Assessing Wellbeing and Student Achievement During COVID-19 Lockdown in Saudi Arabia

By

Shatha Ahmad Alharthi

Bachelor of Computer Science (B.Sc) & Master of Education (Educational Research, Evaluation and Assessment) M.Ed. (Ed. Res., Eval. & Assess.)

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Abstract

The COVID-19 pandemic during 2020-2021 resulted in unprecedented school closures and prolonged remote learning for Saudi Arabian students with unknown consequences at the time for perceived academic performance, mental health, and wellbeing. Prior research had suggested that reduced social interaction could negatively affect wellbeing and contribute to impaired mental health (e.g., depression and anxiety), while also resulting in lower academic performance. However, little was known about the direct impact of the pandemic on academic outcomes and mental health of middle school students in the Saudi Arabian context, particularly during extended periods of remote learning while facing social and educational challenges stemming from the worldwide crisis.

A sequential explanatory mixed methods design was used to investigate this gap in knowledge by exploring the association between middle school students' perceived academic achievement and their levels of wellbeing, depression, and anxiety during the COVID-19 lockdown. In the two-phase study design, an online survey was used to collect quantitative data from 401 Saudi male and female middle school students aged 11-18 in Mecca and Taif cities, KSA. The impact of COVID-19 lockdown on student wellbeing questionnaires, informed by procedures from a global study conducted by the Global Research Alliance (GRA), enquired about students' self-perceived academic achievement, wellbeing levels, mental health status, and other essential factors such as demographic information, socioeconomic status, and frequency of activities during the lockdown. The qualitative phase involved semi-structured interviews with eight Saudi female students from the same population, to delve deeply into adolescents' experiences, perceptions, and insights related to their experiences in lockdown. Structural Equation Modelling (SEM) using Mplus was the primary data analysis procedure used to test the relationships between the identified factors of self-perceived academic achievement.

Results from the SEM revealed that variations in self-perceived academic achievement were significantly associated with wellbeing, gender, and socioeconomic status. Unexpectedly,

depression, anxiety, the amount of schoolwork, and age did not exert a definitive impact on perceived academic achievement. Over half of the students perceived their performance during the lockdown as better than their peers, and they demonstrated adaptability, either maintaining or improving their academic performance amidst challenging circumstances. The study found that students' mental health and wellbeing were largely protected, which was attributed to strong family support, religious practices, and adaptability within a supportive home environment. While most students did not show enduring signs of depression or anxiety, specific subgroups faced distress during the lockdown. Challenges related to remote learning, such as internet connectivity issues and online education platform quality, were evident; however, students exhibited coping in overcoming these obstacles to a significant extent.

The study findings underscore the significance of promoting family support, religious involvement, and educational readiness within the Saudi education framework to enhance student wellbeing and academic achievement during school closures. The findings advocate for enhancing the preparedness of education systems for future disruptions to in-person, classroom learning. Recommendations include investing in high-quality online education platforms, enhancing teacher training for online instruction, and engaging families to support students in lockdown. Future research should focus on longitudinal studies to assess the lasting impacts of pandemic-driven disruptions on student wellbeing and academic performance, as well as on understanding students' coping mechanisms during educational crises.

Keywords: COVID-19, academic performance, mental health, wellbeing, adaptability

Declaration

I certify that this thesis:

1. does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university

2. and the research within will not be submitted for any other future degree or diploma without the permission of Flinders University; and

3. to the best of my knowledge and belief, does not contain any material previously published or written by another person except where due reference is made in the text.

Signed. 

Date: 05/05/2024

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List of Abbreviations

ACER	Australian Council for Educational Research
Alpha (α).	Cronbach's Alpha
AUD	Australian Dollar
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
COI	Community of Inquiry Theory
Coeff H	Coefficient H
FIML	Full Information Maximum Likelihood
GPA	Grade Point Average
KSA	Kingdom of Saudi Arabia
LSAY	Surveys of Australian Youth
MCAR	Missing Completely at Random
MoE	Ministry of Education
p	Probability value
RMSEA	Root Mean Square Error of Approximation
RMSR	Root Mean Square Residual
SCT	Social Cognitive Theory
SDT	Self-Determination Theory
SEM	Structural Equation Modelling
SES	Socioeconomic status
SRMR	Standardised Root Mean Square Residual
SPSS	Statistical Package for the Social Sciences
TLI	Tucker-Lewis Index

UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization
$\chi 2$	Chi-square

Chapter 1: Introduction

The COVID-19 pandemic that gripped the world from the beginning of 2020 until May, 2023 when the World Health Organization (United Nations, 2023) announced the end of the worldwide public health emergency, was the first global crisis that led to the widespread closure of face-to-face instruction in schools in many countries. According to a UNICEF, UNESCO, and World Bank (UNICEF, 2021b) joint report, the pandemic and school closures affected the education of 1.5 billion young people worldwide. With the cessation of in-person classroom education practices, many schools and teachers, out of necessity, moved to delivery of remote, online learning models for students enduring lockdown in their homes (Meinck et al., 2022). While remote learning offered opportunities for the continuation of education for students, the quality and extent of those initiatives were variable, and most approaches served only as partial substitutes for in-person learning (Jack & Oster, 2023; UNICEF, 2021b). The vast majority of students worldwide experienced disruption to their education, and for many countries, it was important to support student learning as much as possible during what was likely to be a prolonged period of school closures (Reuge et al., 2021). Considering the importance of access to high-quality education and wellbeing for successful student outcomes later in life, it was therefore critical to understand how students were being impacted by the COVID-19 lockdowns, both academically and psychologically (Di Pietro et al., 2020; Meinck et al., 2022).

At the beginning of the pandemic outbreak, authorities in the Kingdom of Saudi Arabia (KSA) government acted quickly and decisively to implement progressively strict quarantine regulations and curfews, border closures and travel bans, and social distancing measures commencing in late January, 2020 (Sayed, 2021). Saudi Arabia was one of the first countries to implement school closures and other drastic measures in response to the public health emergency caused by the pandemic, and was one of the last countries to commence a staged reopening of schools (UNICEF, 2021b).

On the 8th of March, 2020, the Saudi Ministry of Education (MoE) directed that all schools, universities, and Quranic religious instruction in mosques be closed to prevent spread of the disease, and that virtual schools and distance education be activated to ensure the education process continued in an effective manner (MoE, 2020a). To facilitate this shift to online learning, the MoE established a new authority to oversee the Saudi Virtual School Madrasati Platform (MoE, 2020b, 2023). One year later, (UNICEF, 2021a) ranked KSA as one of the countries with the highest number of school closure days with an estimated 6.8 million Saudi students having missed almost all classroom instruction during the intervening period.

Saudi schools and universities began a staged return to face-to-face classroom education on 30 August 2021 after 18 months of continuous distance education for students, bringing to an end the most significant disruptions to regular education and socialisation (Alghamdi & El-Hassan, 2022). However, while most schools recommenced in-person learning, other COVID-19 precautionary and preventative measures remained in place until 13 June 2022 when the Ministry of Health (2022) finally announced the lifting of restrictions.

These measures included mandatory mask-wearing in schools, physical distancing within classrooms, regular temperature checks, and the continued use of hybrid learning models to reduce the number of students on campus at any one time. Additionally, vaccination campaigns were intensified, particularly targeting educational staff and eligible students to ensure safer in-person interactions (Ministry of Health, 2021). Public health guidelines also mandated frequent sanitisation of educational facilities and regulated ventilation to minimize the risk of airborne transmission.

As with the school closures at the onset of the pandemic, mosques and other places of worship where Muslims would normally pray communally were also closed, while major religious events normally taking place in KSA, including Umrah and Hajj, were either suspended or drastically downscaled to limit transmission of the disease among worshipers (Ebrahim & Memish, 2020; Ministry of Islamic and Mosque Affairs, 2020). These actions were guided by well-established public health frameworks, such as the Jeddah tool (Yezli & Khan, 2020b), which were

built upon KSAs' unique experience in managing health risks associated with mass religious gatherings (Khan et al., 2021).

With these quarantine measures in place in KSA, the lockdown of students and families in their homes resulted in an unprecedented set of circumstances that had unknown and unpredictable consequences. Thus, it was initially unknown how Saudi students would fare with online learning, both psychologically and academically, during the lockdown, and how students would interact with their families and confinement in the home environment. However, as in other parts of the world, early indications were that lockdown and social distancing interventions in KSA would bring psychological stress and anxiety to the broader community, while young people would be particularly impacted by social isolation and disturbances in their schooling routines. In a rapid review undertaken at the start of the pandemic, Loades et al. (2020) concluded that children and adolescents were likely to experience significant mental health difficulties due to lockdown. A similar review published in February 2020 found high levels of psychological stress among those who had been quarantined in previous pandemics, including children (Brooks et al., 2020). These considerations of previous studies therefore indicated a high probability that children would be negatively affected by the lockdown necessitated by COVID-19.

1.1 Problem Statement and Rationale

Prior to the COVID-19 pandemic, a growing body of research had indicated the connection between adolescent mental health, wellbeing and academic achievement. Slee and Skrzypiec's (2016) study emphasised the importance of student wellbeing in functioning well in education, echoing findings related to mental health and academic performance in previous studies (Burnett-Zeigler et al., 2012; Joe et al., 2009a; Murphy et al., 2015). Previous pandemics and periods of quarantine had been found to negatively affect the mental health and wellbeing of children and adolescents (Loades et al., 2020; Brooks et al., 2020), while natural disasters were shown to have significant impact on both students' mental health (Cahill et al., 2013; Le Brocque et al., 2017) and their academic performance (Berger et al., 2018; Liberty et al., 2016a). Given these findings, there

was a pressing need to investigate how mental health, wellbeing, and demographic factors, including socioeconomic status (SES), were associated with perceived academic achievement among middle school students during the COVID-19 lockdowns in KSA.

As the COVID-19 pandemic progressed, there was an apparent gap in knowledge concerning its effects on middle school students in KSA that had not yet been explored. This gap therefore presented a problem and a barrier to a broader understanding of the impact of the pandemic on this particular cohort of students, which this study sought to reveal.

1.2 Background to the Global Pandemic

Throughout the last century, communities around the world have been deeply impacted by both physical suffering and deep psychological trauma due to a wide range of natural disasters (Choung & Pak, 2023; Gallagher & Hartley, 2017; Zhang et al., 2022) and outbreaks of various communicable diseases (United Nations Office for Disaster Risk Reduction, 2020). One stark historical example is the 1918–1920 H1N1 pandemic known as the Spanish flu, which caused an estimated 50 million deaths worldwide—approximately 6% of the world's population at that time (Erkoreka, 2009; Poulain et al., 2021).

Although humanity has encountered coronavirus epidemics in the past, such as the Severe Acute Respiratory Syndrome (SARS-CoV) (Leung & Keing, 2003) and the Middle East Respiratory Syndrome (MERS-CoV) (AlNajjar et al., 2017), the COVID-19 pandemic presented an unprecedented challenge. This could be attributed to several factors. First, COVID-19 exhibited a rapid transmission rate through human-to-human contact, far surpassing the previous outbreaks of SARS and MERS (Peeri et al., 2020). Second, unlike some other infectious diseases, the therapeutic options for COVID-19 were initially limited and often experimental, making effective treatment a significant challenge (Pujari et al., 2020). Third, at the outset of the pandemic, there was no available and proven-effective vaccine, leaving populations vulnerable to the spread of the virus (Sharma et al., 2020). Consequently, COVID-19 was a severe danger to the human population—the first global crisis to occur in the digital era (Centers for Disease Control and Prevention, 2020).

In response to this formidable threat, most countries, including KSA, quickly adopted a range of restrictive measures designed to mitigate the risk of contagion and ensure the safety of their citizens (Centers for Disease Control and Prevention, 2020). These measures included lockdowns, which compelled people to stay indoors and only step out for essential activities. In addition, social distancing was mandated, cultural, sport and leisure activities were suspended, and schools and higher education facilities were closed (United Nations, 2020).

As in other parts of the world, KSA experienced the social and emotional impact of the global pandemic. Alkhamees et al. (2020) reported the psychological impact on the country's population after mitigating measures were applied, noting symptoms of anxiety, fear, and depression. Furthermore, as the Saudi educational system was seriously affected by the pandemic, students were forced to adjust to studying at home and managing their altered learning modalities with neither in-person teaching and peer interaction nor the same structured direction they normally received from their teachers during face-to-face instruction (Hoq, 2020).

The shift to online learning platforms that characterised the worldwide response to the pandemic created many challenges that were expected to have a detrimental effect on students. For example, not all students had "access to the technology (e.g., devices, internet), intrinsic (self-regulation, autonomy) or social (e.g., a safe quiet place to study or parental support) prerequisites for remote learning" (UNESCO, 2020, p. 14). Furthermore, teachers might not have had the necessary training to teach remotely, as Hamilton et al. (2020) suggested. Therefore, they might have only been able to effectively teach a limited amount of the curriculum using an online platform. In a 2021 study, Sharma and Bumb (2021) identified a range of challenges in online education based on pre-pandemic research, including teacher competence, student motivation, internet access and technical difficulties. Other studies have also identified potential issues including the availability of devices to access online learning in students' homes (Kruszewska et al., 2022) and teachers' digital literacy (Li & Yu, 2022).

1.2.1 COVID-19 Global Lockdown Effect on Student Learning

Across the world during the pandemic many education institutions sought innovative ways to maintain learning opportunities for students while complying with government lockdown measures to mitigate the spread of the disease (Bozkurt & Sharma, 2020). The United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2020) reported that school closures and lockdowns affected more than 91% of the world's student population in at least 188 countries, including KSA. This sudden cessation of normal classroom education programs and the prevention of peer interactions due to social distancing and other protective measures raised concerns regarding the mental health and long-term welfare of students (Bergdahl & Nouri, 2020; Di Pietro et al., 2020), particularly in terms of depression and anxiety and in relation to student academic achievement.

In this situation, the introduction of online learning was a logical strategy to address the interruption of education. However, many schools and educational institutions were unprepared for the unexpected emergency transition regarding any kind of technological and pedagogical design and delivery of such programs (Zimmerman, 2020). UNESCO (2020) reported that within school systems, "decision-making power is fragmented across central, middle layer, and school level (no school autonomy) and there is little time to rigorously assess or trial an overwhelming choice of solutions" (p. 14). As social contact with teachers and peers has been shown to be important for students' wellbeing and academic achievement (Umberson & Montez, 2010), concerns arose that the rapid transition to online learning would negatively affect students' learning, either directly or indirectly, as decreased social interaction and increased levels of depression and anxiety could significantly impact overall academic achievement (Azevedo et al., 2020).

The abrupt adoption of online education brought about unexpected and drastic changes that contrasted sharply with the face-to-face learning to which students and teachers were accustomed. The Organisation for Economic Co-operation and Development (OECD, 2020c) highlighted this finding and emphasised that such hasty adoption of remote learning would cause changes in the quality and effectiveness of teacher-student interactions, while at the same time would reduce

student social contact. How these hasty changes impacted student mental health, wellbeing and academic performance was unknown.

1.2.2 KSA Responses to Health Crises

Prior to the pandemic, the people of KSA had experienced several crises, including one outbreak of SARS (O'Sullivan, 2021) and one of the largest outbreaks of MERS in the Middle East from 2012–2019 (World Health Organization [WHO], 2019). According to Al Najjar et al. (2016), the MERS pandemic caused a wide range of mental health problems among KSA citizens and healthcare providers, including increased levels of depression, anxiety, and other psychological symptoms.

Although the COVID-19 pandemic had a significant psychological impact on people in KSA (Alkhamees et al., 2020), the prior experience of MERS had prepared the country to face the new challenge and to respond promptly. As Algaissi et al. (2020) pointed out, the "MERS epidemics helped KSA to have better informed public health and infection control policies and measures as well as educating the general public on outbreaks and viral epidemics" (p. 11).

The previous SARS and MERS health crises had not involved such extensive lockdowns as COVID-19, leading only to the shortening of school days in the case of MERS, rather than the total suspension of in-person education (Beatrice, 2014). However, KSA had gained some valuable experience in the management of disease outbreaks (Algaissi et al., 2020). Drawing on this experience, KSA began a public awareness programme at an early stage, with messages designed to support readiness and resilience among the public while minimising the effects of misinformation (Alshammari et al., 2020; Joseph et al., 2020). Twitter was actively used by the government as a rapid method of communication, with messages primarily intended to reduce uncertainty, promote effective measures to prevent transmission and reassure the public (Alhassan & AlDossary, 2021).

However, according to Alkhamees et al. (2020), the population was nonetheless psychologically affected when the first cases of COVID-19 appeared in the country. Having only

recently recovered from the MERS outbreak (World Health Organization [WHO], 2019), the country now faced the COVID-19 health crisis and the need to take appropriate protection measures, including the lockdown of schools and religious centres and implementing social distancing rules. This sudden emergency might have considerably increased the impact on mental health among students and the general population.

In response to COVID-19, KSA applied lessons learned from previous outbreaks, enforcing strict public health measures from January 2020 (Sayed, 2021). These measures included extensive lockdowns, curfews, and restrictions on travel and social gatherings, particularly stringent in the early phases of the pandemic (Ministry of Health, 2020). Movement outside the home was restricted to essential activities, with curfews and specific travel hours regulated. Social gatherings were limited, with regulations evolving as conditions improved (Ministry of Health, 2022). Despite these restrictions, the close-knit nature of Saudi families mitigated some social isolation by enabling continued family interactions within household complexes. As infection rates fell, measures were gradually relaxed, leading to the phased reopening of schools and public spaces by June 2022 (Alghamdi & El-Hassan, 2022).

1.2.3 The Madrasati Online Learning Platform

In response to the pandemic, the Ministry of Education in KSA turned to an online learning platform named *Madrasati* (meaning "My School") for distance learning in the academic year 2020-2021 (MoE, 2020b). This platform was intended to provide students, teachers, and parents with a comprehensive virtual learning experience that would replace the face-to-face teaching that was no longer possible. The platform was designed to facilitate communication between students, teachers, and parents, as well as providing access to a wide range of educational resources.

One of the primary features of Madrasati was the Microsoft Office suite of programs, which included email service, the video conferencing software "Teams", and various communication channels that allowed students to easily connect with their teachers and peers (Aldossry, 2021). The platform also provided videos, educational books, cartoons, and a bank of test questions used to

supplement learning. Overall, Madrasati represented an important innovation in KSA's education system, intended to provide students with access to high-quality education regardless of their physical location. By leveraging the power of technology, Madrasati was intended to ensure that KSA's youth could continue to learn and develop, even during times of crisis (Aldossry, 2021; Aljizani & Saleem, 2023).

1.3 Overview of the Saudi Education System

1.3.1 Structure of the School System in KSA

The Saudi education system is comprised of public schools, private schools, and homeschooling options, governed by the Ministry of Education. The system is divided into four stages: kindergarten, primary (grades 1-6), intermediate (grades 7-9), and secondary (grades 10-12) (Ministry of Education, 2024). Public schools constitute the majority, particularly in rural areas, while private schools are more prevalent in urban centers, offering specialised curricula and international programs (MoE, 2024).

The Ministry of Education provides oversight and regulation to ensure educational standards are met across all types of schools. For further details on the structure of the Saudi school system, refer to the Ministry's official resources (MoE, 2024).

1.3.2 Teacher and School Qualification Standards

In KSA, teachers are required to possess specific qualifications, including a bachelor's degree in education or a related field, and must undergo professional development as mandated by the Ministry of Education (Alamri, 2020). Schools must meet accreditation standards, which are regularly assessed by the Ministry to ensure quality education (MoE, 2024). These standards are essential for maintaining consistency across the Kingdom's diverse educational institutions. For detailed information on these qualifications and standards, see the Ministry's official guidelines (MoE, 2024).

1.3.3 Secondary School Curriculum and Trends

The secondary school curriculum in KSA is designed to offer both academic and vocational tracks, in line with Vision 2030 educational reforms. These reforms aim to improve student outcomes and align the curriculum with international standards, including comparisons with OECD averages (OECD, 2020b). Recent changes emphasise critical thinking, digital literacy, and vocational skills to prepare students for higher education and the labour market (MoE, 2024).

1.3.4 Regional Differences in Schooling

Significant regional disparities exist in school density, access to resources, and educational quality across the Kingdom. Urban areas, particularly in regions like Riyadh and Jeddah, generally offer more educational opportunities and better facilities compared to rural areas (Alrashidi & Phan, 2015). The Ministry of Education has implemented initiatives to reduce these disparities by improving school infrastructure and access in underserved regions (MoE, 2024).

1.4 KSA Students' Mental Health and Wellbeing

Mental health, defined by the World Health Organisation (2014) as the ability to cope with life stresses and contribute productively to one's community, became of critical concern during the pandemic. In a review of the psychological and social effects of the emerging pandemic undertaken early in 2020, Dubey et al. (2020) had warned that COVID-19, would significantly impact mental health and exacerbate psychosocial issues globally; however, they did not explore the potential impact on wellbeing.

In this study, it is important to distinguish between mental health and wellbeing as separate concepts, despite their previous interchangeability (Goldberg et al., 1997), in order to establish a nuanced understanding of the effects of the pandemic on school students. Established frameworks were used to gauge the mental health and wellbeing of students in the KSA. The definitions of mental health and mental illness were derived from Goldberg et al. (1997), and the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association,

2013). Goldberg et al. (1997) described mental health as reflecting psychological maturity and assessed it based on the presence or absence of mental illnesses such as depression and anxiety, defined by the DSM-V (American Psychiatric Association, 2013) as symptoms of poor mental health.

Wellbeing, on the other hand, is a broader concept that considers both cognitive and emotional components of an individual's state (Satici et al., 2020). Wellbeing refers to an individual's self-assessment of life satisfaction, effectiveness, positive emotions towards oneself and others, and psychological maturity (Goldberg et al., 1997). In the context of education, wellbeing refers to the state where students are able to flourish, achieve academic success, and pursue personal goals (Slee & Skrzypiec, 2016). According to Keyes (2006), wellbeing is conceptualised as a spectrum, ranging from flourishing to languishing. Flourishing entails successful functioning and positive self-perception, while languishing represents a state lacking positive functioning. Moderate wellbeing is where most individuals fall (Keyes, 2006).

To consider student wellbeing, this study adopted a psychological approach, focusing on internal experiences rather than sociological factors. The sociological approach to wellbeing considers objective measurements of wellbeing alongside subjective factors, to uncover the external factors which affect levels of languishing and flourishing across a population. The psychological approach instead focuses on individuals' subjective, internal evaluation of life satisfaction and functioning (Slee & Skrzypiec, 2016). This study adopted the psychological approach to wellbeing in order to explore the participants' own perceptions of their experience of the pandemic and its effect on their academic performance.

In the school context, student wellbeing has been identified as essential for academic success (Slee & Skrzypiec, 2016). Therefore, one of the objectives of the current research was to explore the extent to which, students' subjective wellbeing was reduced during the COVID-19 lockdowns due to missing the social contextual factors normally found at school. Since lockdowns resulted in less direct contact with teachers and peers, which would likely impact wellbeing, there

would likely also be effects on students' academic performance. This effect was what the study sought to determine by exploring the students' own perceptions of their academic achievement during the lockdown.

1.5 Academic Performance

In the field of education, students' mental health has been a priority for some time, in response to the significant effects of mental health difficulties among children and adolescents, recognised by the World Health Organisation (WHO, 2020). Students suffering from poor mental health might also experience difficulties with academic success (Grøtan et al., 2019; Storrie et al., 2010). A systematic review conducted by Grøtan et al. (2019), documented the link between mental distress caused by low self-efficacy and poor academic progress. However, the mechanisms of mental distress that can lead to lower academic outcomes are still not fully understood. Moreover, a longitudinal study by Eisenberg et al. (2009) conducted in the United States showed that students with mental health problems suffered from delayed academic success and lower grade point averages (GPA), which suggested that mental health impacts academic success.

Furthermore, Eisenberg et al. (2009) found that depression in college students was a major predictor of lower GPA and a higher likelihood of prematurely leaving school. Joe et al. (2009b) obtained similar results in a study of Grade 12 American students. Evans et al. (2018) pointed out that high school students with depression had substantially lower GPAs than their classmates without depression.

Several other studies (Andrews & Wilding, 2004; Stallman, 2008; Stewart-Brown et al., 2000) confirmed the prevalence and seriousness of such mental health issues within education and pointed out their negative impact on wellbeing, scholastic performance, and the ability to flourish in an academic environment. However, as the causal link between mental health and academic achievement remains unclear, the association between depression and/or anxiety and academic achievement was deemed to require further investigation to ensure that future interventions could effectively support students who struggle with such issues.

Perceived academic performance, which refers to students' cognitive perception of their grades and the attitudes and procedures involved in school achievement (de la Fuente et al., 2017), is an academic variable representing high levels of concern, principally because of its association with maladaptive school behaviours such as truancy (OECD, 2014), which impact on school grades (Ferla et al., 2010; Izaguirre et al., 2023; Respondek et al., 2017). As with other studies, due to the shift to remote learning during the COVID lockdown in KSA, traditional measures of academic achievement, such as test scores, grades, and standardised assessments, were not feasible to access. As a result, this study focussed on assessing perceived academic achievement, which reflects students' self-reports of their academic progress. This decision arose from the necessity to adapt to the unique circumstances imposed by the pandemic — making it an essential measure in the context of remote learning.

In previous research such as the Longitudinal Surveys of Australian Youth, or LSAY (NCVER, 2009), perceived academic achievement has been found to be a good indicator of actual academic achievement when compared with objective achievement tests, making it a sound basis for analysis in this study. In the current study, understanding perceived academic achievement during the COVID-19 pandemic was particularly important as reflected in Saudi students' subjective experiences of disruptions to traditional schooling and remote learning. Perceived academic achievement was based on students' self-reported assessments of their own learning and progress relative to their peers rather than on test scores or grades. This was intended to help identify areas where students might need additional support or resources to succeed academically (Basri et al., 2022). Measuring perceived academic achievement during the pandemic was intended to help KSA educators and policymakers understand the impact of the pandemic on student learning and assist them in identifying strategies to support students' academic progress.

1.6 Demographic Factors Affecting Academic Performance

Prior research (Haveman & Wolfe, 1995; Sirin, 2005) has indicated that socioeconomic status (SES), which encompasses factors such as parental education and household income, together

with other demographic elements, such as gender and age, influences academic achievement among middle school students. In a 2005 meta-analysis, Sirin (2005) found a significant relationship between SES and achievement. Other studies in several countries have confirmed the connection between higher SES and higher academic achievement (Bae & Wickrama, 2015; Berger & Archer, 2018; Vadivel et al., 2023; Zhang et al., 2020), including among secondary school students in Saudi Arabia (Al-Rajraji, 2010).These past studies have concluded in showing that higher parental education and greater household income correlate with enhanced academic achievement. This relationship has been attributed to various factors, including levels of parental expectations and engagement with their children's education (Duan et al., 2018; Poon, 2020) the increased availability of resources, for example, parental time for supporting learning (Ullah, 2022) and parents' level of cultural capital (Sengonul, 2022). Conversely, research has suggested that lower SES levels can negatively impact academic achievement due to fewer resources and reduced educational opportunities (Chung, 2015; Liu et al., 2022).Demographic factors, including gender and age, have been shown to be associated with academic success (Nasseef, 2015; Wladis et al., 2015). Notably, having more siblings was identified as a potential limitation on a student's access to essential resources, such as technology and private study spaces, leading to possible academic setbacks (Li et al., 2021).

In addition, the challenges of adapting to online learning could be more pronounced for groups such as girls, younger students, and those influenced by the unique intersection of cultural, societal, and religious norms characteristic of KSA (Alomair, 2015). For example, Wladis et al. (2015) suggested that girls and younger students might experience more challenges when adapting to online learning modalities than their male and older counterparts due to lower self-regulation, less technological knowledge or access, difficulty with time management, or limited teacher support. This can be attributed to cultural expectations and responsibilities, particularly in societies like KSA, often impose greater domestic duties on girls, potentially lowering their self-regulation (Alomair, 2015; Nasseef, 2015). However, girls may offset these challenges by accessing more

social support (Rueger et al., 2008). In contrast, boys tend to exhibit higher levels of externalizing behaviours and self-regulation difficulties, which can hinder their adaptation to online learning, especially during stressful periods like the pandemic (Cho & Shen, 2013; Wang et al., 2013; Deighton et al., 2017). These complexities underscore the importance of examining gender differences in student experiences during the pandemic, a focus of this study.

In contrast, in another study of problematic behaviours in Saudi children, Binmahfouz (2020) found that "[g]ender was a significant predictor of externalising behaviours with boys having significantly higher scores than girls" (p. 44), which could indicate boys are more likely to have greater difficulty self-regulating, a difficulty which might be exacerbated in a stressful environment (Cho & Shen, 2013; Wang et al., 2013) such as lockdown. These findings suggest that female and male Saudi students might have responded differently to the pandemic disruption and lockdown circumstances when adapting to a new online learning mode and, therefore, this study also investigated the effect of gender on student perceptions.

In KSA, cultural and religious norms posed an additional layer of challenges for students. Al Lily et al. (2021) suggest that a range of culturally specific issues made education during the pandemic particularly challenging in Arab cultures. These include the importance of physical presence, the private status of the home, and the status of the teacher, which may have been challenged by the shift to home learning (Al Lily et al., 2021). Given the specific cultural norms and religious considerations that dictate gender-based segregation in KSA, this study aimed to explore how these factors would interact with students' academic achievement. Thus, this study examined the associations between demographic background (gender, age) and SES (mother's education, father's education, household income) with perceived academic achievement among middle school Saudi students, aged 13–15, during the pandemic lockdown.

Research has also shown that the relationship between SES and academic performance can become more pronounced as students grow older, particularly during critical educational transitions

(Caro et al., 2009). These findings underscore the complex and multifaceted nature of the relationship between demographic factors and academic achievement, highlighting the importance of considering these factors in educational research and practice. More details are provided in Chapter 2, Section 2.8.

1.7 The Islamic Context

The COVID-19 lockdown in the KSA offered a unique subject for the study of an Arabic, Islamic society in crisis. This is because KSA is a monotheistic society with shared values and beliefs throughout all levels of the population, and religion has a major influence on Saudi citizens (Sahin, 2018). Religion is a substantial feature of everyday life in KSA, and the moral teachings of Islam are firmly embedded in the community, the family, and the education system. Furthermore, as Albertsen and de Soysa (2018) pointed out, the country has fewer external cultural influences from non-Arabic immigrants and less cultural and religious diversity than many other nations.

The strength of Islamic belief and strict adherence to religion are fundamental factors that distinguish Saudi society from other nations during catastrophic times (Sahin, 2018). During the COVID-19 pandemic, religious scripture and religious figures were effectively used to encourage citizens to observe social distancing and personal hygiene measures (Alhajji et al., 2020). The lockdown efforts reduced infection and death rates by 27% over earlier epidemics, showing that these measures constituted an effective COVID-19 prevention strategy (Alkhaldy, 2020).

On social media, there is evidence that religion was turned to by many in response to the extreme circumstances of the pandemic; Alhajji et al. (2020) revealed in their analysis of 53,127 tweets during the pandemic that religious practices, such as sharing Quranic verses, posting prayers against COVID-19, discussing virtual religious gatherings, sharing faith-inspired personal experiences, and promoting charity were positively received by Saudi Twitter users. Investigations into this unique cultural and religious environment extend the broader understanding of how socio-cultural contexts shape responses to pandemics within the adolescent educational sphere.

Due to the COVID-19 pandemic lockdown, many religious practices in KSA, such as regular prayer, gatherings at holy mosques, and observance of holy days of worship, were curtailed or entirely interrupted (Joseph et al., 2021). For instance, in March 2020, the Saudi government suspended prayers at mosques across the Kingdom. As a result, community members who were accustomed to praying five times per day at their local mosque, along with additional frequent religious ceremonies, were suddenly cut off from one of the most fundamental aspects of their lives. During this time, the annual Hajj pilgrimage to Mecca was also suspended for the millions of followers of Islam (Algahtani, Alzain, et al., 2021; Alzahrani et al., 2020). Families could not gather for communal prayer or socialise within a religious context, which caused profound and deeply felt reactions throughout entire communities (Yezli & Khan, 2020a). Because these restrictions had not happened before, the effects of the disruption to normal practices of Islamic religious worship were not known.

Another dimension to the context of this study is the strict gender segregation and prevalence of social and cultural conservatism within the Saudi educational framework, where direct communication between unrelated males and females is prohibited for cultural and religious considerations (Baki, 2004; Mutambik et al., 2020). As a consequence, mixed-gender classrooms in Saudi schools are strictly prohibited, resulting in separate facilities, teaching staff, and learning environments for male and female students. Furthermore, Saudi society adheres to well-defined societal norms that prescribe specific roles and expectations based on gender. These cultural influences are instrumental in shaping various aspects of education, from curriculum design to teaching methods (Hamdan, 2004). Alharbi (2014) has explored the ways in which gender has affected the development of educational policy in KSA, where girls and boys did not study the same curriculum until King Abdullah's reforms began in 2006. Al Lily et al. (2021) have reported on the specific challenges related to gender in the shift to online learning during the pandemic, both through the increased communication across traditional gender boundaries within the family during home learning, and in relation to the pressures faced by female teachers to maintain face covering

during online teaching, a measure which is not necessary in gender-segregated in-person classrooms.

There are pronounced social, economic, and gender disparities prevalent in KSA contributing to unequal access for some students to education, which results in differing academic achievement levels for some with disadvantages, such as females and students with disabilities or from lower-income families, while also reducing career prospects (Alsulami, 2018). These elements create a unique context for understanding the impact of the pandemic on the KSA's middle-school students. The question of how gender would affect students' ability to cope in lockdown in the context of changes in usual gender segregation is not yet fully understood; thus, gender was an important element to consider among other demographic factors in this study.

1.7.1 The Role of Extended Families in KSA Lockdown

Families in KSA are predominantly extended in nature, often including aunts, uncles, and grandparents living together in one household with one set of parents and their children (van Geel, 2016). In KSA, the extended family structure might have desirable effects on the wellbeing of members, including its children, since they benefit from a greater support structure and sharing of roles and responsibilities than occurs in most nuclear families (Al-Khraif et al., 2020). According to several researchers, including Al-Khraif et al. (2020) and Binmahfouz (2020), the support of extended family relationships in KSA and the quality of interactions at home would have an important and beneficial role in improving children's self-esteem and mental health, while reducing depressive symptoms caused by loneliness and lack of social interaction during the pandemic.

As in other parts of the world, families in KSA were affected during the pandemic, with many experiencing job and income loss, fear of infection, limitations on travel and socialising, and restrictions on religious observance (Al Gahtani et al., 2020; Al-Khraif et al., 2020; Alkhamees et al., 2020). Parveen (2020) reported losses suffered by the country in different sectors, including air transportation and business—two areas of the Saudi economy that faced challenges during lockdown. In a later study, Algahtani, Hassan, et al. (2021) indicated the decline in quality of life

experienced by many Saudi families during the pandemic, which included environmental, social, and religious dimensions, although at the time of this study these effects were not known. As the pandemic prevented usual educational, economic and cultural activities, including religious practice outside the home, it was considered important to investigate the effects that this disruption would have on family dynamics in relation to the academic achievement, mental health and wellbeing of school students.

1.7.2 Research Locations

To investigate factors that may have influenced academic achievement during the COVID-19 pandemic, particularly those related to mental health and wellbeing, this study sought the most effective manner to gather useful data in unusual circumstances. The study was conducted during the period of the COVID-19 pandemic when social distancing and travel restrictions in KSA made collection of data from other locations, regions, or the entire population unfeasible. The best option therefore was to focus research on locations and school systems with which the researcher was familiar. The ancient cities of Taif and Mecca, which are located in the Mecca Province of the central western region of KSA (see Figure 1.1), were thus selected as the two research settings for the conduct of the study. The two cities are situated in relatively close proximity.

While Taif and Mecca are typical Saudi cities in some respects, they both have important religious and historical significance to Arabs and Muslims throughout the world and are an important part of the Islamic context of KSA. Taif is one of the principal gateways for the millions of Muslim worshipers who undertake the annual Hajj pilgrimage, while Mecca is the birthplace of the Prophet Muhammad and, thus of Islam itself. Both Taif and Mecca are moderate in population size, with Taif having a population of 453,000 (2020), and Mecca 2 million (2020); however, Mecca's population is denser and more urbanised (Alkhaldy, 2020; World Population, 2021). Student data gathered from these cities was useful for this study because of their representative status as urban environments in KSA with distinct cultural, religious, and population attributes.

Figure 1.1

Map of KSA Showing Study Location Cities of Taif and Mecca (Mapsland, 2018)

1.8 Research Gap

The existing body of literature has identified several influential factors shaping academic achievement during the COVID-19 lockdown period (Kuhfeld et al., 2020). These factors encompass the disruptive influence of subjective wellbeing and mental health on learning (Aucejo et al., 2020), the crucial role of online learning environments (Garrison et al., 2000), and the significance of demographic factors such as household income and parental education (Reardon, 2011). Most researchers concur on the negative impact of the pandemic on students' wellbeing, academic achievement, and mental health, underscoring the exacerbating role of outside forces in these issues (Lee, 2020).

However, despite extensive research investigating the effects on students of disruptions in education during the COVID-19 pandemic, the bulk of the literature mainly focused on early or higher education contexts, whereas there appeared to be a paucity of research on the unique experiences and needs of middle school students (Aucejo et al., 2020; Tanveer et al., 2020). Furthermore, the association between student depression, anxiety, wellbeing, and perceived academic performance during the lockdown in KSA was notably underexplored. Moreover, studies of Saudi middle school students during the pandemic were not found during an extensive literature

search, including systematic reviews. For example, Alghamdi (2021), Asmadi et al. (2021), Oraif and Elyas (2021) and Tanveer et al. (2020) all studied pandemic effects on Saudi university students. Other studies in KSA, such as Alkhamees and Aljohani (2021) and Mann et al. (2020), incorporated all Saudi education levels without giving specific attention to middle school students.

Thus, while measuring perceived academic achievement during the pandemic has been studied (Cortés-Albornoz et al., 2023; Panagouli et al., 2021) this investigation adds value by specifically considering the experience of middle school students within Saudi Arabia. Further, it sought to additionally investigate the association between students' mental health, wellbeing, and perceived academic achievement.

Despite the critical nature of this demographic, limited research had specifically addressed this group, hence the present study sought to fill this gap in knowledge by examining middle school student responses to the pandemic in the Saudi context. This current research also appears to be the first to investigate Saudi middle school students' extent of supportive relationships within the home and religious contexts during the pandemic lockdown. It is therefore hoped that the findings of this study will make a significant contribution to knowledge and play a useful role in shaping educational policies and bolstering disaster-preparedness of the education system for the benefit of Saudi youth.

1.9 Study Aims and Objectives

It was anticipated that the shifting of learning from traditional face-to-face classroom settings into predominantly unfamiliar online platforms would pose numerous challenges, not just academically, but also mentally and socially for students worldwide. Researchers had suggested that the adverse impacts on mental health and wellbeing, characterised by increased occurrences of depression and anxiety, would lead to concerns about students' academic achievements (Bergdahl & Nouri, 2020; Di Pietro et al., 2020).

Saudi Arabia, like many countries, implemented similar strategies to address the interruption in education as those adopted in other countries, notably, the introduction of online learning via the Madrasati platform (MoE, 2020b). It was expected that the rapid shift to a digital learning environment, compounded by the broader socio-economic disruptions induced by the pandemic, would have substantial consequences for the students in KSA (Baumeister & Bushman, 2020; Brooks et al., 2020; Raj & Fatima, 2020), and that these disruptions might compound existing differences based on socio-economic status (Bonal & González, 2020). It was hypothesised that these strains would further escalate when considering the additional layers of challenges presented by unique cultural paradigms, such as strict gender segregation and religious norms typical of KSA (Al Baki, 2004).

It was speculated that altered learning modalities caused by the closure of schools would lead to a reduction in learning opportunities and decreased time spent on learning, and that the curtailment of time spent learning at school during the pandemic could have a negative impact on students' academic achievement (Meyers & Thomasson, 2017; Faherty et al., 2019). Given that the pandemic disrupted traditional schooling and might have resulted in significant implications for students' academic progress (OECD, 2020b), it was crucial to investigate how these factors impacted students in the Saudi context.

Little previous research was available on the effect of the amount of schoolwork on perceived academic achievement in this age group. However, it was possible that student perceptions of the amount of schoolwork they undertook would change due to the shift to online learning during the pandemic. Therefore, it was deemed important to investigate whether students felt that the amount of schoolwork had increased, decreased, or remained the same, and whether any change in amount of schoolwork had affected their perceptions of their academic achievement.

An investigation of adolescents was important because they represent a highly vulnerable group in the context of the COVID-19 pandemic. Adolescence is known to be a sensitive period for sociocultural processing when young people are prone to experiencing loneliness, anxiety, and

depression due to external negative influences (Steinberg & Morris, 2001). Facing a myriad of predicaments during the pandemic, such as social deprivation and stress, could have escalated Saudi students' susceptibility to emotional, behavioural, and wellbeing challenges (Wiguna et al., 2020).

An understanding of the unique pandemic experiences of Saudi middle school students was particularly important. Simultaneous with experiencing the disruptions of the pandemic, this cohort of students was undergoing significant adolescent developmental transitions in biological, hormonal, and psychosocial factors (Patel et al., 2021). Moreover, they were forming relationships with parents, teachers, and peers, while engaging in social and cultural activities and other life skills, which could be critical to their lifelong wellbeing, resilience, and sense of self-identity as they were growing from puberty toward adulthood (Steinberg & Morris, 2001). Exploring these experiences and their impact could be vital in the process of designing effective future interventions for promoting student wellbeing and academic success in crises such as this that disrupt routine classroom learning (World Health Organization [WHO], 2020a). Therefore, to address this issue, this study sought to investigate student wellbeing, mental health, and academic achievement during the altered learning modalities of school during the COVID-19 pandemic lockdown in KSA.

The study gained its broader importance through its implications for improving education policies and practice in KSA. It sought to offer valuable insights for stakeholders such as educators, administrators, policymakers, religious leaders, and social service providers from the examination of students' experiences during the challenging pandemic period. The knowledge gleaned could support these stakeholders in better responding to future educational disruptions and in anticipating potential academic and mental health challenges during such transitions. The findings could inform the Saudi Ministry of Education and other stakeholders in pre-emptively devising strategies to maintain students' wellbeing and academic achievement during potential future school closures through effective implementation of remote and online learning solutions.

Further, research findings could also identify groups for whom the lockdown had been more difficult than for others. For example, students with limited access to online services or those in homes lacking a conducive environment for study could have experienced a greater disadvantage.

Assessing the intricate issues within this context, this study sought to examine the complex interplay of various factors among middle school Saudi students during the COVID-19 pandemic lockdown. Specifically, it investigated the association between wellbeing, mental health (depression and anxiety), demographic background (including gender and age), socioeconomic status, and the amount of schoolwork, and their impact on perceived academic achievement. The primary research question this study sought to address was how wellbeing, mental health (depression and anxiety), demographic background, and the amount of schoolwork were associated with perceived academic achievement for middle school students during the COVID-19 pandemic lockdown in KSA.

Since COVID-19 resulted in the lockdown of many schools worldwide, including the extended lockdown in KSA, this research and its findings were novel in that a situation like this had not occurred previously. The return of KSA schools to pre-lockdown, classroom learning conditions occurred in January 2022, which made it all the more important to understand the impacts of the pandemic associated with the wellbeing and academic performance of students. This understanding is crucial to inform government authorities and stakeholders in addressing the needs of students in the event of future pandemic lockdowns. Thus, the potential publication of the research and presentation of the results by the researcher in various academic platforms and scholarly venues is expected to contribute to knowledge. This knowledge will assist educators in understanding how school closures during a disaster can be disruptive to student education. It will explain how a sudden shift to a remote learning situation affects students' learning processes and academic outcomes, while also pointing to the need for designing post-disaster programs that assist students in regaining their confidence and improving their future academic outcomes.

1.10 Research Questions That Guided This Study

The primary research question addressed by this study was:

How are wellbeing, mental health (depression and anxiety), demographic background, and the amount of schoolwork associated with perceived academic achievement for middle school students during the COVID-19 pandemic lockdown in KSA?

In addition, four secondary research questions for this research were developed, which comprised the following:

1. Is there an association between wellbeing and perceived academic achievement in middle school Saudi students?

2. Is there an association between mental health (depression and anxiety) and perceived academic achievement in middle school Saudi students?
3. Is there an association between demographic background (gender, age) and perceived academic achievement in middle school Saudi students?
    a. Is there an association between SES (mother's education, father's education, household income) and perceived academic achievement in middle school Saudi students?
4. Is there an association between the amount of schoolwork done during lockdown and perceived academic achievement in middle school Saudi students?

1.11 Contribution to Knowledge

Since COVID-19 resulted in the lockdown of many schools worldwide, including the extended lockdown in KSA, this research and its findings were novel in that a situation like this had not occurred previously. The return of KSA schools to pre-lockdown, classroom learning conditions occurred in January 2022, which made it all the more important to understand the impacts of the pandemic associated with the wellbeing and academic performance of students. Prior to the pandemic, the existing body of literature had identified several influential factors shaping academic achievement. These factors encompassed students' levels of wellbeing and mental health, alongside demographic factors including age, gender and SES.

During the pandemic most researchers concurred that there would be a negative impact on students' wellbeing, academic achievement, and mental health, underscoring the exacerbating role of outside forces in these issues (Lee, 2020). However, it was not known at the beginning of this study how students in KSA would be affected.

Thus, this current study fills a gap in the literature by examining middle school student responses to the pandemic in the Saudi context. This current research also appears to be the first to investigate Saudi middle school students' perceived academic achievement, mental health and wellbeing within the home and religious contexts during the pandemic lockdown.

In the second phase of this study, a holistic and complex account of the research problem was developed. The answers to these questions were elicited by gathering participant experiences, aiming to report from multiple perspectives and identify numerous factors involved in middle school Saudi students' experiences during the COVID-19 pandemic. This study utilised an explanatory mixed methods sequential design (outlined in Chapter 3) to investigate the interplay of wellbeing, mental health (depression and anxiety), demographic background (including age and gender), socioeconomic status (including parental education and household income), and the amount of schoolwork on the perceived academic achievement of middle school students in KSA during the lockdown. An extensive review of the literature revolving around these interconnected factors and their impact on academic achievement is provided in Chapter 2.

Chapter 2: Literature Review

This chapter reviews relevant literature to present a theoretical framework for investigating the impact of the pandemic lockdown on academic achievement in KSA.

Prior to the pandemic, the relationship between learning and mental health in children and adolescents had not been widely examined (e.g., Cavioni et al., 2021; García-Carrión et al., 2019), and only a few studies had looked specifically at wellbeing as a factor in the achievement of academic performance outcomes. Slee and Skrzypiec's (2016) study underscored this connection by highlighting that student wellbeing is a critical component of functioning well in school and other life domains —a perspective that had been highlighted by other studies, including Burnett-Zeigler et al.'s (2012) examination of the mental health problems of children and adolescents presenting in primary care clinics, and Murphy et al.'s (2015) exploration of how the mental health of students in first grade predicted academic achievement in third grade. However, these studies primarily focused on wellbeing and its relation to academic achievement under normal teaching-learning conditions rather than during periods of stress, such as experienced by students during the pandemic.

Because the pandemic replaced face-to-face classroom learning with online learning and forced teachers and students to adopt new online strategies, this study saw potential value in considering the impact that students' isolation from their teachers and peers had on their mental health and wellbeing in relation to their academic outcomes and perceived academic achievement.

In conducting the literature review, a systematic approach was used to ensure the inclusion of relevant and high-quality studies. A range of search terms was employed, including "adolescent well-being," "COVID-19 wellbeing," "student achievement," and "mental health during lockdown." The search was conducted using several academic databases, such as ERIC, Scopus, google scholar, and the Flinders university's library database, to capture a broad spectrum of peer-reviewed literature.

The initial search yielded 1,051 sources, including websites, reports, and peer-reviewed articles. After removing 251 duplicate records, 800 studies remained for further screening. The titles and abstracts of these studies were assessed for relevance, considering key terms related to mental health, wellbeing, academic achievement, and the impact of COVID-19 lockdowns on students. Studies that did not align with the focus of this research were excluded. Following this preliminary screening, [e.g., 350] studies were selected for full-text review.

The full-text articles were then reviewed using specific inclusion criteria. These criteria included relevance to the student population, focus on mental health and well-being during COVID-19 lockdown, and geographical or contextual similarities to the study setting. As a result of this screening process, [e.g., 150] studies were excluded, and 800 studies were included in the final review. This process ensured that the literature reviewed was both comprehensive and directly relevant to the research objectives.

The quality of the literature was assessed by evaluating the methodological rigor of each study, including the design, sample size, data collection methods, and validity of the findings. Preference was given to studies published in peer-reviewed journals with a strong empirical basis, ensuring that the literature included was of high quality and contributed meaningful insights to this thesis.

2.1 Mental Health and Wellbeing: Definitions and Differences

Although mental health and wellbeing have previously been used interchangeably by both the lay community and academic researchers (Goldberg et al., 1997) and despite a diversity of definitions, they are now understood as two distinct concepts (Keyes, 2006). Therefore, it is important to clearly recognise these distinctions to narrow the scope of the research and show how both concepts are used in the context of this investigation. Furthermore, it is essential to acknowledge that the present study took a psychological approach to these concepts rather than a sociological one in which wellbeing and mental health are gauged in relation to an individual's

social circumstances and interactions, including their relationships, education, and environment (Haslam et al., 2009; Mitchell & LaGory, 2002).

This current research adopted the definition of mental health put forward by Goldberg et al. (1997), who stated that mental health is a function of psychological maturity that defines a person's full effectiveness and life satisfaction, including positive feelings towards oneself and others. This study considered mental health in terms of the presence or lack of mental illness such as depression and anxiety, as defined by the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013; Keyes, 2006).

This current study delved into wellbeing from psychological perspectives, specifically focusing on an individual's internal experiences, particularly their emotional and cognitive wellbeing. Psychological wellbeing encompasses an individual's self-evaluation of life satisfaction and effectiveness in life, including positive feelings towards oneself and others, as well as psychological maturity (Goldberg et al., 1997). By focusing on subjective evaluations of wellbeing, the present study emphasises the psychological perspective of wellbeing over the sociological perspective. In Huebner (2004) distinction between these perspectives, the sociological approach uses objective data to assess wellbeing, as opposed to the self-perception of individuals about their own life satisfaction. In the sociological approach, wellbeing is generally assessed through social indicators gathered by public institutions, such as, in the case of school students, school enrolments, levels of expulsion and exclusion, and literacy levels (Slee & Skrzypiec, 2016). The sociological approach considers these measures alongside subjective factors to assess the wellbeing of individuals in relation to external factors (Slee & Skrzypiec, 2016). In the psychological approach, wellbeing is measured through the assessment of individual psychological states, emotions, perceptions, and cognitive evaluations that contribute to overall satisfaction and happiness, with less emphasis on the influence of specific external factors (Slee & Skrzypiec, 2016).

In capturing the lived experience of Saudi students during the COVID-19 lockdown, this study particularly focused on the connection between internal perceptions of emotional state and life satisfaction and perceptions of academic achievement.

The concept of wellbeing "has been divided into two streams of research, one that equates wellbeing with happiness and the other with human potential that, when realised, results in positive functioning in life" (Keyes, 2002, p. 4). Keyes suggested that the first stream is related to emotional wellbeing and follows the "hedonic tradition," while the second is associated with social and psychological flourishing pursuing "the tradition of eudaimonia" (p. 5). In the first approach, wellbeing entails individuals reaching a general state of happiness and satisfaction with life, whereas the second approach focuses on individuals becoming well-functioning.

An individual's level of wellbeing can also be described across a spectrum from flourishing to languishing (Keyes, 2006). According to Deiner et al. (2009), flourishing is a combination of functioning successfully and feeling good about oneself. In contrast, at the lowest end of the spectrum, an individual is languishing, which is described by Carter and Liddle (2010) as "a state that lacks positive functioning and has an emphasis on the individual merely existing from day to day" (Carter & Liddle, 2010, p. 9). Thus, despite a person having good mental health with no clinical mental disorders or adverse effects such as depression or anxiety associated with day-to-day living, a person may be languishing in terms of wellbeing and not functioning optimally due to personal or physical issues. According to Keyes (2006), the state of moderate wellbeing, situated between languishing and flourishing, is where most of the population finds itself.

In this research, the theories, interpretations, and approaches taken by Carter and Liddle (2010), Deiner et al. (2009), and Keyes (2006), and Slee & Skrzypiec (2016) were used as the basis from which to measure, assess, and evaluate the wellbeing of KSA students.

2.2 Academic Achievement

One of the primary aims of education is academic achievement, which significantly influences students' career paths and directly affects their motivation and learning strategies (Negru-

Subtirica & Pop, 2016; Respondek et al., 2017). Academic achievement is often measured by students' grades based on assessed schoolwork and examinations, although it is also understood to be a multifaceted concept (Negru-Subtirica & Pop, 2016).

According to Fuente et al. (2008), academic performance encompasses learning outcomes across three dimensions: conceptual, procedural, and attitudinal. This means that academic performance can be understood as a combination of achievements in exams (conceptual), attendance and practical work (procedural), and participation and voluntary contributions (attitudinal) (de la Fuente et al., 2017).

In Saudi Arabia, prior to the pandemic students' academic achievement was assessed through both formative and summative measures (Al alhareth & Dighrir, 2014). Assessments used an examination system and were conducted by the teacher, within the confines of a rigid, government-defined curriculum (Al alhareth & Dighrir, 2014). During the pandemic, and despite its rapid launch and adoption, the government of KSA made great efforts to establish an effective learning management platform which strove to retain various features of the existing education system in a digital form.

In relation to the evaluation of academic performance during the pandemic, the Madrasati platform facilitated electronic assessment conducted by teachers to measure students' attainment of lesson or course objectives. Students could also engage in self-assessment using question banks available in the Learning Management System and *Ain* Educational Gateway (see Section 2.7.2 for more details on Ain Educational Gateway). Final test evaluations adhered to guidelines set by the Ministry of Education, and considered factors such as completion of electronic activities, homework, and tests, attendance in virtual lessons according to the prescribed schedule, and the impact of evaluation on students' annual grades (MoE, 2020c). The assessment system thus reproduced elements of the previous approach to measuring student achievement, which

emphasised, in de la Fuente et al.'s (2017) terms, conceptual and procedural performance, while including elements of student self-assessment.

The efforts made in KSA to create an efficient system of online education which facilitated the ongoing assessment of students' academic performance reflect the priority given to secondary education by Vision 2030. The reform of the educational system was considered a vital part of the strategy to create a knowledge-based economy with less dependency on the oil industry (Allmnakrah & Evers, 2020; Mitchell & Alfuraih, 2018). Maintaining an effective education system in which students' academic achievement could be measured was thus an important element of the response to the pandemic in KSA (MoE, 2020c).

Issues related to data gathering and protection during online learning in the pandemic made it unfeasible to access formal assessments measuring students' academic achievement. The current study therefore measured academic performance through students' perceived academic achievement. Perceived academic achievement refers to students' cognitive perception of their academic performance in terms of grades and attitudes to schoolwork (Izaguirre et al., 2023; Watson et al., 2021).

Perceived academic achievement has been found to be a reliable indicator of actual academic achievement in adolescents, notably in the Longitudinal Surveys of Australian Youth or LSAY (NCVER, 2009). Other studies have shown that academic self-efficacy, reflecting a student's confidence in their ability to succeed academically, significantly influences their academic performance. Students with high academic self-efficacy tend to excel academically, viewing challenges as opportunities for growth and persisting in their efforts to achieve success (Lane et al., 2004; Lent et al., 1986; Özyeter & Kutlu, 2022).

Studies have highlighted a significant decline in academic performance during adolescence, making it crucial to pay special attention to learning and achievement during this period to address the observed decrease in academic satisfaction and performance (Izaguirre et al., 2022). Perceived

academic achievement among adolescents has also been shown to correlate with levels of life satisfaction and wellbeing (Izaguirre et al., 2022; Watson et al., 2021), supporting the inclusion of wellbeing as a factor in the present study.

2.3 Theoretical Framework

The online, at-home learning environment into which Saudi middle school students were suddenly forced into as a consequence of the COVID-19 pandemic and subsequent lockdown was radically different from the traditional face-to-face environment both teachers and students were accustomed to. To enable an understanding of the effects of that radically changed environment, the present study has drawn on three interrelated and complementary theoretical models: community of inquiry theory (CoI) (Garrison et al., 2001), social cognitive theory (SCT) (Bandura, 1986), and self-determination theory (SDT) (Deci & Ryan, 1985).

CoI (Garrison et al., 2001) helps define the three main elements of the online learning environment experienced by Saudi students during the lockdown, which based on the theory would refer to 1) *Cognitive Presence,* 2) *Social Presence, and* 3) *Teaching Presence.* Once this environment is understood, then SCT and SDT become relevant, since both examine the effects of the environment on learning, motivation, mental health, and wellbeing. In particular, SCT focuses on social influences in the environment and on external and internal social reinforcement (Bandura, 1986), while SDT examines the interplay between external motivators found in the environment and internal motivation (Motl, 2007; Ryan & Deci, 2000). Accordingly, the next section defines and discusses these theories and explains their relationship to each other and the way each, when taken together, define the theoretical framework upon which this study is based.

2.3.1 Community of Inquiry Theory

The CoI theory provides a framework for the most effective approach to computer-based distance teaching and learning (Garrison et al., 2001). The CoI theory, as it applies to online teaching and learning, emerged in the late 1990s from a project at the University of Alberta, Canada

developed by a team of researchers (Garrison et al., 2001). Earlier work by these and other scholars (Fabro & Garrison, 1998; Kaye, 1992) had begun laying the groundwork for CoI in online learning throughout the last decade of the twentieth century with the rapid advances in the use of educational technology and online learning.

However, although the CoI theory has been applied at the primary and secondary school level (e.g., Lotter et al., 2014; Sanders & Lokey-Vega, 2020), its origins are strongly rooted within a higher education setting (Garrison et al., 2001). It was specifically developed within the context of computer conferencing in higher education - a framework distinctly different from traditional distance education where students generally work independently (Garrison et al., 2001). The theory's focus is on video-conferencing in which college, university, or graduate students seek higher-order learning through group interaction and discussion. In other words, a community of inquiry can be best understood as "a group of individuals who collaboratively engage in purposeful critical discourse and reflection to construct personal meaning and confirm mutual understanding" (Garrison & Akyol, 2013, p. 105).

Clearly, the online environment implemented by KSA's Ministry of Education in response to the COVID-19 pandemic was not the learning community envisioned by CoI theory—nor was it intended to be. As Kaye (1992) has pointed out, an educational approach in which "the main learning activity is the individual reception and organisation of information from books, lectures, videos or computer-based training materials is not collaborative" (p. 2). Nevertheless, CoI is useful in the context of the current study through identification of the three elements that constitute an online learning environment, encompassing both facets of inquiry and the individual reception and organisation of information, elements which then can be further explored in light of both social cognitive theory and self-determination theory.

The first element identified by CoI theory is *social presence,* which refers to the degree of interpersonal connection and communication among students and between the teacher and the students who all play active but often asymmetrical roles. The social presence also implies mutual

collaboration, increased group cohesion, and the development of an adequate learning environment. This includes the different interrelations between teacher-students and student-student, support for the development of a sense of belonging within that community, and awareness of the goals pursued by the community (Garrison & Akyol, 2013). Regarding the social presence in such a community, Garrison and Akyol defined that presence "as the ability of participants to identify with the group or course of study, communicate purposefully in a trusting environment, and develop personal and affective relationships progressively by way of projecting their individual personalities" (p. 107).

The second element in a community of inquiry is *cognitive presence*. Cognitive presence was defined by Garrison et al. (2001) as "the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse" (Garrison et al., 2001, p.1). In other words, the cognitive presence of students is felt through their ability to construct meaning, deeply reflect, think critically, and actively participate in the learning process (Garrison & Akyol, 2013).

The third element in a community of inquiry is *teaching presence*. Teaching presence was defined as "the design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes" (Anderson et al., 2001, p.5). Moreover, teaching presence warrants properly integrating the social and cognitive presences during the learning process (Garrison & Akyol, 2013). As teaching presence refers to the design and facilitation of learning activities by the teachers (Kreijns et al., 2022; Sadaf et al., 2021; Van Wart et al., 2020), the responsibilities of the person facilitating both learning and critical thinking are significant. Indeed, the teacher is responsible for the lesson design and motivation of the students. Hence, the instructor's ability to design and maintain the attention and engagement of students and diagnose and assess their learning outcomes (Garrison & Akyol, 2013, p. 111) is a crucial factor in ensuring the students' acquisition of valuable knowledge.

In this study, the level of social and cognitive presence among students during the pandemic lockdown was considered an important factor in the students' perceived academic achievement. The lockdown forced many students to shift to online learning, which may have affected their level of

engagement, interaction, and participation in the learning process. Students with more opportunities to interact with their classmates and engage with the learning materials may have had a higher perceived academic achievement.

During the COVID-19 lockdown in KSA, all three of these elements were present in online learning approaches, although in substantially diminished form. Social presence was reduced by the limited online interactions students had with each other, although attempts were made by most students to maintain contact with their peers through texting and social media. The primary source of social presence, however, came not from peers in the online community, but from family in the home environment and, to the extent that parents and older siblings became involved in a student's actual learning, the social interaction, communication, and support envisioned by CoI was operational, however faintly.

Cognitive presence was manifested of course in the content of online lessons, although the "sustained reflection and discourse" (Garrison et al., 2001, p.1) characteristic of a genuine community of inquiry was severely limited because the primary intent of the Madrasati learning platform was information transfer, not collaboration. Finally, teaching presence was certainly a factor during the lockdown but was primarily limited to the design and delivery of content rather than the facilitation of group inquiry, delivery of which was further hampered by the difficulties teachers faced with the learning platform itself.

2.3.2 Social Cognitive Theory

The three elements of a learning community as defined by CoI—social presence, cognitive presence, and teacher presence—describe the learning environment in which Saudi middle school students suddenly found themselves during the COVID-19 pandemic and lockdown. Social Cognitive Theory (SCT; Bandura, 1986) was also used as part of the theoretical framework and facilitated the current study's understanding of the consequences of that environment. Social cognitive theory posits that learning is affected by social contexts and has a reciprocal relationship with the environment. The theory bridges social and cognitive learning theories by including

interactions between external (social) influences, such as vicarious observation, imitation, and modelling, and internal (cognitive) elements, such as motivation, attention, and memory. Bandura (1977) suggested that learning is affected by observable consequences and rewards, reinforcing desired learner behaviours (Bandura, 1977). These consequences and rewards as manifested in traditional teacher-led classrooms are then reinforced by the social behaviours of the learner's classmates. Thus, according to Bandura (1986), learning occurs through observation, direct experiences, and the imitation and modelling of others, including teachers and classmates.

However, in the context of the COVID-19 pandemic, the traditional source of experience and modelling as defined by SCT changed dramatically. Saudi middle school students were suddenly forced to study in isolation at home, rather than in the much more social environment of a classroom. Unfortunately, in this situation all internal cognitive elements for at least some students may have been affected by anxiety and depression (Burt et al., 1995; Elmelid et al., 2015; Kalueff, 2007; Najmi et al., 2012).

From these observations, a hypothesis was formulated for the study: The switch to remote learning and the consequent reduction in social interaction opportunities might have negatively impacted Saudi students' wellbeing. This impact may potentially have lowered their internal motivation and attention to learning tasks, which could have negatively affected their academic performance.

Prior research has suggested that dramatic changes to the learning environment, such as changes following a traumatic event, emergency, or natural disaster, are associated with adverse impacts on student wellbeing (Emerson et al., 2021), depression (Elmer & Stadtfeld, 2020), and anxiety (Mayo Clinic, 2021). Therefore, based on Bandura's SCT theory, it is possible that changes to the learning environment during the COVID-19 pandemic might have impacted students' wellbeing and mental health, which in turn could affect their academic achievement.

As part of the framework for this study, SCT was used to explain the association between wellbeing, depression, anxiety, and academic achievement. Accordingly, the research hypothesis

was that middle school students' academic performance was negatively affected due to the prolonged change in their learning environment during the COVID-19 lockdown.

In the shift to remote learning in KSA, although some students may not have experienced reduced social interaction with their peers and teachers in the course of an average school day, a lack of social interaction opportunities might have caused others to experience anxiety, loneliness, and depression, which could have influenced their mental health (Goodman et al., 2015). These emotional and psychological effects could have caused many Saudi students to lose the motivation to concentrate on their studies in the untested home education system in which they were embedded. Since Bandura's (1986) theory maintains that learning is in reciprocal interaction with the environment and occurs in a social context, social isolation in the KSA situation could have directly impacted academic performance.

2.3.3 Self-Determination Theory

The central issue in Self-Determination Theory (SDT; Deci & Ryan, 1985) is motivation and the factors that can either enhance or inhibit an individual's drive, ambition, and determination. People can of course be motivated by such external factors as rewards and punishments or by internal factors such as interests, passions, enthusiasms, or values. The theory further posits the existence of three fundamental psychological needs—the need for autonomy, the need for competence, and the need for relatedness—and explores how social and cultural factors support or hinder people's sense of volition and initiative (Ryan & Deci, 2000). In other words, although people can be motivated by an external system of rewards and punishments, when the needs for autonomy, competence, and relatedness are met, people thrive and exhibit their highest quality of motivation (Deci & Ryan, 1985).

The conditions of the COVID-19 lockdown presented a challenge for the students in this study in meeting all three of SDT's basic psychological needs. They were suddenly dependent on an online learning system with which they were neither familiar nor initially competent to manage, while their need for relatedness was severely hampered by being isolated from their peers. Yet over

time, it was possible that students began to gain control over their actions (autonomy), began to feel effective in their learning (competence), and became more and more connected to family members (relatedness), and were therefore increasingly likely to perceive their academic achievement as satisfactory, despite the challenging circumstances of the pandemic lockdown. The "social and cultural factors"—family and religion—could provide a means through which students could meet their three basic needs for autonomy, competence, and relatedness.

The theoretical framework for this study was therefore established through an integration of community of inquiry theory, social cognitive theory, and self-determination theory acting in a complementary manner. From CoI this study identified the three elements of any learning environment, online or traditional: social presence, cognitive presence, and teacher presence. From SCT this study showed the powerful and potentially negative effect the dramatically changed environment of the lockdown might have had on student perception of academic achievement. From SDT this study demonstrated how the social and cultural resources of family and culture could allow students to meet their three basic psychological needs and thus persevere under the difficult conditions of the pandemic lockdown.

In light of these theories, a review of the literature helped to shape the hypotheses of this study and develop a conceptual model of KSA students' perceived academic achievement during the lockdown (shown in Figure 2.1).

2.4 Factors Associated with Academic Achievement

According to social psychologists, humans are social beings and require human interaction to promote health and development (Baumeister & Bushman, 2020). In relation to this Adolphs (2009), pointed out that social cognition is an important element of social interactions because our ability to read other people's "intentions, feelings, and thoughts" (p. 1) impacts how we make sense of our interactions. For example, children with a more highly developed sense of social cognition accept delayed gratification for rewards and can regulate their emotions at a more sophisticated

level (Adolphs, 2009, p. 5). Telhaj (2018) stated that social interaction significantly affects students' academic achievement. For example, the classroom environment enhances academic achievement through peer association and collaboration, as when students teach each other and work together for improvement. At the same time, competition or social influence among classmates can motivate the learner to work harder (Telhaj, 2018). Further, as described by Bandura's (1977) model of self-efficacy, social interaction is necessary for modelling behaviours to emerge. Specifically, both personal and vicarious experiences rely on modelling as a way to build self-efficacy.

Furthermore, classroom activities are important for more than just the role they play academically; these activities help students acquire social skills that are essential to their future personal and professional growth (Garrote, 2020), and students' interactions with teachers and other students contribute to children's socio-emotional development, wellbeing, and academic achievement (Umberson & Montez, 2010). However, during the COVID-19 lockdown and closure of schools, students' social interactions decreased significantly, suggesting that the positive associations found with face-to-face learning were lost (Burgess & Sievertsen, 2020).

Educators and psychologists have theorised that such a sudden interruption in social interactions could disrupt critical learning environments, potentially impacting students' academic achievement and socio-emotional development (Baumeister & Bushman, 2020). Before the pandemic, many studies consistently showed that less time spent studying could lead to learning loss and lower academic achievement (Aucejo & Romano, 2016; Carlsson et al., 2015).

Other negative outcomes were expected with the COVID-19 lockdown. In addition to negatively affecting academic achievement, acquisition of social skills, and socio-emotional development, reduced social interaction might have significantly and negatively affect mental health and wellbeing. This suggestion was indicated by research undertaken early in the pandemic. In a rapid review undertaken in February 2020, Brooks et al. (2020) used research from previous pandemics to indicate the likelihood of psychological problems among both adults and children as a

consequence of COVID-19 lockdowns. This suggestion was confirmed by later studies such as that of Pandey et al. (2020), who found high levels of depression and anxiety among adults who had experienced mandatory lockdown in India. Elmer et al. (2020) assessed the mental health and social connections of Swiss undergraduates in April 2020 and compared the results with a cohort measured before the pandemic, finding lower levels of social interaction and higher levels of mental health problems experienced during the crisis.

Considering children in China in March 2020, when many children had already been quarantined due to contact with the virus, Liu, Bao, et al. (2020) warned of the likelihood of psychological problems due to isolation and the need for support for children's mental health and wellbeing. These early studies suggested the potential impact on children of the COVID-19 pandemic, when students had to adjust to dramatic changes in their education, routine, and home life (Bergdahl & Nouri, 2020). These changed circumstances for students could have correspondingly resulted in psychosocial problems, increased stress levels, and effects on their levels of depression, anxiety, and wellbeing, which in turn could negatively impact students' academic performance through recognised pathways connecting poor mental health and academic achievement (Deighton et al., 2018; Murphy et al., 2015) and the role of wellbeing in supporting academic performance (Sznitman et al., 2011).

In the context of school, "student wellbeing is important because it ignites students' capacity to flourish and reach academic triumphs and personal goals" (Slee & Skrzypiec, 2016, p. 24). Slee and Skrzypiec (2016) highlighted that students' wellbeing is an important component of their ability to function well, not only at school but also in all life domains. Moreover, "social contextual factors (school-related social support) and self-system factors (e.g., scholastic competence and social acceptance) are crucial for adolescents' optimal subjective well-being in school" (Tian et al., 2015, p. 138).

A study of the psychological response of the Saudi population to the COVID-19 crisis undertaken at the time of the pandemic showed that a significant proportion were seriously affected by the restrictions on their lives, the perceived threats to their health, and the impact on religious practice (Joseph et al., 2020). These authors found that of the nearly 600 Saudis medically surveyed in their study, 64.8% met the clinical concern level for post-traumatic stress disorder (PTSD) and 51.3% were diagnosed with probable PTSD as a result of their exposure to the COVID-19 threat. The prevalence of distress symptoms seen by these researchers suggested a concerning pandemic-related mental health illness trend needing urgent action. Consequently, the disruption of religious practices, social gatherings, and other fundamental aspects of Arab society caused by COVID-19 should be understood as a major factor affecting people's health and wellbeing, including children (Joseph et al., 2020). This study therefore expected to find low levels of wellbeing and significant levels of mental health problems among the participating students, and that these factors would correlate with lower perceived academic achievement.

Little previous research has considered the relationship between the amount of schoolwork undertaken by students and their perceived academic achievement. Considering homework, undertaken out of classroom time, Trautwein and Köller (2003) noted a lack of clear understanding of the relationship between homework and academic performance, while Trautwein (2007) reported that although homework frequency and effort were related to achievement, time spent on homework was not. A study in China found a lack of correlation between schoolwork burden and academic achievement, and even a potential negative impact of a heavy schoolwork burden on test results (Linchun & Lujian, 2008). The shift to online learning caused by the pandemic changed the relationship between schoolwork undertaken in class and homework assignments (Motz et al., 2021), with unknown consequences, although a study of high school students early in the pandemic found that most reported spending less time on learning and that they learned less (Yates et al., 2020).

In this study, it was hypothesised that the amount of schoolwork before the lockdown may have indicated a social and cognitive presence, reflected a level of engagement with the learning materials and classmates, and been a function of a level of participation in the learning process. These aspects may have changed during online learning during the pandemic. Therefore, it was considered important to assess whether students considered that the amount of schoolwork had changed, and whether this potential change affected their perceived academic performance.

2.5 Mental Health, Wellbeing, and Academic Achievement During COVID-19 Lockdown

Prior to the pandemic a large body of studies around the world had demonstrated a significant correlation between levels of depression and anxiety and academic performance among adolescents and young people (Burnett-Zeigler et al., 2012; Murphy et al., 2015). For example, a study by Burnett-Zeigler et al. (2012) consisting of 1,076 adolescents aged 12–18 years old explored the correlation between mental health problems and the treatment of disorders Overall, 14% of adolescents in this sample were found to have mental health problems, including anxiety, depression, and/or suicidal ideation. One of the major findings of that study was that those individuals identified as having mental health problems also had poorer grades at school, which supported the hypothesis of this thesis that there is a connection between mental health, wellbeing, and academic performance.

Murphy et al. (2015) explored the effect of mental health on academic outcomes in elementary students in Chile and found a statistically significant association between the two. This longitudinal study tracked the mental health status and academic performance of students from first grade (typically ages 6–7) and third grade (typically ages 8–9). Using two screening instruments, mental health status was tracked via an assessment survey administered in both first and third grade. Mental health was found to be a significant predictor of academic performance. Further, Murphy et al. (2015) found that when mental health improved, so did academic performance, thus providing empirical evidence for the association between mental health and academic performance.

Schulte-Körne (2016) examined how poor mental health impacted the academic performance of German children in eighth and ninth grades due to repeated negative feelings, differences in cognitive abilities, and low academic motivation. A notable result was that students with mental health problems (e.g., depression, anxiety disorders, and hyperkinetic disorder) but high levels of motivation experienced the highest decrease in grades during their transition from middle school to high school. Furthermore, Eisenberg et al. (2009) found that depression in college students was a major indicator of lower grades and resulted in a higher likelihood of leaving school. Joe et al. (2009b) obtained similar results among American students in Grade 12, with Evans et al. (2018) showing that high school students with depression had substantially lower grade point averages than their classmates without depression. The research has thus empirically demonstrated that mental health is associated with poor academic achievement across all grades, ranging from Grade 1 to college.

Globally, the outbreak of COVID-19 caused significant psychosocial and mental health problems including depression, anxiety, obsessive behaviours, paranoia, post-traumatic stress disorder, hoarding, and acute panic among both children and adults subjected to the real and perceived threat of the virus (Dubey et al., 2020). Research focussing on people in quarantine during the COVID-19 pandemic, published at the beginning of the present study, found that being in quarantine was associated with negative mental health outcomes in both adults (Brooks et al., 2020; Elmer et al., 2020; Pandey et al., 2020) and children (de Figueiredo et al., 2021; Kilincel et al., 2021). Given the immediate and significant effects of the pandemic on mental health across a wide range of population groups, including children, and the established relationship between poor mental health and lower academic achievement, this study expected to find a negative effect on the perceived academic achievement of its cohort correlated with problems with mental health.

2.6 The Adverse Influence of Disasters on Children and Learning

Disasters, both natural and human, constitute “a significant and growing threat to the wellbeing of children,” and children “under the age of 18 years are a particularly vulnerable

population" (Lai & La Greca, 2020, paras. 1–3). During the COVID-19 crisis, not only were children faced with an imminent life-threatening disease but normal family, social, school and other structures were also totally disrupted. Therefore, in understanding the way children's mental health was affected during the unexpected life changes caused by the global pandemic and widespread lockdowns, it was useful to review how other types of crisis events had triggered profound emotional responses (Berger et al., 2018). According to several authors (e.g., Cahill et al., 2013; Cahill et al., 2020a; Di Pietro et al., 2020), severe accidents and natural disasters such as fires, floods, earthquakes, or cyclones could be devastating and overwhelming for children and young people and have a major mental health impact.

Trauma could reasonably be assumed to affect children and adults differently, particularly because children are more emotionally vulnerable than adults to adverse effects following exposure to trauma (Le Broque et al., 2017). Le Brocque et al. (2017) asserted that children and young people (aged 18 years and under) are more vulnerable to the effects of disaster-related trauma than adults. This finding could be because children and young people have less developed coping mechanisms (Diehl et al., 1996), rely on others for social support more than do adults (Po Sen et al., 2010), and are at a developmentally sensitive period in their lives (Blakemore & Mills, 2014). Moreover, research indicates that the duration of such events significantly influences their harmful impact, with longer-lasting events exacerbating the mental health effects (Le Brocque et al., 2017). In the context of the COVID-19 lockdown in KSA, which lasted for approximately two years, there might be potential for increased adverse mental health consequences due to the prolonged duration of impacts.

Additionally, the post-traumatic effects of an ordeal can be at least as damaging as the original event (Kolaitis, 2017). According to Cahill et al. (2013), in the immediate aftermath of a disaster, it is common for children and young people to experience and display signs of distress. Cahill et al. (2020a) reported that common responses of children and young people to disasters include heightened distress well after the danger has gone, sleeping and learning difficulties, issues

with behavioural and emotional control, challenges in handling anger and conflict, anxieties about the consequences on their own and their family's future, and difficulties in getting along with others. In general, about one in four young people directly exposed to a catastrophe still have post-traumatic symptoms three months after the incident (Le Brocque et al., 2017). In the context of a catastrophe, Cahill et al. (2020a) pointed out that post-traumatic symptoms can include: (a) increased peer conflict or issues within social relations; (b) behavioural changes (withdrawal, "acting out," or aggression); (c) preoccupation with the re-enactment of traumatic incidents in plays and stories; (d) difficulty focusing on learning; and (e) safety anxieties even though risks are no longer apparent. These effects can negatively impact student relationships, academic achievement, and physical or mental health.

Disruption to learning may occur when school buildings are destroyed, teachers become inaccessible or are concerned about the effect of disasters on their own lives, or when children need to be moved due to school closures (Cahill et al., 2020b). Students may find it difficult to participate in learning activities and focus on demanding tasks when coping with emotional impacts.

The increased behavioural problems that can follow a catastrophe may also influence learning (Le Brocque et al., 2017). For example, in the 18 months following the 2011 Christchurch, New Zealand earthquake, instructors reported that student behavioural issues more than doubled (Liberty et al., 2016b). In another study examining the effects of the 2014 Hazelwood Mine fire in Victoria, Canada, teachers indicated that students' academic achievement had been affected by diminished commitment, problems of inattention, heightened anxiety, increased peer tension, and increased family violence and instability (Berger et al., 2018).

While longitudinal studies on the effects of trauma have been limited, a 20-year follow-up study of Australian bushfire victims explored the impact of the disaster on children and showed that they were less likely than the comparison group to continue their education and careers (Van Hooff, 2010). Long-term impacts on achievement have also been observed; for example, a study by Gibbs et al. (2019) followed the academic progress of students in Australia who were exposed to the

trauma of a major bushfire. Their study showed that the size and severity of the disaster event, and therefore the extent of the impact on students, determined how long they were affected, and that student literacy and numeracy were adversely affected in the years following the disaster. They also found that the impact on primary school students' academic achievement was greater in learning domains requiring the highest degree of focus, such as math and reading. The scale and impact of the COVID-19 pandemic represented a major disruption in the lives of this study's target group, as it did for populations around the world. This study therefore expected to find significant levels of mental health problems among the participating students.

2.7 The COVID-19 Lockdown and its Impact on Learning

An obvious concern during the pandemic and subsequent lockdown was the effect the radically changed conditions would have on student learning. This concern was particularly salient because of social distancing, the sudden cessation of normal classroom education, and the lack of normal peer interactions (Bergdahl & Nouri, 2020; Di Pietro et al., 2020).

Considering the impact of the COVID-19 pandemic, it is plausible to assume that students who experienced this disaster scenario may also experience apprehensions about the financial stability of their families and their levels of academic achievement, which is what would be expected from pre-pandemic research (Stallman, 2008; Stewart-Brown et al., 2000). However, Gibbs et al. (2013) had found that students' ability to handle emotional stress after exposure to disasters such as earthquakes, floods, and famine was an important factor in preventing academic delay and dropout. This study expected to find levels of distress among students related to the sudden switch to online learning in the wider context of the pandemic and associated disruptions, and generally negative perceptions of distance learning. It was expected that these problems would lead to negative perceptions of their academic achievement.

2.7.1 Changes of Modality in the Learning Process During COVID-19 Lockdown

Lack of proper preparation for the sudden transition from a traditional classroom to remote online learning during the pandemic was recognised as problematic for both educators and learners (Bergdahl & Nouri, 2020; Hodges et al., 2020). Bergdahl and Nouri (2020) showed that although Swedish schools were prepared for the technical aspects of transition, pedagogical strategies had not been developed. These authors found that teachers had not written comprehensive lessons to deliver the curriculum effectively online, had not prepared methods for assessing online student work and participation, and had not established formal methods of providing feedback to students. As a result, the rapid and forced transition from a traditional classroom environment to remote learning resulted in serious challenges for both students and teachers (Di Pietro et al., 2020; Hodges et al., 2020). For instance, Di Pietro et al. (2020) found that students attempting to learn remotely during the COVID-19 lockdown tended to spend significantly less time on academic work and experienced difficulty in focusing on their studies.

Evidence supports a view that any type of rapid change in the learning environment, like the closure of schools in a crisis, disrupts learning (Andrew et al., 2020). For instance, Baytiyeh (2018) showed how natural disasters often forced individuals to rely on online learning, disrupted face-to-face teaching, and diminished access to school. Thus, given the evidence from studies on the impacts of crises on educational outcomes, investigating the current circumstances of students from KSA during the COVID-19 lockdown to determine how they had been affected was of pressing importance. It was expected that the sudden shift to online learning necessitated by the circumstances of the pandemic, which prevented any sustained planning of new pedagogical approaches, would have a negative effect on the students' perceptions of their academic performance.

2.7.2 Internet Connection and Online Education During Lockdown

Although KSA had seen relatively rapid development in the distribution of communication infrastructure and services in the past, the nation had been a latecomer to the rollout of digital

technologies and the internet (Al-Hajery, 2004; Alshahrani, 2016). Nevertheless, according to Saquib (2020), due to a ten-fold increase in internet coverage in the previous decade, over 90% of KSA's population had internet connection during 2020, with the majority of adolescents having access to personal electronic devices. Nevertheless, there remained a significant disparity in access between rural and urban areas, with one 2019 case study finding that only 53% of all homes had a computer (UNESCO, 2020). This apparent contradiction can be explained by the prevalence of mobile Smartphone ownership as the preferred technology device for online social communication and entertainment in KSA, whereas laptop or desktop computers, such as would be needed by a student studying remotely from home, were much less common (Aldhaban et al., 2020).

Although landline and WiFi connections were commonly used in the regions of Taif and Mecca, broadband speeds and the range of available devices for internet access varied. Studies had found that slow internet connections were common in urban areas, while rural areas faced significant challenges in internet connectivity and infrastructure development (Alanezi et al., 2012; Alkraiji, 2020). In particular, slow internet connections in some urban areas of Taif and Mecca have been attributed to factors such as outdated infrastructure, limited competition among internet service providers, and high demand for internet services in these areas (Alkalash et al., 2023).

To compensate for the lack of or disparity in availability of internet for education purposes, during the pandemic, the KSA Ministry of Education moved to shift public school education to its distance learning television portals by redirecting the "Eye Gate" *Ain* educational channel and the corresponding *YouTube* channel to provide live home tutoring for all school subject levels, with lessons daily from 8:30 a.m. to 12 p.m. on weekdays (Hoq, 2020; Smith, 2020; World Bank, 2020). Through the options provided by the Ministry of Education for distance education, the *Ain* educational platform allowed students to continue their studies at a time that suited them, aiming to reduce any educational losses and ensure progress of the educational process by minimising the interruption caused by normal classroom teaching during the pandemic restrictions (Hoq, 2020). The students who were to participate in this study had therefore experienced an extreme change in

the medium of instruction and had to quickly adopt the technical solutions offered by the Ministry of Education. It was expected that students would find this change difficult, and that many would experience problems with technical issues including internet connectivity.

2.8 Relationship of Demographic Background on Academic Achievement

Socioeconomic status factors, including parental education and household income, as well as demographic factors, such as gender, age, and number of siblings, have been found by previous research to play a crucial role in middle school students' perceptions of academic achievement (e.g., Haveman & Wolfe, 1995; Sirin et al., 2005; Nyama, 2011; Liu et al., 2022). These studies concurred that a higher level of parental education and greater household income provided better opportunities and resources. Resources included the amount of time available to support a student's learning process and the capacity of parents to understand and explain educational content to their children (Kalil et al., 2012), which led to improved academic achievement.

Lower socioeconomic status is commonly related to lower academic achievement. As reported by Erdem and Kaya (2021), "It is well documented in the literature that SES is a notable predictor of academic achievement, and the results of the current study lend support to these claims" (p. 14). In the United States, Chen and Weikart (2008) also concluded that the "poverty and minority status of student populations predict school disorders" (p. 3), with lower levels of SES being positively associated with lower academic achievement. Supportive of this view, Suna et al. (2020) demonstrated that students whose SES was significantly higher than average achieved higher academic scores in language, math, and science assessments. In the UK, Caro et al. (2009) reported findings regarding variations in socioeconomic status (SES) and academic achievement and found that as student age increased, the disparity in SES and academic achievement remained relatively constant from age 7 to 11 years but escalated significantly from age 11 to 15 years.

Broer et al. (2019) reviewed the literature on the relationship between socioeconomic status and educational achievement, specifically in light of the Trends in International Mathematics and Science Study (TIMSS), an international assessment of math and science knowledge among fourth

and eighth-grade students. The study analysed 319 articles published between 1995 and 2015 and found that SES was a strong predictor of educational achievement, with students from higher SES backgrounds performing better on the TIMSS assessments than students from lower backgrounds. However, the relationship between SES and educational achievement was complex and multifaceted and was influenced by factors such as parental involvement, school resources, teacher quality, and cultural background. Broer et al. also noted that the relationship between SES and educational achievement could vary across different countries and educational systems. Therefore, a crucial aspect of this study was considering SES in relation to educational achievement, as multifaceted factors including access to resources, cultural context, and levels of parental involvement had been shown to affect the impact of SES on academic achievement.

Although the above studies described the relationship between SES and academic achievement under normal school conditions, under the unusual conditions of a COVID pandemic and lockdown, these relationships presented a completely new panorama. During the lockdown, students were compelled to spend almost all their time at home with their families. Factors such as level of parental education, parental involvement in their children's education, access to resources, and level of financial security were thus predicted to heighten the impact of SES on academic performance.

This study considered socioeconomic status (SES) as a factor that may have affected the perceived academic achievement of the student participants, expecting to find that there would be a positive correlation between higher SES and academic performance.

2.8.1 Parents' Education and Academic Achievement

Parents' education is considered an important factor in child development and academic achievement (Haveman & Wolfe, 1995; Idris et al., 2020; Nyama, 2011). Lawson and Farah (2017) and Li and Qiu (2018) have shown that parent's level of education is positively associated with their child's cognitive development and academic achievement. This is generally due to higher parental education correlating with an intellectually stimulating home environment, often including

educational activities, availability of books, and access to technology. Additionally, parents with higher education tend to have the knowledge and skills to support their children's learning and academic success. Lower levels of parental education and household income have been found to negatively impact on academic achievement due to lower educational standards among parents, fewer resources and diminished educational opportunities (Chung, 2015; Ferguson et al., 2007).

Mother's and father's education levels are commonly used as indicators of socioeconomic status as they are related to access to economic resources, social networks, and opportunities for upward mobility (Haveman & Wolfe, 1995; Idris et al., 2020; Nyama, 2011). Higher education is associated with higher income, better job opportunities, and access to resources that can impact students' academic achievement, such as a parent's ability to assist with homework or be a positive role model. Finally, parents with higher levels of education may have relatively progressive parenting styles, which can influence children's development and academic achievement (Lareau, 2011). For example, parents with higher levels of education may be more likely to use authoritative parenting styles, which, because of the warmth, support, reasoning, and positive reinforcement characteristic of that style, are associated with higher levels of academic achievement in children (Baumrind, 1991). However, it is important to note that parents' education level alone does not necessarily causally impact academic achievement. It has been suggested that the provision and effective utilisation of resources, such as educational materials, technology, extracurricular opportunities, and access to tutoring, promote academic success (Li & Qiu, 2018). The influence of parental education on children's development and academic achievement can thus be both direct and indirect (Li & Qiu, 2018).

Findings regarding how much a father's or a mother's educational level impacts their children's academic achievements are inconclusive. Some studies have found that the educational level of the mother was a stronger predictor of a child's academic achievement than the father's (Abuya et al., 2015; Hanafi, 2008). This may be because mothers are typically the primary caregivers and tend to spend more time with their children, providing them with more direct support

and guidance. For instance, Nyama (2011) noted that in the majority of families, mothers are the first teachers of children and the first reviewers and supervisors of homework and the learning process. Additionally, mothers tend to be more involved in children's education, including attending parent-teacher conferences, volunteering at school, and helping with homework. Other studies have shown that mothers with low educational levels were less interested in their children's education, which can affect their educational future and achievements (Hanafi, 2008). A study by Soharwardi et al. (2020) agreed that the mother's education level had a greater effect on their children's academic performance than the father's.

Other studies have found that the educational level of the father was more strongly associated with children's academic achievement than the mother's (Schurer & Roos, 2018). For example, a study by Alabdulkarem et al. (2021) conducted in KSA found that the father's education was a stronger predictor of academic performance in university students. Various reasons why the father's education level may be a more powerful predictor of perceived academic achievement than income are possible. Previous research has shown a positive association between the strength of a child's relationships with their fathers and academic achievement (Chung et al., 2020; Marissa & Ishaaq, 2012), the beneficial effects of fathers' involvement in their children's education (McBride et al., 2005), and the possibility that the influence of the father may mitigate other factors affecting academic performance among adolescents (Gordon, 2016). Moreover, cultural factors and gender roles may also contribute to this association. In certain traditional cultures, such as KSA, the father may be perceived as the primary provider and decision-maker, thereby increasing the impact of his education level on the family's socioeconomic status and children's academic outcomes (Al-Khraif et al., 2020).

2.8.2 Household Income and Academic Achievement

Household income has been widely recognised as an important indicator of socioeconomic status, with Darin-Mattsson et al. (2017) concluding that it strongly contributed to SES, while others have found that SES was solely dependent on household income (Saif-Ur-Rahman et al.,

2018). However, Antipova (2020) viewed income and education as separate factors contributing to SES and insisted they must be understood as two different, independent factors that cannot be interchangeable. She found that household income served as a proxy measure for the type of school and resources a family could afford. Household income was a valid indicator of SES because it directly related to accessing economic resources and opportunities, including the basic needs of food, shelter, healthcare, and other resources that improve overall wellbeing.

Most significant for the current study, however, was that household income was also the key to determining access to quality education, including digital devices suitable for online leaning, which had a direct impact on academic achievement and SES. Thus, it can be concluded that both household income and access to quality education may positively influence students' learning processes and enhance their ability to achieve positive academic outcomes in remote learning situations.

Many families in KSA experienced a sharp drop in household income due to job losses or reduced working hours because of the lockdown, which significantly impacted household functioning (Al Gahtani et al., 2020). This, in turn, contributed to feelings of insecurity and financial worry in many homes (Al Gahtani et al., 2020). In such challenging circumstances, students might spend less time studying, with heightened potential for psychosocial problems, domestic violence, bullying, and child abuse (Campbell, 2020; United Nations, 2020).

Carlsson et al. (2015), suggested that spending less time in learning can lead to low academic achievement. Further, lower-income households have been shown to suffer from digital inequality in relation to accessing online educational resources (Harris et al., 2017; Katz, 2017; Levine et al., 2016; Zhang, 2015). Supporting the expectation that the pandemic might exacerbate this digital inequality (Goudeau et al., 2021), post-pandemic research has shown that families with higher incomes showed more readiness and acceptance towards eLearning (Khasawneh, 2023).

As with other countries, the home environment of students in KSA was critical to the learning and academic achievement of Saudi students. As discussed, the home environment

includes factors related to SES in terms of educational expectations and access to resources, in particular digital and technological resources. Further, other social and cultural factors may have been significant; a systematic search across 18 studies involving 5,831 school-aged students in eight countries over 19 years has shown that intellectual stimulation in the home, as well as the sociopsychological environment, are more closely linked to ability and achievement than parental SES (Iverson & Walberg, 2015).

In Saudi Arabia, cultural factors, including the home environment, have been identified as influential in students' engagement with and learning of science (Alghamdi & Malekan, 2020), and more broadly in terms of educational achievement and expectations (Almalki & Ganong, 2018). Consequently, it was essential to examine the unique circumstances children faced during lockdown in terms of their academic achievement.

2.8.3 Gender

Cultural expectations regarding gender roles and responsibilities have been shown to influence the amount of time and resources that female students have available for studying in comparison to their male counterparts (e.g. Alomair, 2015; Nasseef, 2015). Song (2019) pointed out that this may be due to factors such as social and cultural norms that prioritise domestic and familial responsibilities of females over academic pursuits. These cultural factors suggest that during the period of lockdown, female students in KSA might have faced more challenges in focusing on their education than their male peers.

However, other research has suggested that girls may have adjusted more easily to the shift to online education than boys. Although the results of previous research on gender differences in ability to adjust to new circumstances have been complex, Akhtar & Alam (2016), among secondary school students in India have shown that girls adjust more readily than boys, particularly in relation to academic performance. Girls have also been shown to access more sources of social support, aiding their ability to adjust (Rueger et al., 2008).

Further, self-regulated learning behaviours have been found to play an important role in outcomes in online learning (Cho & Shen, 2013; Wang et al., 2013), and externalised behaviours related to mental health difficulties have been found to negatively affect academic performance during adolescence (Deighton et al., 2018; McLeod et al., 2012). Deighton et al. (2017) also found that boys were more likely to exhibit externalising behaviours. As boys are also more likely to have difficulties in self-regulation (Cho & Shen, 2013; Wang et al., 2013), it was considered possible that boys would face more difficulties in the shift to online learning than girls, with consequent negative effects on their academic performance.

As the factors influencing the relationship between gender and academic performance are complex, and their effects during the pandemic in relation to education in KSA were unknown, this study considered gender to be an important element for investigation when exploring the perceived academic performance of students in the lockdown.

2.8.4 Number of Siblings

The number of siblings a student has in a given household could potentially influence their academic performance, particularly during the COVID-19 pandemic lockdown. This is because in households with more siblings, distractions and noise might increase, possibly impacting a student's concentration. Such situations can lead to limited access to resources, such as shared computer devices, quiet study spaces, or personalised parental attention (Downey & Condron, 2004), which might negatively impact students' academic achievement. Previous scholarship has suggested that resource dilution might have both direct and indirect influence on academic achievement (Gibbs et al., 2016; Steelman et al., 2003). Öberg (2017) suggested that having more siblings might limit a student's access to essential resources, such as technology or private study spaces, potentially leading to lower academic outcomes.

Conversely, more siblings could mean more opportunities for peer support and learning during the lockdown. Siblings can assist each other with studies and provide emotional support

during challenging times. Furthermore, within larger families, more diverse perspectives and experiences might enhance the children's knowledge and understanding, leading to better academic outcomes (Downey & Condron, 2004).

However, the specifics of how the presence of siblings impacts academic performance may vary greatly, depending on cultural, familial, and individual factors (Öberg, 2017). The role of siblings and their potential influence on academic achievement during the COVID-19 pandemic lockdown therefore warranted careful consideration in this study.

2.9 Conceptual Model for Study

Based on the findings from previous research and the three theoretical frameworks on which this study is based, a conceptual model to depict the relationships between wellbeing, mental health (depression and anxiety), demographic background, socioeconomic status, schoolwork, and perceived academic achievement, was developed (see Figure 2.1). This model was then used to derive the research questions and related hypotheses.

2.9.1 Study Research Questions and Hypotheses

Primarily, this study sought to determine how wellbeing, mental health (depression and anxiety), demographic background, and the amount of schoolwork were associated with perceived academic achievement for middle school students during the COVID-19 pandemic lockdown in KSA.

The research questions comprised the following:

1. Is there an association between wellbeing and perceived academic achievement in middle school Saudi students? It was hypothesised (H1) that there is a statistically significant association between students' wellbeing and perceived academic achievement.
2. Is there an association between mental health (depression and anxiety) and perceived academic achievement in middle school Saudi students? It was hypothesised (H2) that there

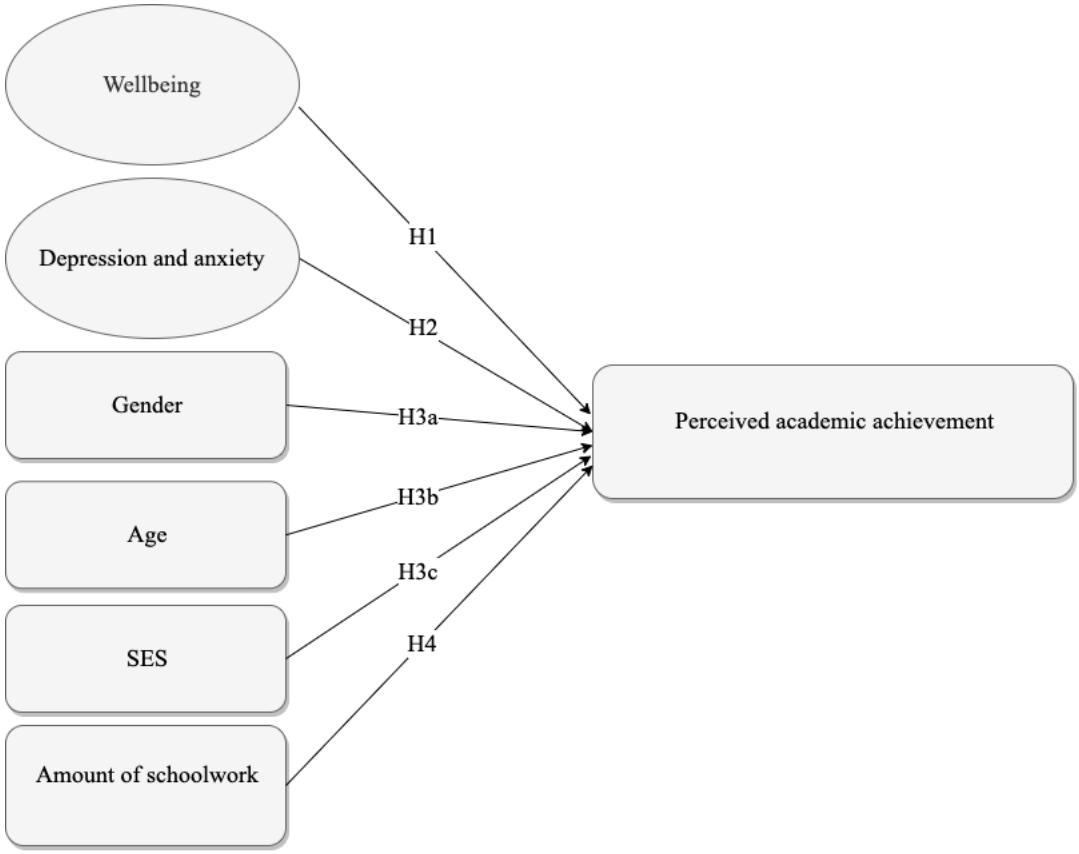
is a statistically significant association between students' mental health and perceived academic achievement.

3. Is there an association between demographic background and perceived academic achievement in middle school Saudi students?
    a. Is there an association between gender and perceived academic achievement in middle school Saudi students? It was hypothesised (H3a) that there is a statistically significant association between students' gender and perceived academic achievement.
    b. Is there an association between age and perceived academic achievement in middle school Saudi students? It was hypothesised (H3b) that there is a statistically significant association between students' age and perceived academic achievement.
    c. Is there an association between SES (mother's education, father's education, household income) and perceived academic achievement in middle school Saudi students? It was hypothesised (H3c) that there is a statistically significant association between students' SES and perceived academic achievement.
4. Is there an association between the amount of schoolwork done during lockdown and perceived academic achievement in middle school Saudi students? It was hypothesised (H4) that there is a statistically significant association between students' amount of schoolwork and perceived academic achievement.

The study method was thus developed to gather data to address the research questions and hypotheses.

Figure 2.1

Conceptual Model Showing predictors of Perceived Academic Achievement



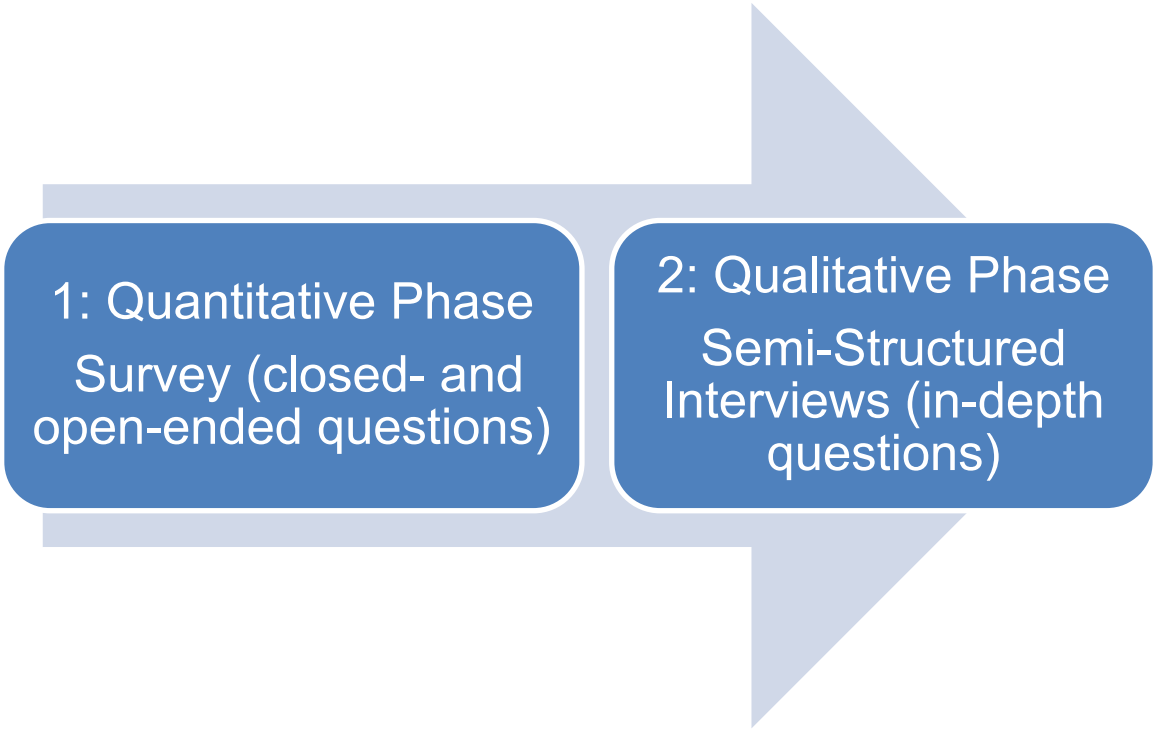
In the subsequent chapter (Chapter 3), the mixed methods of the current study are detailed to address the research questions. The quantitative research questions tackle the associations between wellbeing, mental health, demographic background, and the amount of schoolwork in relation to perceived academic achievement among middle school students during the COVID-19 pandemic lockdown in KSA. Qualitative research questions unveil students' experiences, insights, and perceptions related to their mental health, wellbeing, and academic progress during the lockdown.

Chapter 3: Methodology and Methods

This study was conducted using a mixed-method sequential-explanatory design (Creswell & Clark, 2017) to investigate the impact of the COVID-19 lockdown on the mental health, wellbeing, and perceived academic achievement of middle school students in KSA, following a two-phase design as shown in Figure 3.1. Adopting this pragmatic approach was useful for generating comprehensive data to answer the research questions.

Figure 3.1

Research Methods in the Two-Phase Design



The sequential-explanatory mixed-method approach consisted of two distinct but closely related phases. In the first phase, a survey questionnaire was administered to collect quantitative data, which was analysed using inferential statistical methods. Those methods were used to examine hypothesised relationships in the data arising from the conceptual model (see Figure 2.1 in Chapter 2) and research questions (see Section 2.12 in Chapter 2). In the second phase, semi-structured interviews with participants from the same population as the first phase, provided an in-depth

exploration of adolescents' experiences, perceptions, and insights related to the COVID-19 lockdown.

The details of the methods used in each phase are provided in this chapter; however, it is worth noting that the findings from the quantitative data in the first phase were used to inform the conduct of the second qualitative phase of the data collection process, which facilitated an emergent approach that brought forth multiple perspectives on the research problem, which centres on the impact of COVID-19 lockdowns and altered learning modalities on the academic achievement, wellbeing, and mental health of middle school students in KSA. The rest of the chapter presents the methodological design, research methods and the ethical considerations made in the conduct of the study. To ensure clarity, the two phases are addressed separately, however, the link between the two phases is made explicit.

3.1 Methodological Design

This study embraced a pragmatic philosophical stance by employing both quantitative and qualitative methods. Pragmatism, as an approach to research, has been supported by several scholars (e.g., Brierley, 2017; Creswell & Clark, 2011; Johnson & Gray, 2010) who have argued that it is an appropriate philosophical approach to use when conducting mixed-methods research. For instance, Ivankova et al. (2016) asserted that in practice, a pragmatic approach allows the researcher to develop a practical "procedure for collecting, analysing, and 'mixing' or integrating both quantitative and qualitative data . . . within a single study for the purpose of gaining a better understanding of the research problem" (p. 81).

Pragmatism was chosen for this study due to the constraints imposed by COVID-19 lockdowns and restrictions. The inability to conduct face-to-face interviews or engage in prolonged interactions with participants meant that more flexible and practical approaches were required. Pragmatism allowed for the simultaneous use of quantitative and qualitative methods, which could be adjusted according to the limitations of remote data collection. Alternatives, such as a purely positivist approach focusing solely on quantitative data or an interpretivist approach relying entirely

on qualitative methods, were considered. However, given the urgency and complexity of understanding students' wellbeing and academic outcomes during the pandemic, these approaches were insufficient in isolation. The mixed-methods approach allowed for the integration of both numerical data and the lived experiences of participants, providing a more complete understanding of the research problem under these unique circumstances.

While quantitative methods provide an understanding of an objective reality by studying and assessing individuals' behaviours, perceptions, and beliefs, qualitative methods help to contextualise those objective findings based on the participants' lived experiences (Creswell, 2014). By combining both quantitative and qualitative methods in an explanatory sequential design, this study aimed to provide a comprehensive understanding of the mental health and wellbeing of middle school students during the COVID-19 lockdown in KSA—the qualitative data was employed to explain the quantitative findings.

In integrating the data from both phases, the quantitative findings were first analysed to identify trends in students' wellbeing, mental health, and academic achievement. These findings were then compared with the qualitative data from the interviews. For example, in cases where quantitative results suggested that wellbeing had not been as severely compromised as expected, the qualitative interviews provided further context. The interviews explored new aspects of students' experiences during the lockdown, which helped to provide a more nuanced understanding of the factors influencing their wellbeing and academic outcomes. Further details on these findings can be found in Chapter 4 (see Section 5.2, qualitative study). This process of triangulating the data allowed for a more nuanced understanding of how different factors interacted and influenced students' wellbeing and academic outcomes.

As explained by McCrudden et al. (2019) and Bryman (2006), quantitative phases of mixed methods study provide a broad overview and generalisable insights, while the qualitative phases delve deeper into individual experiences and perspectives. Both quantitative and qualitative

approaches have their own distinct strengths and limitations (Kumar, 2018). Therefore, the combination of these approaches was deemed necessary to address the research questions that focused on exploring the impact of the COVID-19 pandemic on students' mental health and wellbeing as well as its impact on students' academic achievement. The mixed method research design enabled the generation of quantifiable data as well as qualitative data, which helped to develop a holistic understanding of how the COVID-19 lockdown impacted the mental health, wellbeing, and academic experiences of KSA middle school students.

Quantitative research uses a post-positivist perspective to drive research as a process of scientific inquiry (Creswell, 2014). Utilising a post-positivist perspective, the quantitative phase was driven by an ontological and epistemological quest to find objective answers to the research questions. Creswell (2014) explained that post-positivism aims to refine understanding of a social phenomenon by investigating the association between the variables in a study. In this study, these variables included perceived academic achievement, wellbeing, and mental health among Saudi middle school students during the COVID-19 lockdown.

While a quantitative approach was used to reveal the existence and strength of relationships between these variables, it did not explain the origins of these relationships. It is against this backdrop that the study complemented the data generated in the quantitative phase with qualitative data generated in the second phase of the study. The semi-structured interviews carried out in the second phase of the study facilitated the exploration of how living circumstances and socioeconomic factors were associated with students' wellbeing, depression, and anxiety, as well as the implication of these for the perceived academic achievement among middle school students in Saudi Arabia during the COVID-19 lockdown.

3.2 Population and Sample Selection

The study involved working with students drawn from Saudi Arabia's middle schools. Given the time constraints, a sample was drawn using convenience sampling of middle school students in Mecca and Taif, two important cities in KSA. Mecca province in particular experienced

a higher reported incidence of COVID cases in the early period of the pandemic lockdown than less-populated or more remote regions in the country as documented in a report by the World Health Organization [WHO] (2020b). This earlier exposure to the COVID-19 outbreak and the subsequent imposition of restrictions resulted in a longer duration of disrupted routines, limited social interactions, and heightened uncertainty for middle school students than in other regions of the country (Bawashkhah et al., 2022). These prolonged and intensified effects may have contributed to a more pronounced impact on students' academic achievement, mental health, and overall wellbeing. The unique cultural context, combined with the pandemic-related restrictions, offered a unique opportunity for study as the impact on middle school students in these regions was unknown.

The two cities, Mecca and Taif, were selected as the study locations due to their status as gateway cities, which were consequently, more exposed to the pandemic (Bawashkhah et al., 2022). In addition, it was convenient for the researcher to collect data from educational institutions in Mecca and Taif due to her familiarity with the locations and their school systems.

The age range (10–18 years) of participants covers the early and middle adolescent years as young people are beginning to forge their own identities and develop their independence (Newman & Newman, 2017). This age range was chosen because middle school students are undergoing a period of personal growth and a tendency for increased emotional sensitivity (Casey et al., 2008) when how an individual is seen by others becomes particularly significant. It was during this critical developmental phase that the school closures due to the COVID-19 lockdown occurred. As presented in Chapter 2, this could have contributed to heightened mental health problems and challenges to wellbeing (Lee, 2020; Aucejo et al., 2020; Chetty et al., 2020).

3.3 Participant Recruitment

To invite volunteer participation in this study, the researcher emailed a request and recruitment letter to the Saudi Administration of Education for both the Mecca and Taif regions

(Appendix A, letter A). Upon receipt of approval to recruit in these regions, the Saudi Planning and Development Department emailed a recruitment letter (see Appendix A, letter B) to all middle-school principals in the two regions.

Principals who agreed to involve their schools in the study were then asked to sign a letter of consent. Principals who consented to participating in the study were then sent recruitment letters to forward to parents of children enrolled in the school. Parents were asked to provide consent on behalf of their children to participate voluntarily in the survey, including those enrolled in both advanced placement (AP) and learning difficulty (LD) classes at their schools (see Appendix A, letter C). The objective of this approach was to ensure that both high and low achievers had equal opportunity to participate in the study. The parent and child recruitment letter contained a link to both the electronic consent form (see Appendix A, letter C) and to the online questionnaire (Appendix B) as one document. Three reminders were sent to schools after one, two, and four months (see Appendix A, letter I).

The recruitment process for the qualitative phase was similar to those steps followed in the quantitative phase of this study. However, additional parental consent (see Appendix A, letter H) for the qualitative study was obtained separately after the quantitative phase.

To initiate the approval process for the qualitative phase, a recruitment letter was emailed to the Administration of Education for both the Mecca and Taif regions (see Appendix A, letter D). Upon receipt of approval to recruit from these regions, the Planning and Development Department was tasked with emailing a recruitment letter (see Appendix A, letter E) to the principals who had previously consented to their schools participating in the quantitative phase.

Principals who consented to participate in the study were sent recruitment letters to forward to parents of children enrolled in the school who were asked to provide consent on behalf of their children to participate voluntarily in the qualitative study (see Appendix A: letter F). The parent and child recruitment letter contained a link to an electronic consent form (Appendix A: letter F), which was uploaded in Qualtrics. The consent form consisted of a “yes” or “no” click option indicating

having parental consent to participate in the study. If participants selected "yes," they were contacted to set up a time to conduct the interview. The participating students also provided their assent for both the questionnaire and interviews.

3.4 Consent and Ethical Considerations

The researcher obtained ethics approval from the Flinders University Human Research Ethics Committee (HREC) to conduct the quantitative first phase of the study. The approval letter can be found in Appendix A (see Social and Behavioural Research Ethics Committee (SBREC) Approval Letter). Upon receipt of consent from HREC, the conduct of the study was then approved by two educational jurisdictions in Mecca and Taif (see Appendix A). Quantitative data were collected from June 1 to September 30, 2020. The documents for obtaining consent, the recruitment letter to the principal and parents can be found in Appendix A. A copy of the research instruments used for collecting quantitative data can be found in Appendix B.

Before conducting the interviews, all participants signed a consent form confirming that they were made aware of their rights before participating in the study. No monetary reward was offered to participants to avoid any feeling of coercion. Further, while participants' names were collected on the consent form for organisational purposes, no personal identifying information was associated with the interview data to maintain privacy and confidentiality. All data were stored on a password-protected data storage device or the Flinders University Microsoft OneDrive data storage to which only the researcher had access. No other files or data were stored with the research data. The researcher did not have any conflict of interest in conducting the research. However, the potential for a conflict of interest due to the researcher's insider perspective as a teacher and researcher in the context of the study is acknowledged and addressed through reflexivity (see Chapter 4, Section 4.6).

3.5 Data Collection

The initial quantitative phase of the study was informed by the procedures used in a global study conducted by the Global Research Alliance (GRA) (see https://www.research-all.org/covid-

19-lock-down-questionnaire-for-students.php), which collected data during 2020 to assess the impact of the COVID-19 lockdown on student wellbeing and experiences of peer aggression (Skrzypiec & Wyra, 2020). Only selected parts of the complete questionnaire that related to the specific objectives of the current study were used, which included 25 selected items and several subsections (as discussed below).

3.5.1 Quantitative Data Collection

Questionnaire respondents were asked to share their experiences during the COVID-19 lockdown, including their sense of wellbeing, mental health, amount of schoolwork, and their perceptions of their academic achievement. The survey instrument also included an open-ended invitation for students to share their thoughts on the best and worst aspects of school closures and remote learning during the lockdown. The last part of the questionnaire collected demographic data, including age, indicators of socioeconomic status, and gender.

As shown in Table 3.1, the questionnaire employed the Depression, Anxiety Stress Scale (DASS-21) (Lovibond & Lovibond, 1996) to measure mental health, while the Mental Health Continuum-Short Form Scale (MHC-SF) (Keyes, 2006a, 2006b) was used to measure overall wellbeing. The questionnaire also included a single question on participants' perceptions of their academic achievement. The demographic data were collected through ten questions with varying response options. The open-ended questions in the questionnaire allowed participants to provide further insight into their experiences during the pandemic lockdown.

Table 3.1

Survey Scales and Their Description

Construct measured	Scale name	Scale description	Reference
Mental health (depression, stress, and anxiety)	Depression, anxiety stress scale (DASS-21) questionnaire	21 questions, 4-point Likert-type scale	(Lovibond & Lovibond, 1996)
Wellbeing	Mental health continuum-short form scale (MHC-SF)	14 questions, 6-point Likert-type scale	(Keyes, 2006a, 2006b)
Perceptions of achievement	Created for this study	1 question, 5-point Likert-type scale	(NCVER, 2009, p. 41)
Demographic information		10 questions	

3.5.1.1 The Depression Anxiety and Stress Scale. The Depression Anxiety and Stress Scale (DASS-21) used in this study was a shortened version of the original 42-item scale developed by Lovibond and Lovibond (1995). The self-report scale was designed to create a more focused and practical measure tailored specifically to capture anxiety, stress, and depression. It consists of 21 questions using a four-point Likert-type scale ranging from (1) "did not apply to me at all" to (4) "applied to me very much, or most of the time" (see Table 3.2).

Analysis of the DASS-21 has consistently presented a three-factor structure (Brown et al., 1997; Lovibond & Lovibond, 1996) and is made up of three sub-scales: depression, anxiety, and stress. Each scale consists of seven items. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia (Antony et al., 1998; Brown et al., 1997; Lovibond & Lovibond, 1996). The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect (Antony et al., 1998; Brown et al., 1997; Lovibond & Lovibond, 1996).The stress scale is sensitive to levels of chronic non-specific arousal and assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive, and impatient. Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items (Antony et al., 1998; Brown et al., 1997; Lovibond & Lovibond, 1996). The three DASS-21 domains and the items they include are shown in Table 3.2.

Research exploring the reliability of DASS-21 using Cronbach's alpha suggests that it is a reliable questionnaire (Coker et al., 2018). Further, prior research exploring the reliability of the full DASS in its 42-item form in Arabic revealed a Cronbach's alpha for the three subscales of .93 for depression, .90 for anxiety, and .93 for stress (Moussa et al., 2016). The construct validity of the scale is evidenced by its strong correlation with other self-rating depression and anxiety scales (Coker et al., 2018; Moussa et al., 2016). Therefore, the Arabic version of this instrument was considered empirically reliable and valid for the measure of these three constructs of depression, anxiety and stress. However, it is acknowledged that the study population in this research primarily consisted of adolescents, and while the DASS-21 has been used in various populations, its specific validation for adolescents in KSA is limited. To address this limitation, alternative scales, such as the Arab Youth Mental Health Scale (AYMHS), were considered. The AYMHS is designed for younger populations and assesses mental health in Arab youth across multiple domains. Although the AYMHS was a viable alternative, the DASS-21 was selected due to its more established use and validation in prior research, including in Arabic-speaking populations, and its ability to measure anxiety, stress, and depression with a concise set of items.

Table 3.2

Depression and Anxiety Stress Scale (DASS-21) Questionnaire Items and Sub-Scales (Brown et al., 1997; Lovibond & Lovibond, 1996)

Domain	Individual item
Depression	
	3. I couldn't seem to experience any positive feeling at all.
	5. I found it difficult to work up the initiative to do things.
	10. I felt that I had nothing to look forward to.
	13. I felt downhearted and blue.
	16. I was unable to become enthusiastic about anything.
	17. I felt I wasn't worth much as a person.
	21. I felt that life was meaningless.
Anxiety	
	2. I was aware of dryness of my mouth.
	4. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion).
	7. I experienced trembling (e.g., in my hands).
	9. I was worried about situations in which I might panic and make a fool of myself.
	15. I felt I was close to panic.
	19. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).
	20. I felt scared without any good reason.
Stress	
	1. I found it hard to wind down.
	6. I tended to overreact to situations.
	8. I felt that I was using a lot of nervous energy.
	11. I found myself getting agitated.
	12. I found it difficult to relax.
	14. I was intolerant of anything that kept me from getting on with what I was doing.
	18. I felt that I was rather touchy.

3.5.1.2 Mental Health Continuum-Short Form. The Mental Health Continuum-Short Form (MHC-SF) scale, developed by Keyes (2009), is an abbreviated version of the original long form, which consisted of 40 items. The short form consists of 14 items across three dimensions: emotional wellbeing (EWB), social wellbeing (SWB), and psychological wellbeing (PWB) (Lamers et al., 2011) that is used to assess the state of wellbeing of young adolescents as flourishing, languishing, or having moderate mental health.

The MHC-SF items were rated on a six-point Likert-type scale from "Never" (1) to "Every Day" (6). Students responded to questions about how they had been thinking "over the last week you were in lockdown–or last week if you are still in lockdown" (e.g., "That your life has a sense of direction or meaning to it"). Prior research suggests that this scale has shown "excellent

internal consistency (α = >.80) and discriminant validity in adolescents (ages 12–18) and in adults" (Keyes, 2009, p. 1). Table 3.3 depicts emotional wellbeing and psychological and social wellbeing as identified by the 14 questions on the MHC-SF (Keyes et al., 2012, p. 127). As with the DASS-21, the MHC-SF was selected for its ability to measure multiple dimensions of wellbeing in a concise manner. While other scales, such as the Arab Youth Mental Health Scale (AYMHS), were considered, the MHC-SF was preferred for its established reliability and validity across different cultural contexts, including limited research in Arabic-speaking populations. The MHC-SF also aligned with the study's focus on capturing a comprehensive understanding of overall wellbeing, including emotional, social, and psychological wellbeing.

Table 3.3

Items in the MHC- SF (Keyes,2009)

Type of Wellbeing	Corresponding MHC-SF questions
Emotional wellbeing	
	"How often during the past month did you feel…" 1. Happy 2. Interested in life 3. Satisfied
Social wellbeing	
	"How often during the past month did you feel…" 4. That you had something important to contribute to society. (Social contribution) 5. That you belonged to a community (like a social group, school, or neighbourhood). (Social integration) 6. That society is becoming a better place for people like you. (Social growth) 7. That people are basically good. (Social acceptance) 8. That the way our society works makes sense to you. (Social coherence)
Psychological wellbeing	
	9. That you liked most parts of your personality. (Self-acceptance) 10. Good at managing the responsibilities of your daily life. (Environmental mastery) 11. That you had warm and trusting relationships with others. (Positive relationship with others) 12. That you had experiences that challenged you to grow and become a better person. (Personal growth) 13. Confident to think and express your own ideas and opinions. (Autonomy) 14. That your life has a sense of direction or meaning to it. (Purpose in life)

3.5.1.3 Perceptions of Academic Achievement. This study used the perception of academic achievement question based on the approach taken for the Longitudinal Surveys of Australian Youth or LSAY(NCVER, 2009, p. 41), a survey that tracks the progress of cohorts of young Australians as they move from school into further education and employment. The perception of academic achievement question stem for this study was altered slightly from the original LSAY version (NCVER, 2009, p. 41) used by the Australian Council for Educational Research [ACER] (ACER, 1997, p. 9). The original LSAY question was: "Compared with other students about your age, how well do you achieve in [reading/mathematics/overall]?". However, this current study altered that to: "Compared with other students about your age, how well do you achieve [academically overall]?". The original five-point Likert-type scale used in the LSAY consisted of (1) "very well" to (5) "very poorly"; however, for this current study it was changed to (1) "much better than others" to (5) "much worse". This was done to encourage the respondent to make comparisons between themselves and their peers. Additionally, ACER conducted an objective achievement test, revealing a strong correlation between self-reported achievement and

the assessment results (ACER, 1997). This correlation served as a sound basis for choosing to use this modified item.

According to Jansen et al. (2022), comparisons with peers are important sources of self-development during adolescence, as previous studies have shown (Müller-Kalthoff et al., 2017; Wolff et al., 2018). While self-perception holds value, the act of comparing oneself with peers sheds light on aspects of perceived achievement that may have remained unseen through individual self-assessment alone (Wolff et al., 2018). For example, Müller-Kalthoff et al. (2017) used this approach asking students to evaluate their own performance within the context of their age group.

According to researchers such as Marsh and Hau (2004) and Scott et al. (1992), self-reported achievement, which encompasses individuals' perception and assessment of their academic performance in comparison to their peers, can be taken as an acceptable alternative to an objective measure of achievement. The self-report method, therefore, served as a suitable measure for academic achievement, given that the lockdown prevented other means of obtaining this information, such as objective achievement test scores, teachers' observations, or academic reports.

3.5.1.4 Other Questionnaire Data. The quantitative study included questions designed to gain an understanding of the behaviour, beliefs, and perceptions of experiences during lockdown. Examined aspects included students' activities during the lockdown, their open-ended responses about the lockdown experience, and demographic information. The questionnaire also took into account the potential impact of social desirability on responses.

3.5.1.4.1 Frequency of Activities During Lockdown. Participants were asked eight questions about the frequency of their activities before and after the lockdown. The questions covered a range of activities, including doing schoolwork, watching movies, playing online games, socialising with friends, playing games, and exercising. These items were rated on a 5-point Likert-type scale, with response options ranging from (1) "much less than before lockdown" to (5) "much more than before lockdown". Skrzypiec and Wyra (2020) developed these questions

for the purpose of measuring whether activities during the lockdown had increased or decreased. However, in the current study, only the frequency of schoolwork engagement was analysed. By focusing specifically on the relationship between the amount of time spent on schoolwork and the correlation with academic achievement, this study aimed to analyse the association of schoolwork on students' learning outcomes during the lockdown. Other variables, such as TV watching and online gaming, were not relevant to this research and were not included in the analysis.

While the initial intent was to focus exclusively on schoolwork due to its direct relevance to academic achievement, the collected data on other activities such as TV watching and online gaming became useful for contextualising students' overall lockdown experience and were therefore included in the analysis presented in Chapter 4, section 4.1.6. This approach allowed for a more comprehensive understanding of the broader behavioural changes during lockdown.

3.5.1.4.2 Open-Ended Items. Two open-ended items, adopted from the original research questionnaire (Skrzypiec & Wyra, 2020), were included that gave students the opportunity to provide comments about their own thoughts and/or experiences about being in lockdown. These items were situated following the administration of the DASS-21 and MHC-SF scales but preceded the section collecting demographic information. Participants were asked, "Please tell us what for you has been the worst part about being in lockdown?" and "Please tell us what for you has been the best part about being in lockdown?" The answers served to illustrate the nature of the experiences and feelings expressed by the students and to incorporate their voices.

3.5.1.4.3 Demographic Questions. Demographic information was gathered in relation to age, gender, grade level, school name, family structure, and socioeconomic status. Demographic questions are included in Table 3.4.

Table 3.4

Demographic Information and Response Options

Demographics information	Response options
Age	10/11/12/13/14/15/16/17/18
Gender	Male/Female/Prefer not to say
School name	……..
Family composition	Father/Mother/Grandparent/ Uncles/Aunts/Brothers/Sisters /Other Relatives
Father's education level	No formal/Primary/Intermediate/ High school graduate/ Bachelor's/Master/Doctoral
Mother's education level	No formal/Primary/Intermediate/ High school graduate/ Bachelor's/Master/Doctoral
Household income	Under 2,000 Riyals/5,000 Riyals/5,000 to 10,000 Riyals/10,000 to 15,000 Riyals/15,000 Riyals and greater/ prefer not to say

Only two categories—male and female—were used for gender because, due to Saudi Arabia's strict religious adherence, gender is considered a binary variable. Family structure in this study was measured by asking participants to indicate whether their family consisted of or included brothers and sisters and extended family members (such as grandparents, aunts, and uncles). Examining family structure during lockdown was considered essential as it would unveil how the pandemic may have affected students across diverse family arrangements. It was not known whether family structures could hinder or support students' academic endeavours, thereby directly influencing students' capacity to navigate remote learning and manage the challenges posed by lockdowns.

The participants' socioeconomic status was measured by asking questions about their parents' income and level of education. Generally, socioeconomic status (SES) is measured by occupational status, income, and education (Conger & Donnellan, 2007; Duncan & Magnuson, 2003; Winkleby et al., 1992). Parents' education level is commonly used as an indicator of socioeconomic status as it is related to access to economic resources, social networks, and opportunities for upward mobility (Assari, 2018). In this study, parents' education was measured by asking participants to report the highest level of education completed by their fathers and mothers.

Household income is widely recognised as an important indicator of socioeconomic status. Darin-Mattsson et al. (2017) concluded that income is one of the most strongly contributing factors to SES. Hence, household income is a core SES indicator and in various studies the SES measure is solely dependent on household income or per capita income (Saif-Ur-Rahman et al., 2018). Household income serves as a proxy measure for the type of school and resources that an individual can afford in many contexts including some research conducted in Saudi Arabia (e.g, Al-Khraif et al., 2020; Alfaraidy, 2020; Almalki & Ganong, 2018). Household income is also considered a valid indicator of SES because it is directly related to a family's access to economic resources and opportunities (Darin-Mattsson et al. (2017).

In this study, participants were asked about their monthly household income in Saudi Arabia Riyals (SAR) (1 riyal ≈ 0.27 USD, 0.37 AUD), which is the official monetary unit of the country. Since the disclosure of a person's income is sensitive information and some participants may not have felt comfortable sharing details of their family's income, participants were also given the option of "Prefer not to say." The data on SES was used to examine the associations between socioeconomic status and academic achievement.

According to Conger and Donnellan (2007), the dimensions of occupational status, income, and parental education can be considered either separately in any analysis of SES (Li & Qiu, 2018), or by using a composite latent construct that aggregates all three dimensions. In educational or child-development studies, SES is related to the student's family, not the individual (Li et al., 2020). Therefore, income is measured by household income and other indicators related to household income, while education and occupation may be related to both parents or only to one parent (Duncan & Magnuson, 2003). The use of the mother's education, father's education, and household income as a composite measure of socioeconomic status is a widely accepted practice in the research literature (Li et al., 2020; Li & Qiu, 2018). Additionally, using these three as a composite measure of SES can help to control for the high correlation between the three components, which could lead to multicollinearity issues if used separately.

In this study, a preliminary investigation yielded a one-factor model of SES, combining indicators of mother's education, father's education, and household income. This model produced an SES factor score, incorporated as an observed variable in the final Structural Equation Model (SEM). This approach led to a more parsimonious model for analysis, preserving critical SES information while ensuring a practical, easily understandable analytical model.

3.5.1.4.4 Socially Desirable Responses. The questionnaire included a social desirability (SD) sub-scale to determine whether any responses showed bias and reflected socially desirable views rather than truthful answers, specifically acquiescence, which is the tendency where some respondents predominantly agree with all statements regardless of the content of the questions (Krosnick et al., 2005). The SD sub-scale consisted of three items: "I have always told the truth," "I always share my lollies/sweets/treats," and "I like everyone I have met." All items on the scale are rated on a five-point Likert-type scale, ranging from (1) "not true at all" to (5) "true nearly all the time". Askell-Williams et al. (2016) and Liddle and Carter (2010) reported that respondents answering a maximum score on the SD scale suggest a positively biased response. Moreover, Liddle and Carter (2010) argued that SD questions are key to identifying those people who do not answer the questionnaire properly and therefore should be removed. Accordingly, and similar to the procedure used by Askell-Williams et al. (2016), questionnaires from participants with maximum SD scores were removed.

3.6 Questionnaire Translation

According to Cha et al. (2007), when conducting research with non-native English-speaking populations, it is crucial to be thorough in the examination of the translation of scales originally in English. This includes performing a back translation, as well as considering the cultural context of the translation (Al-Amer et al., 2016; Aloudah, 2022). Since Arabic is the first language of the participants, the researcher translated the questionnaire from English into Arabic and sought translation feedback from a panel of experts fluent in Arabic who work in the education sector and are part of the researcher's professional network. The DASS-21, which had been previously

translated into Arabic and then checked for reliability in a prior study (Moussa et al., 2016), did not require renewed translation.

The translation process involved the researcher and another bilingual Ph.D. student specialising in English linguistics at Flinders University. Two educators proficient in Arabic and English reviewed both versions of the translated questionnaire and provided feedback on clarity and comprehensibility. No substantial differences were found between the two versions.

A certified National Accreditation Authority for Translators and Interpreters (NAATI) translator back translated the final draft of the Arabic version in order to confirm that the intended meaning of the content was not lost. In each case, cultural and contextual correspondence and accuracy was reviewed and discussions were carried out and settled on the usage of certain words and their translation, so that translations matched the intended meaning accordingly and to ensure the validity of the translations.

One instance that illustrates the nature of these discussions concerns the translation of the term *lockdown*, during which some complexity was encountered in finding the right translation that accurately described the concept of large-scale compulsory physical distancing and movement restrictions during the pandemic (WHO, 2020). After careful consideration, the decision was made to use a common term in KSA, which is the combination of two Arabic words, الحجر المنزلي, meaning *home quarantine*, to convey the idea of being confined to home, in lockdown, and not being able to go to school, places of worship, or public places. During the back-translation review, no major differences were found between the original and back-translated versions.

The MHC-SF and DASS-21 scales had been previously used in Arabic-speaking populations and those applications provided insight into the potential cultural appropriateness of the scales (Ali et al., 2021; Moussa et al., 2016). In the case of the MHC-SF, there had been only limited research on its use in Arabic-speaking populations; nevertheless, studies by Salama-Younes (2011) and Saleh and Kazarian (2015) suggested that MHC-SF is a valid and reliable measure of wellbeing. As noted above, the DASS-21 had been translated and validated in prior studies (Ali et al., 2021;

Moussa et al., 2016) and therefore did not require translation. All forms used in this study were in Arabic and are provided in Appendices B.

3.7 Qualitative Data Collection

Qualitative data was collected using semi-structured interviews that sought the views and experiences of participants regarding their general wellbeing and their perceived levels of depression and anxiety and how, in their view, these factors impacted their academic achievement during the lockdown. Since there was no opportunity to probe or follow up on the written responses in the open-ended questions on the survey questionnaire, the second phase using semi-structured interviews provided an opportunity to generate in-depth data and more clarity on the responses as there was an opportunity to elucidate and elaborate that data through the use of probing questions.

During the interviews, participants were encouraged to elaborate on their perspectives through open-ended responses and cross-questioning interactions with the researcher. This approach aimed to enhance the richness and depth of the study findings by enabling participants to express their thoughts and experiences in their own words. The researcher utilised active listening skills (Louw et al., 2011) to encourage participants to share more information, leading to the emergence of personal stories related to depression, anxiety, coping, and the perceived influence of the lockdown on academic achievement. In each interview, a repertoire of questions was used. Table 3.5 shows some of the interview questions from the semi-structured interview guide.

Table 3.5

Semi-Structured Interview Guide Questions

Issues	Interview questions
Views about online classes/Home environment	
	1. What was it like to be at home? 2. Who helped you with your classes during the day? 3. While learning online, what are the challenges you faced? 4. Can you describe the difference in the amount and kind of homework/schoolwork you received while schooling online versus in the classroom? 5. Do you think that learning online instead of face-to-face affected your academic performance? 6. Can you describe your learning strategy with class materials when in face-to-face classes, versus while conducting classes online? 7. Compared with other students about your age, how well do you achieve overall?
Living arrangements	
	8. Tell me a little bit about your living arrangements when you were in lockdown. 9. Do you have any friends or relatives that are at your home often? 10. What was it like to study when you had this kind of family structure? 11. How do you perceive your home environment to have impacted your learning during the pandemic lockdown? 12. To what extent has Islamic religious belief enabled you to persist during the Covid-19 lockdown?
Impact of COVID on the wellbeing of students	
	13. What is the best part of coming back to school? 14. When you returned to school, were you excited about seeing your classmates and friends? 15. What kind of things worry you most or do you find most challenging as a result of COVID? 16. How well did you cope with the lockdown situation? *Probes:* a feeling of fear regarding COVID situation 17. What kind of pressures have you experienced? 18. What about your feelings, what emotion did you feel the most during online learning? 19. Is there anything that your teachers or classmates did to better help you adjust to the new learning platform?
The link between wellbeing and academic achievement	
	20. Do you think that your wellbeing or health has any kind of impact on your academic performance or achievement? 21. Do you believe, and in what way, does your happiness affect your level of academic achievement? 22. Do you believe, and in what way, does your belief about your potential to succeed affect your academic achievement?
Mental health	
	233. How do you feel about the whole COVID and lockdown situation and how did you cope with that? 24. How would you say your mood changed, if at all, as a result of the lockdown? 25. Were you able to talk to your friend or family member about this situation? 26. As compared to when you were physically in school, can you describe any changes in your level of happiness or ability to function in everyday life or in getting your school work done while in lockdown?
The link between mental health and academic achievement	
	27. Do you think that feeling of [whatever student state in previous question] had an impact on your learning and academic achievement? 28. How would you say COVID or lockdown affected your motivation to attend class and study? 29. During the lock down, did you experience any difficulty with your online classes as a result of a change in your mood?

Interview questions shown in Table 3.5 explored the impact of the home environment, including inquiries about the participant's living arrangements during lockdown and any relatives or members who formed part of their household. These questions aimed to reveal the potential influence of these living arrangements on students' pandemic learning experience detailed further in Chapter 4. Other questions elucidated the extent to which students communicated online with friends to discuss their situation.

Similarly, questions examining perceived impacts of COVID-19 on student wellbeing probed into emotional changes, pressures experienced, and coping mechanisms adopted during the lockdown. Insights from these responses, which are discussed in-depth in Chapter 4, also informed the link between wellbeing and academic achievements, with questions exploring whether students felt their emotional state and beliefs about their ability to succeed could affect their academic performance. Lastly, inquisitive prompts seeking to analyse the connection between mental health and academic achievements were included, examining perceived impacts of the pandemic on student motivation and potential challenges experienced in online classes as a result of mood changes.

The interview protocol and the full interview questions are provided in Appendix C: Interview Protocol. The use of semi-structured interviews, where the researcher poses similar questions, in the same sequence, to all interviewees, can ensure that the responses from all interviews can be effectively aggregated and systematically analysed (Peters & Halcomb, 2015).

The qualitative phase of this research involved eight female students, with no male participants included. Due to cultural and religious norms within Saudi society, direct communication between unrelated females and males, such as would be necessary in conducting interviews, is prohibited and meetings or other interactions were therefore not practicable. Consequently, as a Saudi female, it was not culturally or ethically permitted for the researcher to interview Saudi males, even online, and this is one of the acknowledged limitations of this study. This aspect of gender-based segregation in Saudi Arabia was discussed in Chapter 1.

Interviews with the eight female participants, aged 13–15, were conducted using Microsoft Teams after obtaining their consent as well as that of their parents. The interviews lasted from 20 to 25 minutes, with an average length of 22 minutes. Interview length varied depending on the extent to which the researcher was able to establish an empathetic relationship with each participant. According to Corbetta (2003), interviews will "have an extremely individual character and will differ widely in terms of both the topics discussed and the length of the interview itself" (p. 276).

Recruitment for the qualitative phase was stopped after eight participants because no further individuals expressed interest in participating following the initial outreach. Despite efforts to recruit additional participants, this sample size reflects the limited response from the targeted population, highlighting a limitation of the study. Data collection was intended to continue until data saturation was achieved, which is the point at which no new data or themes emerge during interviews, and additional participants do not alter or add to the research findings (Saunders et al., 2018). However, the decision to proceed with eight participants aligns with a pragmatic methodology, focusing on the feasibility and depth of data collection rather than a larger sample size. This approach allowed for in-depth exploration of participants' experiences, consistent with the study's qualitative design. Nonetheless, the limited number of participants constrains the generalisability of the findings and should be considered when interpreting the results.

At the beginning of each interview the researcher explained the purpose of the study and the voluntary nature of participation so that participants understood they could withdraw from the study at any time without consequence, as well as request that any part of the interview be omitted. There were no withdrawals requested by participants.

All the interviews were conducted and recorded in Arabic, which is the first language of the interviewees. The researcher, being fluent in both English and Arabic, listened to the recordings in Arabic and selected relevant segments for coding and analysis. Subsequently, selected segments of the interviews were translated into English to facilitate the presentation and interpretation of the data.

3.7.1 Data analysis

Statistical methods were employed to analyse data collected from the survey of middle school Saudi students. The main focus of the quantitative analyses was the construction and testing of the hypothesised structural model relating wellbeing, depression, anxiety, demographics, and amount of schoolwork to perceived academic achievement (see Figure 4.4 in chapter 4).

Basic descriptive analysis was performed for various individual demographic groups, including an examination of latent variables (i.e., mental health and wellbeing in this study), which are defined by Raykov and Marcoulides (2012) as hypothetical constructs or factors that cannot be directly measured.

3.7.1.1 Data Cleaning and Preliminary Analysis. In this study, the process of data cleaning and preliminary analysis is fundamental to ascertain the reliability and validity of the datasets (Baur et al., 2015). This step was crucial, as it enhanced the overall data quality, mitigated potential bias, and therefore improved the subsequent data analyses (Baur et al., 2015; Ehrlinger & Wöß, 2022). The methodologies employed in this study encompassed: managing missing data (Dong & Peng, 2013), examination of data distribution (Field, 2018), performing a Confirmatory Factor Analysis (CFA) of scale scores (Kline, 2016), calculating mental health and wellbeing scores (Keyes, 2009), measuring Socioeconomic Status (SES), checking for potential clustering (Moineddin et al., 2007), and conducting the Analysis of Variance (ANOVA) tests (Field, 2018) and a Multinomial Logistic Regression (MNLR). Each of these aspects are discussed in detail in the following subsections.

3.7.1.1.1 Missing Data. To understand the incidence of missing data and investigate possible reasons for it, missing data values were coded for all variables. In this study, the code "77" indicated that a question was not applicable to the respondent, while the code "99" was used when a question was not answered due to non-response or refusal. The initial participant pool consisted of 497 cases, and cases were excluded in listwise fashion in the following sequence: those without parental consent (19 cases), those with high scores on social desirability (23 cases),

and those with more than 50% missing data on any of the major constructs (MHC-SF and DASS-21 scales, and demographic variables) (53 cases). A 50% threshold was adopted as a conservative measure to balance data sufficiency, potential bias reduction, and analysis validity. This threshold was chosen based on past research findings and practical considerations (Dong & Peng, 2013), further detailed in Appendix D. Upon final exclusion, 401 cases were available for analysis. Table 3.6 summarises the sequence of case inclusion and exclusion.

Table 3.6

Case Inclusion and Exclusion

Case stage	Initial deletion	Second deletion	Final deletion
Total cases	497	478	455
Cases removed (listwise deletion)			
No consent	19	N/A	N/A
Max. Social desirability	N/A	23	N/A
50%+ missing data (DASS-21)	N/A	N/A	4 cases (1.1%)
50%+ missing data (MHC-SF)			9 cases (2.4%)
50%+ missing data (Demographic)			41 cases (12.2%)
Remaining cases	478	455	401

Individual cases were excluded through listwise deletion (Chen & Åstebro, 2003; Peugh & Enders, 2004), maintaining as much of the original participant pool as possible within each scale and demographic variable. While listwise deletion is widely criticised as "one of the worst available" (Hayes et al., 2008, p. 351), methods for analytic purposes this approach was used due to its simplicity and for pragmatic reasons. For example, cases for which consent was not indicated, ethical requirements dictated their removal. Further, for cases with high proportions (more than 50%) of missing responses, the judgment was made that they should be deleted because the substantial proportion of missing data would likely compromise the validity and reliability of the subsequent analysis and potentially introduce bias (Madley-Dowd et al., 2019). This process left some cases with missing observations (less than 50%) and these were managed through the use of the full information maximum likelihood (FIML) option in analyses conducted using Mplus (Muthén & Muthén, 2009). FIML ensures unbiased parameter estimates and is as effective as Multiple Imputation methods under the conditions of missing completely at random (MCAR),

which was the situation that was encountered in this study (Dong & Peng, 2013; Zhang & Savalei, 2018).

It is acknowledged that missing data, which amounted to a significant portion (20%) of the total data, could impact the generalisability and statistical power of the analyses performed. However, to diagnose the nature of missing data for the 401 cases left in the final analysis, Little's (1988) MCAR was performed. The results showed that the missing observations were missing at random for all variable data, where missing instances are independent of both observable variables and unobservable parameters of interest (Kang, 2013), allowing their use in subsequent analyses. In such a scenario, listwise deletion can offer unbiased estimates, albeit at the peril of reduced statistical power (Kang, 2013). Enders (2010) Juhola and Laurikkala (2013) asserted that missing data rates of less than 20% insignificantly affect the results, and thus, this study's missing data rate of 19.3% was deemed acceptable.

3.7.1.1.2 Data Distribution. Normality tests and identification of outliers were also conducted during the preliminary analysis. No outliers were found in the data, and therefore, as argued by Aguinis et al. (2013), no data points were excluded from the final analysis.

As recommended by Wulandari et al. (2021), normality of data was assessed through descriptive statistics including mean, median, mode, skewness, and kurtosis values using Statistical Package for the Social Sciences (SPSS). Graphical evaluation using histograms, box plots, and normal probability plots was also conducted to determine normality. These statistics provide valuable insights into the central tendency, symmetry, and shape of the data distribution, which aided in determining its adherence to a normal distribution (Field, 2013). Data were also checked for normality using Kolmogorov-Smirnov (K-S) tests and skewness statistics as well as graphically using frequency graphs and normal probability plots (Elhan et al., 2006; Field, 2018). The results of the Shapiro-Wilk's test ($p < .05$) showed that the distributions of these variables were not consistent with the assumption of normality (Field, 2013 pp. 179-181).

While non-normality of predictors is not a concern in regression models, including SEM, the issue arises when they are dependent variables (Li et al., 2012). In this study, the dependent variable, perceived academic achievement, exhibited a non-normal distribution. It is crucial, to consider the context of non-normal distribution in further interpretation and statistical procedures. In order to handle the non-normality of the data, MLR (Robust Maximum Likelihood) estimation method was used in all Mplus analyses. This estimation method includes robust algorithms specifically designed to appropriately handle skewed data (Muthén & Muthén, 2009).

3.7.1.1.3 CFA of Scale Scores. Confirmatory factor analysis (CFA) procedures were used to test scale coherence and to calibrate the scales used to measure wellbeing, through the MHC-SF, and mental health (depression and anxiety) through the DASS-21 questionnaire. Latent variable scores were calculated using factor score coefficients derived from the CFA using the method described by Holmes-Smith and Rowe (1994) after model trimming (Kline, 2016). These are reported in Appendix D.

The objective of CFA is to test whether a hypothesised measurement model fits the data (Brown, 2015a; Goretzko et al., 2023). During the CFA, a small number of items were removed that did not make substantial contributions to their conceptualised factors either because they had high cross loadings, had low loadings on the intended factor, or showed highly correlated errors. Items were dropped where they had a loading of less than 0.5 or where their loadings were greater than 0.5 on two or more factors (Hair et al., 2010). A cut-off point of 0.5 or greater was selected in this study because this threshold value was deemed crucial to ensure practical significance for sample sizes of 150 and above prior to conducting confirmatory factor analysis (Hair et al., 2010; Ledesma & Valero-Mora, 2007). Adjustments, including removing poorly performing items with high cross-loadings, low factor loadings, or highly correlated errors, as well as correlating items that suggested the presence of a sub-factor, were made to ensure an adequate model fit (Kline, 2016). These modifications were necessary as the concepts may not have been salient to KSA adolescents.

For example, the item “that you had warm and trusting relationships with others” within the psychological wellbeing (PWB) factor of the MHC-SF (Keyes, 2006) is one instance where item modification was found to be necessary and this item was subsequently dropped. This item might be difficult for some participants to assess given that young people are still in the process of developing their own identity and interpersonal relationships (Rotenberg, 2019). Consequently, they may not have given much thought to their trust in relationships, making the concept difficult to assess.

The final scales used in structural equation modelling (SEM) were based on the refined scales. During this refinement process, two items were dropped from the DASS-21: one from the depression factor “I found it difficult to work up the initiative to do things”, and another from the anxiety factor “I felt I was close to panic”. In the case of the MHC-SF scale, five items were removed, consisting of two items from the SWB factor: “That our society is a good place, or is becoming a better place, for all people” and “That people are basically good.”, two from the PWB factor: “That you had warm and trusting relationships with others” and “That you liked most parts of your personality.”, and the item, “Satisfied with life,” was dropped from the EWB factor. For a comprehensive understanding of the refinement process, a detailed discussion is available in the data preparation section in Appendix D.

Having well-fitting measurement models are essential as they directly influence the study’s validity, reliability, and the accuracy of the hypothesised relationships examined in the SEM (Kline, 2016). They also improve the interpretation of results, enhance predictive accuracy, and eliminate the possibility of misleading conclusions. Therefore, the quality of inferences from the SEM model is fundamentally tied to these measurement models.

3.7.1.1.4 Mental Health and Wellbeing Scores and Categories. An overall student wellbeing score (a latent variable comprised of 9 items from the MHC-SF questionnaire) was calculated using the saved factor score coefficients derived from the MHC-SF measurement model, as shown in Appendix D, CFA section. The MHC-SF items were selected based on their

demonstrated reliability and validity in measurement, which provides a comprehensive evaluation of students' wellbeing (Keyes, 2009; Williams & Smith, 2018). The resulting factor score coefficients were used in the calculation of the overall student's wellbeing score. These coefficients were summed, and each coefficient was then divided by the total sum to ensure scores remained on the original scale. This approach aligns with established practices (Keyes, 2009; Williams & Smith, 2018), allowing for an accurate calculation of the student's wellbeing score.

Subsequently, this overall wellbeing score was used to determine whether a student was flourishing, languishing, or had moderate mental health. Languishing was categorised as "never" or "once or twice," moderate mental health was categorised as "about once a week" and "two to three times per week," and flourishing was categorised as "almost every day" and "every day," according to the respective scale. The classification of student wellbeing into three categories (languishing, moderate mental health, or flourishing) is consistent with the developer of the MHC-SF questionnaire, according to Keyes (2009). These three categories were used in subsequent analyses to classify students' wellbeing.

The stress factor was removed after CFA due to poor fit with the current adolescent sample and overlaps with anxiety and depression symptoms (Jovanovic et al., 2021; Shaw et al., 2017). Other researchers studying adolescents have also found a two-factor model (depression and anxiety) to provide a better fit than a three-factor model (DASS-21) (Shaw et al., 2017). This is due to the overlapping symptoms of stress, anxiety, and depression in adolescents, making it difficult to distinctively measure stress using the DASS-21 questionnaire (Jovanovic et al., 2021; Shaw et al., 2017). Additionally, the current research focus was on depression and anxiety, further justifying the exclusion of the stress scale. Hence, only depression and anxiety factors were used to calculate the overall student mental health score. For further details on the additional investigations and decisions made regarding mental health variables, refer to Appendix D.

A second order factor model (depression and anxiety factors) was estimated to calculate an overall student mental health score, while the depression and anxiety factors were also estimated separately (see Appendix D, CFA section). The resulting predicted metric scores, measured in the natural metric of the assessment instrument, were then converted to z-scores. The conversion to z-scores was necessary because items were removed from the original scales during the refinement process, as shown in detail in Appendix D, CFA section. Relying on raw scores or the usual metrics associated with these questionnaires could lead to potential inaccuracies in interpretation due to different possible maximum raw scores. Z-scores allow for standardisation of scores across scales measuring negative factors (Andrade, 2021). For depression for example, a z-score of less than 0.5 was used as a cut-off to indicate a "normal" level of depression, as suggested by Douglas et al. (2018) and Lovibond and Lovibond (1996). To convert the predicted metric scores into z-scores, a standard scale with a mean of 0 and a standard deviation of 1.0 was used.

Subsequently, the z-scores were categorised into different levels of severity for depression and anxiety symptoms as reported by the students, according to the cut-off scores from Lovibond and Lovibond (1996). The severity for depression ranges from 0-28+ (where 0–9 is normal, 10–13 is mild, 14–20 is moderate, 21–27 is severe, 28+ is extremely severe), and for anxiety from 0-20+ (where 0-7 is normal, 8–9 is mild, 10–14 is moderate, 15–19 is severe, 20+ is extremely severe), with higher scores indicating an increased level of symptom severity

3.7.1.1.5 Measures of SES. The initial data analysis involved determining a measure of socioeconomic status (SES). This process included examining the data for SES variables and assessing multicollinearity among them. A one-factor model was conducted using three key indicators, mother's education, father's education, and household income, which resulted in a saturated model with zero degrees of freedom. To address these constraints, a factor score for SES was generated from the latent construct in the saturated model, integrating it as an observed variable in the final Structural Equation Model (SEM). This led to a more parsimonious model for analysis while retaining essential SES information, as detailed in Appendix D.

The multicollinearity among the SES variables (mother's education, father's education, and household income) was evaluated using a correlation matrix using SPSS (Lorenzo-Seva & Ferrando, 2006). The Spearman correlation coefficient was calculated to determine the correlation between the SES variables, as this method is appropriate for ordinal or non-normally distributed data (Schober et al., 2018), which is often the case in social science research and is the case here. The guidelines suggested by Hair et al. (2010) were used to ensure that there was no essential overlap between the variables, which is defined as a correlation coefficient greater than 0.8.

3.7.1.1.6 Potential Clustering. The interclass correlation coefficient (ICC) was computed in Mplus to determine the possible clustering in the datasets to explore whether the clustering of students by school was associated with their responses. The outcome indicated that ICC values for all variables were less than 0.1, indicating that multilevel modelling was not necessary for this analysis (Moineddin et al., 2007; Ntani et al., 2021).

3.7.1.1.7 The Analysis of Variance test. A one-way ANOVA test was used to determine the significance of the association between each student's academic achievement scores (note: this is not a "score" in its literal meaning, but a self-rating measure relative to peers) and several factors, including SES, schoolwork levels, demographic variables such as age, and gender. The use of one-way ANOVA aimed to identify variables with substantial associations with perceived academic achievement, providing justification for their inclusion in the final SEM.

As described by Field (2018) and Higgs (2009), the ANOVA test was used to determine if there was a significant difference in means between groups when there were three or more groups on independent variables. ANOVA has three assumptions: data normality of the dependent variable, independence of groups, and homogeneity of variance across groups (Field, 2018). However, it is worth noting that the assumption of data normality may be challenging to fulfill in the case of self-rated relative achievement, as it represents a subjective rating rather than a traditional continuous

variable. Nevertheless, ANOVA still allows for the comparison of means among groups and assuming independence of groups (Field, 2018).

3.7.1.1.8 Multinomial Logistic Regression (MNLR). A Multinomial Logistic Regression (MNLR) (results outlined in Appendix D) was performed in SPSS to analyse the outcome variable of subjective academic achievement and predictor variables, which included wellbeing, mental health, SES, age, gender, and schoolwork. This analysis was chosen because the outcome variable, subjective academic achievement, is categorical but has been treated as continuous in the SEM. The objective was to determine whether treating it as categorical yielded different results, specifically, whether the predictors reported in the SEM were consistent with those in the MNLR. The MNLR findings aligned with the observations from the path model presented in Chapter 4, reinforcing the model's consistency and reliability. Both MNLR and SEM analyses emphasised that wellbeing consistently emerged as a significant predictor. This consistency supports the decision to treat subjective academic achievement as continuous in SEM, reinforcing the model's robustness and explanatory capacity.

3.8 Structural Equation Modelling

The Structural Equation Model (SEM) provides robust information about the relationships between variables, since it takes into account the measurement error of the observed variables being studied (Raykov & Marcoulides, 2012). Mplus was used to conduct the SEM analysis, as outlined by Geiser (2012). Mplus, a syntax-based program, was deemed more desirable than AMOS and SPSS due to its greater flexibility (Narayanan, 2012). Mplus is particularly advantageous for analysing both categorical and continuous data (Muthén & Muthén, 2010).

To assist in building the SEM model, several factors were tested separately for their predictive associations with self-perceived academic achievement, including wellbeing, depression, anxiety, the amount of schoolwork, SES factors (specifically the father's education, mother's education, and household income), and demographic factors, such as gender, and age. Additionally, SES factors were examined both separately and as a latent variable.

Path analysis was conducted to test the effect of all these factors on self-perceived academic achievement. Significant associations were identified, and fit indices were examined. Based on the results, all the factors were added to the model and SEM with a series of direct and indirect paths was used to test hypotheses (Raykov & Marcoulides, 2012). SEM was used to examine the middle school Saudi students' perceived academic achievement association with wellbeing, mental health (depression and anxiety), and their demographic information.

The black-coloured paths in the SEM model (see Figure 4.4 in Chapter 4) indicate significant associations ($p < 0.05$), while the grey paths indicate non-significance. Despite not being significant, a non-significant path has been included in the model due to its theoretical interest and relevance for the study. In the structural part of the model, a line with one arrow (→) represents a direct association between two variables, with the arrow pointing towards the dependent variable. These arrows are referred to as beta coefficients, representing associations between the variables. In contrast, in the measurement part of the model, the arrows represent residuals or error variables. These residual arrows represent the variance that is not predicted by the independent variables (Ullman, 2006), as they signify that "nothing is perfectly predicted" (Ullman, 2006, p. 37). This provides additional information about the relationship between the observed and latent variables.

A series of models were tested for absolute fit, which refers to evaluating the theoretical model against observed variables (Brown, 2015b; Hox & Bechger, 1998; Kline, 2016). Traditionally, model fit was assessed using the chi-square (χ^2) statistical test, where a non-significant value indicates an acceptable fit (Alavi et al., 2020; Kline, 2016). However, this measure of absolute fit is sensitive to sample size and non-normal data, potentially leading to inaccurate estimations (Hox & Bechger, 1998). Therefore, fit indices were also used in this research, including the comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardised root mean square residual (SRMR), which provide a more holistic view of the goodness of fit. While there is no universally agreed-upon criterion for acceptable model fit, Brown (2015) proposed that SRMR values close to or below 0.08, RMSEA

values close to or below 0.06, and CFI and TLI values close to or greater than 0.95 indicate a reasonably good fit.

The standardised factor loading coefficients greater than 0.60 show strong indicators for the latent construct (Anderson & Gerbing, 1988). According to Hair et al. (2010) and Awang (2012), items with loadings less than 0.5 should be removed from the model. Awang (2012) recommended removing items one-by-one because the removal of one item can change the loading of other items and the model fit as well.

To test model fit in this research, an algorithm based on the RMSEA approach was applied, with consideration of the close-fit and poor-fit hypotheses. When RMSEA is less than or equal to 0.05, the close-fit hypothesis is not rejected, and when it is greater than or equal to 0.1, the poor-fit hypothesis is not rejected (Browne & Cudeck, 1993). Browne and Cudeck (1993) recommended that RMSEA values between 0.1 and 0.08 indicate mediocre fit, and values below 0.08 indicate adequate fit, while values greater than or equal to 0.1 should be rejected.

The Hancock and Mueller (2001) coefficient *H* was used to estimate internal consistency and scale the scores for the DASS-21 and MHC-SF scales in this study. This coefficient has been shown to be a better indicator of reliability than Cronbach's alpha. Unlike alpha, which assumes equal weighting of all indicators and calculates construct reliability based on their weights (Brunner & Süß, 2016), coefficient *H* takes into account the different factor loadings of the items. It creates a scale that is optimally weighted, with each item contributing varying amounts of information to the overall scale score. Consequently, coefficient *H* yields more accurate estimates of reliability compared to Cronbach's alpha. Similar to Cronbach's alpha, an H value above 0.70 indicates acceptable factor reliability (Hancock & Mueller, 2001).

Robust maximum likelihood (MLR) and full information maximum likelihood (FIML) estimations were used in all analyses using Mplus (Muthen & Muthen, 2010). MLR is robust to skewed data, which is to be expected when measuring wellbeing and depression and anxiety and its related factors in a non-clinical sample. The MLR estimation method was used, where parameter

and standard error estimates were corrected for non-normality (Muthén & Muthén, 2009). Further, the FIML estimation method was employed in Mplus to handle missing data.

3.9 Qualitative Data Analysis

A six-phase thematic analysis approach proposed by Braun and Clarke (2006) was used to analyse the data. This six-phase thematic analysis, as described in Chapter 4, consists of (a) familiarisation with the data through transcription, reading, and re-reading while taking notes; (b) noting of interesting features and coding in a systematic fashion; (c) grouping the codes into themes; (d) reviewing the themes for relevance as they related to the initial coding and overall emerging themes; (e) clearly defining and naming the themes; and (f) finally describing the results. Once all participant responses were transcribed, they were uploaded into the NVivo 12 software program. In addition to interview data, open-ended survey answers were also analysed thematically following the same six-phase approach. The initial data analysis steps involved transcribing the Arabic audio and translating participants' responses into English. Relevant information within the scope of the study was then identified in the transcripts to extract key insights, which were subsequently categorised according to the framework and emergent theme.

3.10 Rigour of the Qualitative Study

In qualitative research, rigour signifies the meticulous measures applied to affirm the trustworthiness and credibility of the study's methods and findings (Amankwaa, 2016; Morse et al., 2002). The rigour of this study was ensured following a prudent course of strategies that focused on two integral aspects: inter-rater reliability and the credibility of findings (Korstjens & Moser, 2017). This section sheds light on these strategies, articulating how each enhances the rigour of the qualitative investigation.

3.10.1 Inter-rater Reliability

The rigour and credibility of the data analysis process was reinforced through the use of inter-rater reliability—a key qualitative research concept. This was achieved through an inter-rater

reliability assessment conducted in collaboration with two Arabic-speaking PhD colleagues specialising in the education field to ensure the robustness of qualitative data analysis.

Chosen for their proficiency in Arabic and expertise in education, they were essential for accurately interpreting qualitative data gathered from interviews conducted in Arabic within the Saudi Arabian context. Their academic background, familiarity with qualitative research methods, and shared cultural understanding of the study population's context ensured nuanced interpretation in qualitative analysis. Their specialisation in education validated their suitability for the inter-rater reliability assessment process, contributing to the credibility and reliability of the qualitative data analysis in this study focused on mental health, wellbeing, and student achievement during the COVID-19 lockdown in KSA.

Inter-rater reliability refers to the extent of agreement between two or more independent coders when interpreting and coding qualitative data (Gwet, 2014; Tinsley & Weiss, 2000). As Cole (2023) argued, implementing inter-rater reliability methods can enhance the transparency and consistency of qualitative case study data analysis by ensuring the development of robust codes and constructs from raw data. By involving multiple coders, the aim was to minimise potential biases and subjectivity, thus elevating the dependability of the study's findings (Burla et al., 2008).

In this process, a randomly selected data segment, a 10-minute transcription from an interview was shared with the partnered colleagues. These colleagues coded the transcription independently and compared the results to evaluate the level of agreement between interpretations Agreement or disagreement on each instance was assigned a score. For instance, a score of 1 was given when both colleagues concurred with the researcher's code, whereas disagreement from one resulted in a score of 2. This scoring process was repeated for the entire transcription, with the cumulative scores being converted to a percentage of total coding instances. The established goal was achieving an agreement rate of 75% or higher. Following this method enabled the assessment of compatibility between coding approaches and further enhanced the rigor and trustworthiness of the qualitative analysis. While the established goal was to achieve an agreement rate of 75%, the

actual rate reached was 70%. Although slightly below the targeted threshold, this level of agreement is still within an acceptable range and is considered sufficient to ensure reliability in qualitative research (Gwet, 2014). The 70% agreement reflects a substantial level of consistency among coders and demonstrates a strong alignment in coding practices, thereby contributing to the study's rigor.

For instance, it was found that themes coded by Coder 2, such as "Stress related to perceived lack of sufficient learning", corresponded with those from the researcher's coding, such as "Academic achievement: Lack of feedback and motivation". Similarly, the theme "Wellbeing: Family assistance", interpreted by Coder 3, aligned closely with researcher's theme "Wellbeing: Family support". This broader analytical approach allowed for themes identified by Coder 2 and Coder 3 to be mapped onto the principal categories defined by the primary researcher. This comprehensive method accounted for the complexity and nuances of human interpretation and qualitative data coding while ensuring an adequate level of consistency. Ultimately, seven out of ten primary codes matched across all three coders. Consequently, an agreement rate of 70% was achieved, thereby reaching the targeted degree of inter-rater reliability (Gwet, 2014). This approach helped ensure that various perspectives were included and integrated into the analysis, which enhanced the rigour and trustworthiness of the study.

3.10.2 Credibility

Credibility in qualitative research refers to the extent to which the findings accurately represent the participants' experiences and the phenomena being studied (Denscombe, 2017) and involves establishing the trustworthiness and authenticity of the research findings. To enhance the credibility of this study, the findings, identified themes and corresponding quotations were shared with a purposively selected group in KSA, consisting of five middle school students aged 15, 16, 16, 17, and 16 (four females and one male), and three mothers of these students. Although the study initially faced constraints in directly interviewing male participants due to cultural considerations (See Section 3.7, Chapter 3), the inclusion of one male student in this feedback group was justified as part of a strategy to ensure broader representation. This male participant was not directly

interviewed earlier in the study but was included at this stage to capture feedback from a male perspective within the same cultural and age context. These individuals, chosen for their direct experience of the pandemic and from the same cultural context, were given a succinct two-page summary of the findings and themes via email.

The invitation for participation was distributed through popular WhatsApp groups, used by parents and teachers of middle school students in KSA for convenient information exchange. Inclusion in the feedback process was limited to those who expressed interest. They were requested to provide feedback on the representation accuracy of experiences of middle school students during the COVID-19 lockdown. This included whether they found the findings authentic and relatable, and their overall impression of the results.

Participants in this process, consisting of both five middle school students and their mothers, confirmed their agreement and endorsement of the findings. They were also encouraged to offer any additional insights and suggest any necessary modifications, which were reported in Chapter 4, Section 4.8. The use of this approach served to ground the study's conclusions in the firsthand experiences of the participants. This approach for checking the credibility of study findings has augmented the primary themes discovered, grounding the findings in the lived experiences of the participants. It has thereby reinforced the credibility and trustworthiness of the study, demonstrating the research's commitment to accurately representing the experiences of middle school students during the COVID-19 lockdown and the consequent shift to online learning.

3.11 Scope and Limitations of the Study

The scope of this research was deliberately restricted to the geographic location of Saudi Arabia and middle schools in Mecca and Taif. A further limitation in scope of the research was the restriction in the voluntary response sampling of participants who were recruited online for the study. The participants were all of Saudi Arabia nationality, Arab ethnicity, and Islamic faith (which involved daily prayers and reading the Quran), and were between the ages of 10–18 years at

the time of the study. Given that the religious tenets of Islam played a significant role in participants' lives and responses to the challenges of the pandemic, this study's insights may not be applicable to students of differing religious backgrounds. Furthermore, while both genders were included in the quantitative phase, only female participants were involved in the qualitative phase of the study. This lack of male participation restricted the inclusivity of male perspectives during the interviews, and is therefore a limitation of this study.

Chapter 4: Quantitative Results

The purpose of this study was to identify the associations between perceived academic achievement among middle school students and their wellbeing, mental health as indicated by symptoms of depression and anxiety, demographic backgrounds, socio-economic status (SES), and amount of schoolwork during the COVID-19 lockdown in KSA. This chapter presents the quantitative findings emerging from the initial phase of the study, culminating in the development of a model elucidating relationships amongst the key constructs, as detailed in Section 4.3 (SEM result). Those results are depicted in Figure 4.4. The following chapter (Chapter 5) presents an analysis of responses from open-ended survey questions and participant interviews. This part of the study sought to provide interpretations and explanations for the observed quantitative results.

4.1 Study Participants

In total, 497 middle school Saudi students provided information for the quantitative portion of this study. Following data checking and cleaning, as discussed in both Chapter 3 and Appendix D, 96 cases (19.3%) were discarded due to lacking parental consent, exhibiting social desirability bias, or having more than 50% missing responses in the scales and demographic data. Thus, the number of students who participated and were included in the quantitative phase of the study was 401.

As shown in Table 4.1, just over half of the participants were from Mecca city, while slightly under half were from Taif city, with 66 (16.5%) failing to report their city of residence. The gender composition of the sample was well-balanced with the percentage of females (50.3%) only slightly more than males (48.6%) but were not significantly different ($\chi^2(1) = 0.10$, p=0.752, missing = 4)[1]. The average age of participants was approximately 15 years (*mean* =14.70, *SD* = 1.52), with ages ranging from 10 to 18 years. Most students (80.2%, *n* = 288) were aged between 13

[1] Independence of Observations: Each participant's gender was considered independently of others, ensuring that the observations were not related. Expected Frequency: The expected frequency for each category was greater than 5, meeting the chi-square test assumption that each cell should have an expected frequency of at least 5. This was verified by the sample size and distribution, as both categories (male and female) had sufficient counts.

and 15 years, which is consistent with the typical ages of students in Saudi middle schools at between 13 to 16 years (OECD, 2020a). In 2019, there were 784,360 male and 751,519 female students enrolled at middle schools in Saudi Arabia (Statista, 2020), which is fairly consistent with the national gender proportions in this age group of 51% male and 49% female (Statista, 2020). The sample of middle school students participating in this research therefore represented an appropriately proportional cross-section of the population of Saudi middle-school students in terms of gender and age.

Relevant information regarding the SES of the participants' families in the study is shown in Table 4.1. Overall, the participants' parents were reported as being well-educated, as nearly half were reported as having bachelor's degrees, while only a small percentage—2.5% of fathers and 6% of mothers—were reported as having no formal education (see Appendix D). An OECD (2019) report showed that 57% of Saudi adults aged 25–64 had upper secondary education, indicating a notably higher level of education attainment in the broader adult population compared to the participants' parents in this stud, as 41.7% of fathers and 25.6% of mothers in this study were reported as having education levels below upper secondary. Further, only 24% achieved tertiary education, which is significantly lower than the tertiary education levels observed in this study, where 59.3% of fathers and 48.6% of mothers were reported by participating students as having attained tertiary education. This comparison with national averages rather than regional averages is made to provide a broader context of the educational background of the participants' families relative to the general population. National averages offer a comprehensive benchmark for understanding how the sample's socioeconomic status fits into the larger national context, especially when regional data may not be as readily available or might not fully represent the diverse educational backgrounds across the country. Therefore, the students in the study sample came from households with highly educated parents.

Due to the small percentage in the "No formal education" (2.5% of fathers and 6% of mothers) and "Primary or intermediate school education" (6.9% of fathers and 18.4% of mothers)

categories (see Appendix D), the researcher merged the two categories into a single "Primary or intermediate school or lower" category in subsequent statistical analyses (see Table 4.1).

Approximately one quarter of respondents (23.9%, $n = 96$) reported that their household income was 20,000 riyals or more, as indicated in Table 4.1, which is well above the 2018 average household income in Saudi Arabia of approximately 14,000 riyals a month (Holtmeier, 2020). Only a small percentage (2.2%) specified that their income was under 2,000 riyals, as shown in Appendix D, which suggests that low-income households were under represented in this study. Due to this low incidence, the two categories of "Less than 2,000 riyals" and "Less than 5,000 riyals" were merged into one category: "5,000 riyals or less." This data led the researcher to create four categories of income for further statistical analysis (see Table 4.1). Slightly less than one quarter, 21.9% of the total participants, had missing data on household income in the study, which could be a reflection of the students' uncertainty or reluctance to indicate an income amount because they "do-not-know" what to enter (De Leeuw, 2001; Mirzaei et al., 2022, p. 148).

Table 4.1

Demographic Characteristics of Saudi Middle School Student Study Participants

Category	Frequency	Percentage	Valid percentage
		Location	
Mecca	174	43.4	51.9
Taif	161	40.1	48.1
Total valid	335	83.5	100.0
Missing	66	16.5	
		Gender	
Male	177	44.1	48.6
Female	183	45.6	50.3
Prefer not to say	4	1.0	1.1
Total valid	364	90.8	100.0
Missing	37	9.2	
		Age	
10	1	0.2	0.3
11	3	0.7	0.8
12	2	0.5	0.6
13	65	16.2	18.1
14	107	26.7	29.8
15	116	28.9	32.3
16	18	4.5	5.0
17	7	1.7	1.9
18	40	10.0	11.1
Total valid	359	89.5	100.0
Missing	42	10.5	
		Mother's education	
Primary or intermediate or less	89	22.2	24.5
High school graduate	80	20.2	22.0
Bachelor degree	165	41.1	45.3
Master or Doctoral degree	30	7.5	8.2
Total valid	369	90.8	100.0
Missing	37	9.2	
		Father's education	
Less than high school completion	34	8.5	9.3
High school graduate	93	22.9	25.3
Bachelor degree	137	43.1	47.5
Master or Doctoral degree	65	16.2	17.9
Total valid	364	90.8	100.0
Missing	37	9.2	
		Household income	
5000 Riyals or less	34	8.5	10.9
5,000–10,000 Riyals	70	17.5	22.4
10,000–15,000 Riyals	113	28.2	36.1
15,000 Riyals or greater	96	23.9	30.7
Total valid	313	78.1	100.0
Missing	88	21.9	

4.2 Household Composition

The analysis of family composition variables, which included siblings, parents, and extended family member details, showed a significant lack of responses. While 84% (n=341) reported having their father in the family, 96.5% (n=387) withheld information about their mother's presence in the family. Similarly, details about grandparents were not provided by 93.5% (n=375), although a majority, 86% (n = 345), affirmed the presence of uncles or aunts. Considering the significant amount of missing data and the risk of introducing bias, it was determined that these variables should not figure in subsequent statistical analyses. Refer to Appendix D for additional details.

Regarding family structure, 13.9% (n=56) of participants refrained from responding. Likewise, 31.9% (n=128) and 38.9% (n=156) did not offer information about brothers and sisters, respectively, (see Appendix D, Table F.9). A small percentage (10.3%) of participants reported having 7–11 siblings. Considering this, family size was classified into three categories: three or fewer siblings (42.2%), four to five siblings (33.8%), and six or more siblings (24%).

4.3 Perception of Academic Achievement

Students' perceptions of their relative academic achievement (see Table 4.2) suggested that most participants (88.8%) perceived their academic achievement during lockdown to be better or equivalent to that of their peers. This imbalance of perception indicates a potential bias with well over half of participants tending to perceive themselves as performing on par or superior to their peers. Participants perceiving their academic achievement to be lesser than their peers were not well represented in the sample. How participants perceived their academic achievement during the lockdown in relation to their peers is explored further in the qualitative results discussed in the second part of this chapter.

Table 4.2

Perceived Academic Achievement During the Lockdown

Academic Achievement	Frequency	Percentage	Valid percentage
Much better than others	113	28.2	30.9
A bit better	107	26.7	29.2
About the same	105	26.2	28.7
A bit worse	33	8.2	9.0
Much worse	8	2.0	2.2
Total valid	366	91.3	100
Total	401	100.0	

Note. Missing = 35 (8.7%)

4.4 Wellbeing

As shown in Table 4.3, the MHC-SF scale analysis suggested that a substantial portion of the sample were classified as flourishing, because they reported feeling a sense of wellbeing "almost every day" or "every day." However, not all the students in the sample flourished or were classified as moderately mentally healthy during the lockdown. The study found that a smaller number of students were considered to have been languishing, since they reported experiencing a sense of wellbeing "never" or "once or twice" while in lockdown, as shown in Table 4.3.

Table 4.3

Participants' Experience of Wellbeing Using MHC-SF Composite Measure

Wellbeing	Frequency	Percentage
Flourishing	158	41.2
Moderate mental health	184	48.0
Languishing	41	10.7
Total	383	100

Note. Missing =18, 4.4%

4.5 Mental Health

As shown in Table 4.4 and Table 4.5, DASS-21 scale analysis indicated that over three-quarters of students showed no signs of depression or anxiety, suggesting that these students were in the normal group. A smaller group of students reported moderate levels of depression and anxiety.

Further still, a minor portion of students reported severe or extremely severe levels of depression and anxiety.

Table 4.4

Distribution of Respondents by Severity of Depression

Depression	Frequency	Percentage
Normal	312	77.81
Mild	21	5.24
Moderate	37	9.23
Severe	29	7.23
Extremely severe	2	0.50
Total	401	100

Table 4.5

Distribution of Respondents by Severity of Anxiety

Anxiety	Frequency	Percentage
Normal	311	77.56
Mild	35	8.73
Moderate	30	7.48
Severe	17	4.24
Extremely severe	8	2.00
Total	401	100

Table 4.6 presents the overall mental latent health scores, encompassing depression and anxiety, as measured by the DASS-21 questionnaire. This data summarises and underscores the patterns observed in Tables 4.4 and 4.5, which show that most participants experienced no signs of mental health issues and only a small portion reported having severe mental health problems (see Table 4.6).

Table 4.6

Distribution of Severity Levels of Mental Health Issues (Composite Anxiety and Depression) in the Sample

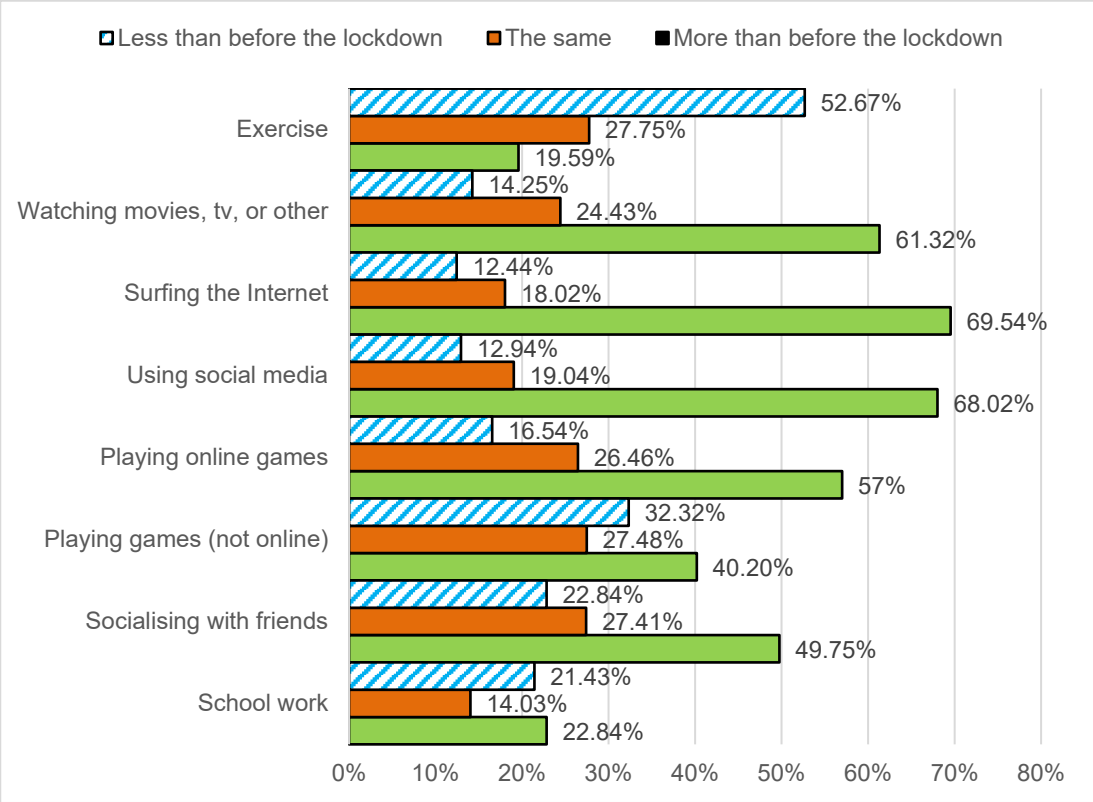
Mental health	Frequency	Percentage
Normal	309	77.06
Mild	28	6.98
Moderate	35	8.73
Severe	27	6.73
Extremely severe	2	0.50
Total	401	100

4.6 Activities During Lockdown

Figure 4.1 depicts students' engagement in various activities during the lockdown period. As would be expected, surfing the internet, online gaming, and using social media increased, while time spent doing schoolwork (64.5%, *n* = 253) and exercising decreased. Interestingly, students communicated online with friends (77.2%, *n* = 249) and played offline games (67.7%, *n* = 266) to the same extent or more often than they did before the lockdown.

Figure 4.1

Participants' Reported Activities During Lockdown



4.7 Summary

Descriptive statistics from this sample suggest that most middle school participants in this study (88.8%) perceived their academic achievement during lockdown to be better than or equivalent to the academic achievement of their peers. Participants indicated that their academic and other activities substantially changed after the lockdown began, during which they engaged with schoolwork in the home environment less frequently than before in classroom learning but

spent more time on social media and gaming. A significant portion of the sample (41.25%) experienced flourishing levels of subjective emotional and psychological wellbeing while only a small proportion of the sample (10.70%) were considered to be languishing. Regarding mental health, most participants in the study (77.1%, n = 309) reported no significant depression or anxiety symptoms during the lockdown. A smaller group (15.7%) experienced mild to moderate levels of depression and anxiety, indicating some degree of mental health duress during the lockdown. Only a small number (7.2%, n = 29) reported experiencing severe to extreme depression and anxiety during the lockdown.

4.8 Hypothesised Model and Model Refinement

In this section, the hypothesised model and model refinement are detailed to provide insights into the Structural Equation Modelling (SEM) used in Mplus to examine the factors associated with students' perceived academic achievement.

4.8.1 DASS-21 and MHC-SF Factor Structure

The structural validity of the DASS-21 and MHC-SDF scales was assessed using CFA (see Figures 4.2 (a) and (b)). The CFA of the initial model, encompassing all indicators alongside depression, anxiety, and wellbeing latent predictor variables, revealed poor fit (χ_2 (76) = 193.67, p <0.001, RMSEA =0.062, CFI = 0.93, TLI = 0.92, SRMR =0.055) for DASS-21, and (χ_2 (74) = 263.76, p <0.001, RMSEA =0.082, CFI = 0.91, TLI = 0.89, SRMR =0.046) for wellbeing, which was not satisfactory (Further details are available in Appendix D). The analysis identified various indicators with multiple factor cross-loadings, low loadings on intended factors, or highly correlated errors. Removing these items significantly enhanced the model fit, importantly increasing the model's reliability for precise insights from the SEM analysis (see Appendix D for details).

In the process of achieving a reliable and valid measure, some items were excluded from the models. On DASS-21, for example the items: "I found it difficult to work up the initiative to do things" and "I felt I was close to panic" were excluded. For the MHC-SF, the excluded items were:

"That our society is a good place, or is becoming a better place, for all people", "That people are basically good", "That you had warm and trusting relationships with others", "That you liked most parts of your personality", and "Satisfied with life". Their exclusion was due to high cross loadings, low loadings on the intended factor, or highly correlated errors (see Appendix D for detailed item removal process).

Consequently, significant enhancement of the model fit was achieved, resulting in improved precision for insights from the SEM analysis. The results of the final CFA comprising of models of the Depression Anxiety Scale (DASS-21) and the Mental Health Continuum-Short Form (MHC-SF) predictor variables with standardised factor loadings are shown in Figures 4.2 (a) and (b). The results showed that all tested factors were reliable with *Coefficient H* values that ranged between 0.74 (Social Wellbeing) and 0.90 (Psychological Wellbeing) on MHC-SF. On the DASS-21, the reliability for Anxiety was 0.86 and for Depression it was 0.89. All factors had good model fit indices.

The DASS-21 and MHC-SF models, as depicted in Figures 4.2 (a) and (b), were a well-fitting model, although it did not pass the chi-square test ($p < 0.05$) (see Section 3.8, Chapter 3). This may be attributed not solely to the large sample size (n=401) (Hox & Bechger, 1998), but also, as suggested by Klein (2016), the model may not be considered the best model due to indicators not making substantial contributions to their conceptualised factors. This is evidenced by the exclusion of certain items, as outlined above in this section, from the instruments due to poor fit, signalling a need for refinement to better cater to younger cohorts (see Chapter 6, Limitation, and Further research sections).

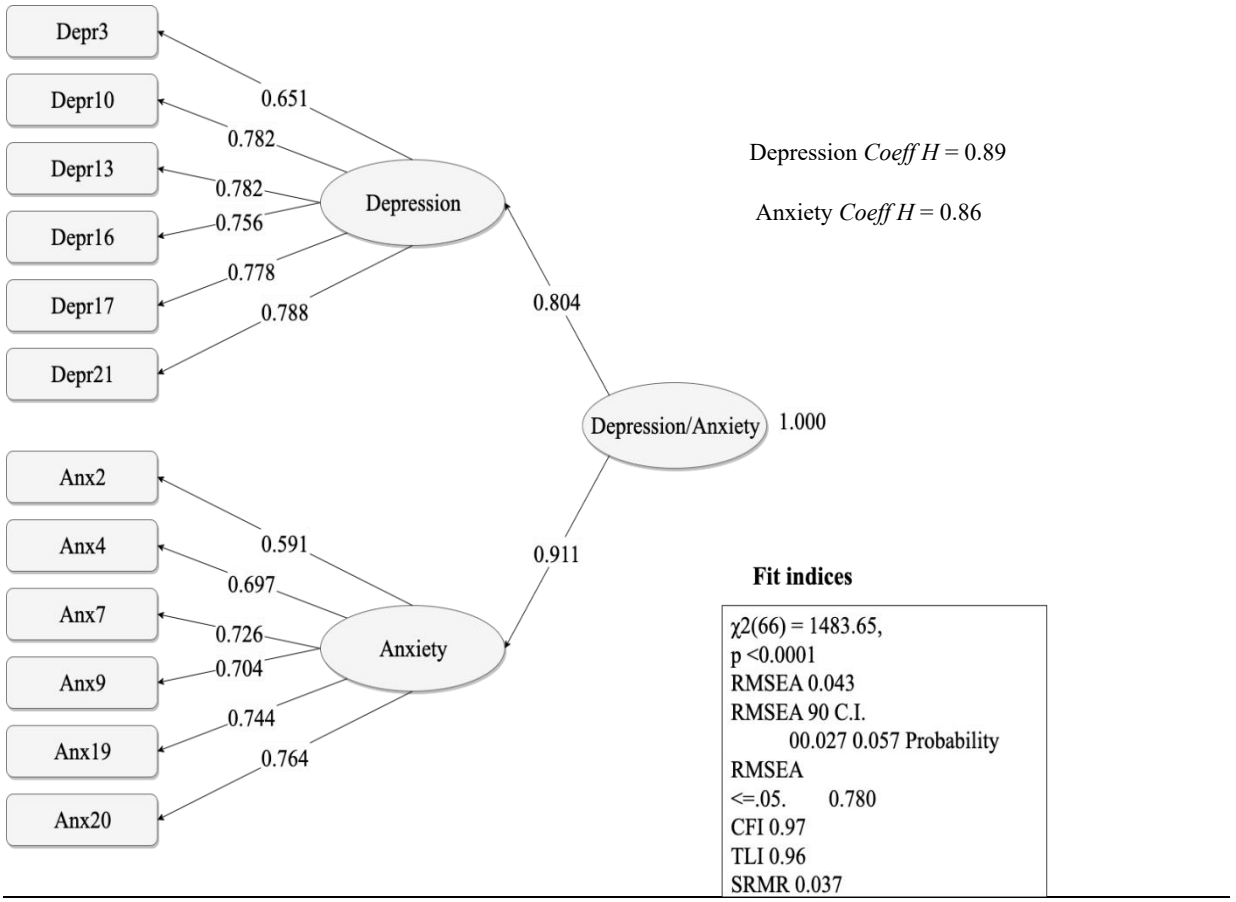
All models had RMSEA values that were less than 0.05, which suggested they were well fitting models; all had a lower RMSEA 90 C.I. equal to 0.000. This indicated that the "close-fit" hypothesis was not rejected for any of them; and all had an upper RMSEA 90 C.I. that was less than 0.10. This indicated that the "poor-fit" hypothesis could be rejected for all of them. For all models, the probability that RMSEA was less than or equal to 0.05 was greater than 90%. The findings

provided good evidence that these measurement models were reliable measures of the wellbeing and DASS-21 constructs. Consequently, these indices suggest a close match between the observed and the predicted models. These satisfactorily fitting models of the DASS-21 and MHC-SF were then added to the larger measurement model that tested the hypotheses. All the factor loadings were greater than a cut-off point of 0.5 (Hair et al., 2010).

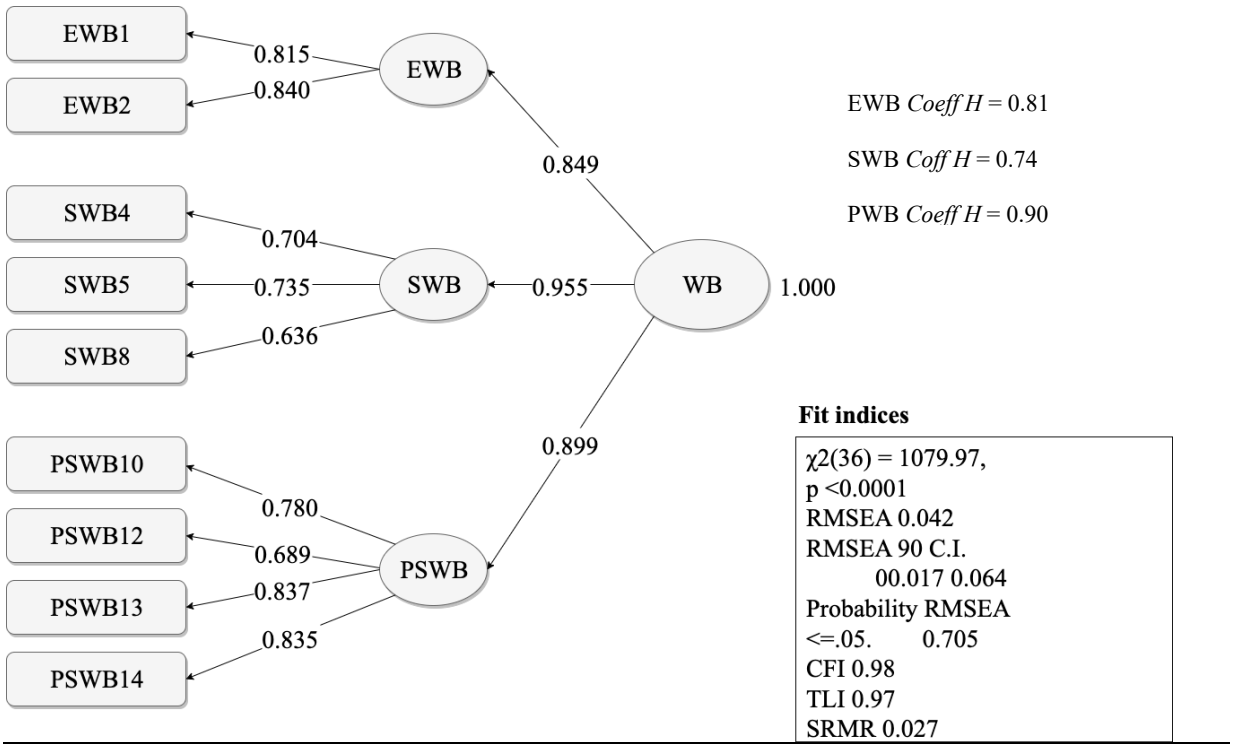
Figure 4.2

DASS21- and Wellbeing Predictors: CFA Models

(a) Standardised Estimates for the Final DASS-21 Factor Model (12 Items, 2 Factors)



(b) Standardised Estimates for the Final Wellbeing Factor Model (9 Items, 3 Factors)



4.8.2 Predictors of Perceived Academic Achievement

The capacity of each factor for predicting perceived academic achievement was tested separately. Specifically, the individual associations between the variables were examined using path analysis and the model's fit to the data was assessed. Only the most significant associations were included in the final model.

Including only the most significant variables in the final SEM model leads to a more efficient model, as stated by Kline (2016), which reduces the risk of overfitting and minimises unnecessary complexity. Focusing on the most significant variables also increases the interpretability of the model by highlighting the most important factors related to the dependent variable. Therefore, self-perceived academic achievement in each of the models was measured using the indicators shown in Figures 4.3 (a) – (d). The path analysis results demonstrated that age, gender, the amount of schoolwork and SES exhibited significant associations with perceived academic achievement (see Figure 4.3 (a)-(c)).

Factor scores for SES were generated (see Section 1.6.1 in Appendix D for details) and SES was subsequently integrated as an observed variable into the final SEM model (as shown in Figure 4.4). This emphasises, as others have found (Chen & Weikart, 2008; Erdem & Kaya, 2021) the theoretical significance of SES as a predictor of subjective academic achievement.

Further, depression and anxiety (latent) grouped as a second-order measure of mental health, and wellbeing factors were identified as significant predictors of perceived academic achievement, supported by good fit indices and with *Coefficient H* values that indicated they were very reliable measures,-as shown in Figure 4.3 (d) and (e). As illustrated in Figure 4.3 (d) and (e), regression models of wellbeing and depression and anxiety had RMSEA values less than 0.05, suggesting that they were well-fitting models. All models had lower RMESA 90 C.I. less than 0.1, indicating that the "close-fit" hypothesis for these models was not rejected. Similarly, higher RMSEA 90 C.I. was less than 0.1. This implies that the "poor-fit" hypothesis could be rejected for all these tested models. The probability that RMSEA was less than or equal to 0.05 was greater than 50%. These findings suggest that wellbeing and depression and anxiety factors were significantly associated with self-perceived academic achievement.

As discussed above (Section 4.2.1 of this chapter), the final models for wellbeing and depression and anxiety were re-specified prior to conducting the SEM (For further elaboration on the process see Appendix D). As shown in Figure 4.3 (a) to (e), the latent variable of wellbeing was found to be the strongest predictor of perceived academic achievement, suggesting it accounted for much of the variance in the models of perceived academic achievement. Still, it only explained 13% of the variance.

The latent variable of depression and anxiety was the next strongest predictor, accounting for just 7.6% of the variance in perceived academic achievement. While weaker than these factors, demographics were still a significant predictor of perceived academic achievement, as illustrated in Figure 4.3 (a), which explained 5.8% of the variance. These R-square values and standardised coefficients (see Figure 4.3 (a) to (e)) were overall low, suggesting the presence of other factors

beyond those captured in the final SEM model that may be associated with perceived academic achievement outcomes.

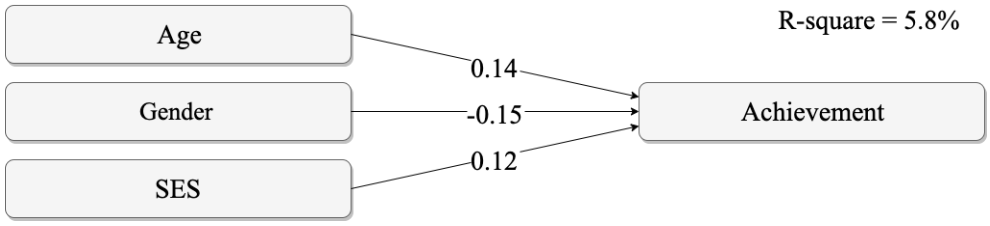
The subsequent qualitative analysis identified additional factors, such as self-regulation behaviors among students, which were not measured in the quantitative analysis but could potentially impact academic success, as supported in studies by Tee et al. (2021) and Biwer et al. (2021) (see Section 5.2.5.2, qualitative study).

Careful consideration of data constraints and a holistic approach are essential for exploring these varied factors and achieving a comprehensive understanding of academic achievement within the studied population. Furthermore, as shown in Figure 4.3 (d) and (e), the regression models did not pass the chi-square test ($p < 0.05$) (see Section 3.8, Chapter 3 for details).

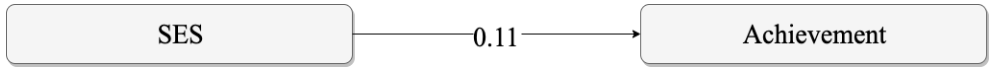
Figure 4.3

Predictors of Perceived Academic Achievement

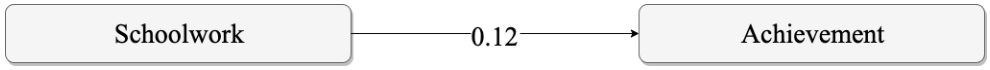
(a) Demographic Factors with Perceived Academic Achievement



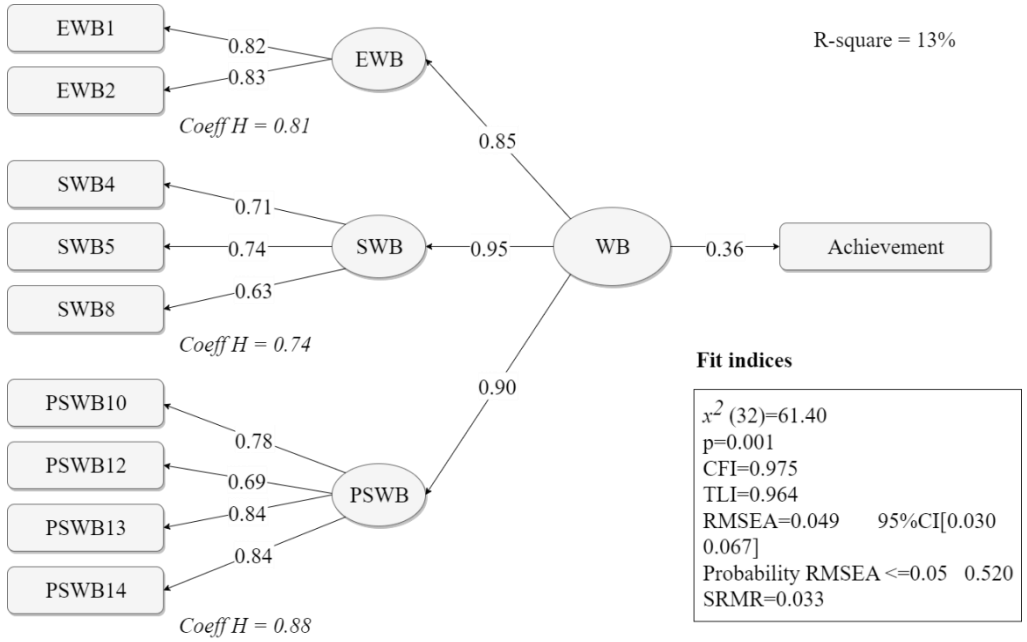
(b) SES Factor Score with Perceived Academic Achievement



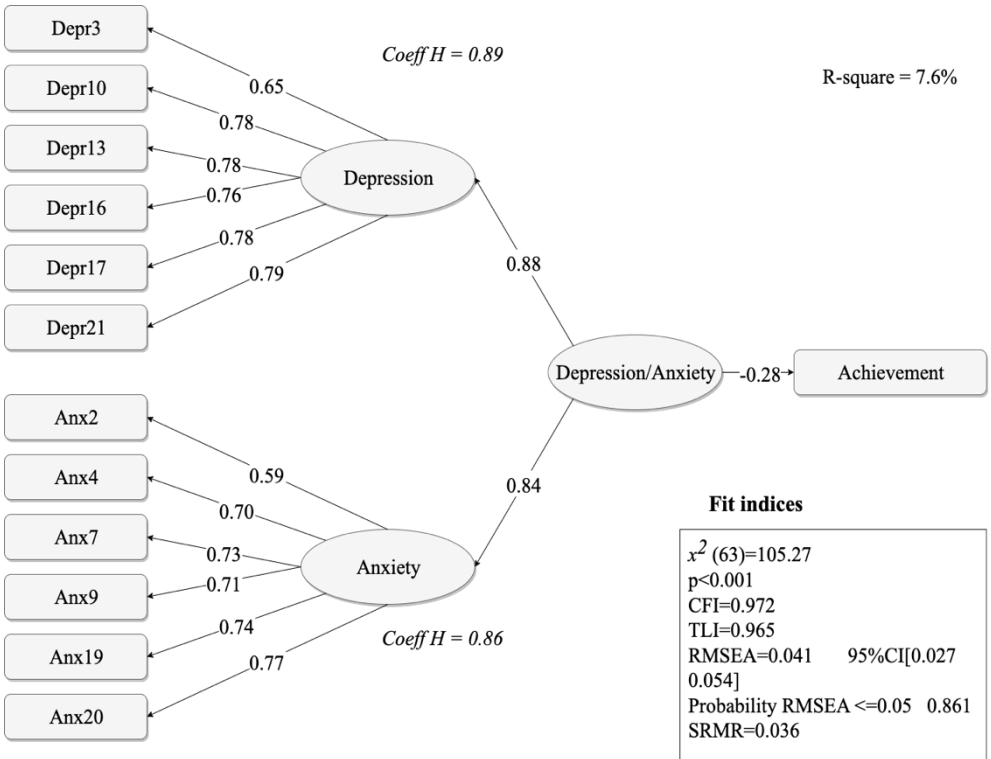
(c) School Work with Perceived Academic Achievement



(d) Wellbeing with Perceived Academic Achievement



(e) Depression and Anxiety with Perceived Academic Achievement



While the second-order measure of mental health, age, and schoolwork variables showed a significant association with academic achievement when assessed individually via path analysis (bivariate, as depicted in Figure 4.3), their significance did not hold when their effects were analysed together in the context of other variables (multivariate, as in the SEM model shown in the subsequent section in Figure 4.4). This phenomenon is not uncommon in quantitative research and is often due to the complex, multifactorial influences on the outcome being studied as corroborated by Lutz and Eckert (1994) and Shifrer et al. (2011). The p-values for the estimated parameters are detailed in Table F.18 in Appendix D.

As described in Appendix D, the findings from the Multinomial Logistic Regression (MNLR) analysis aligned with the observations from the path model (presented in the following section) as the predictors identified in the SEM analysis remained significant in the MNLR context, reinforcing the robustness of the SEM model. This supports the choice to treat "perceived academic achievement" as an interval variable in SEM.

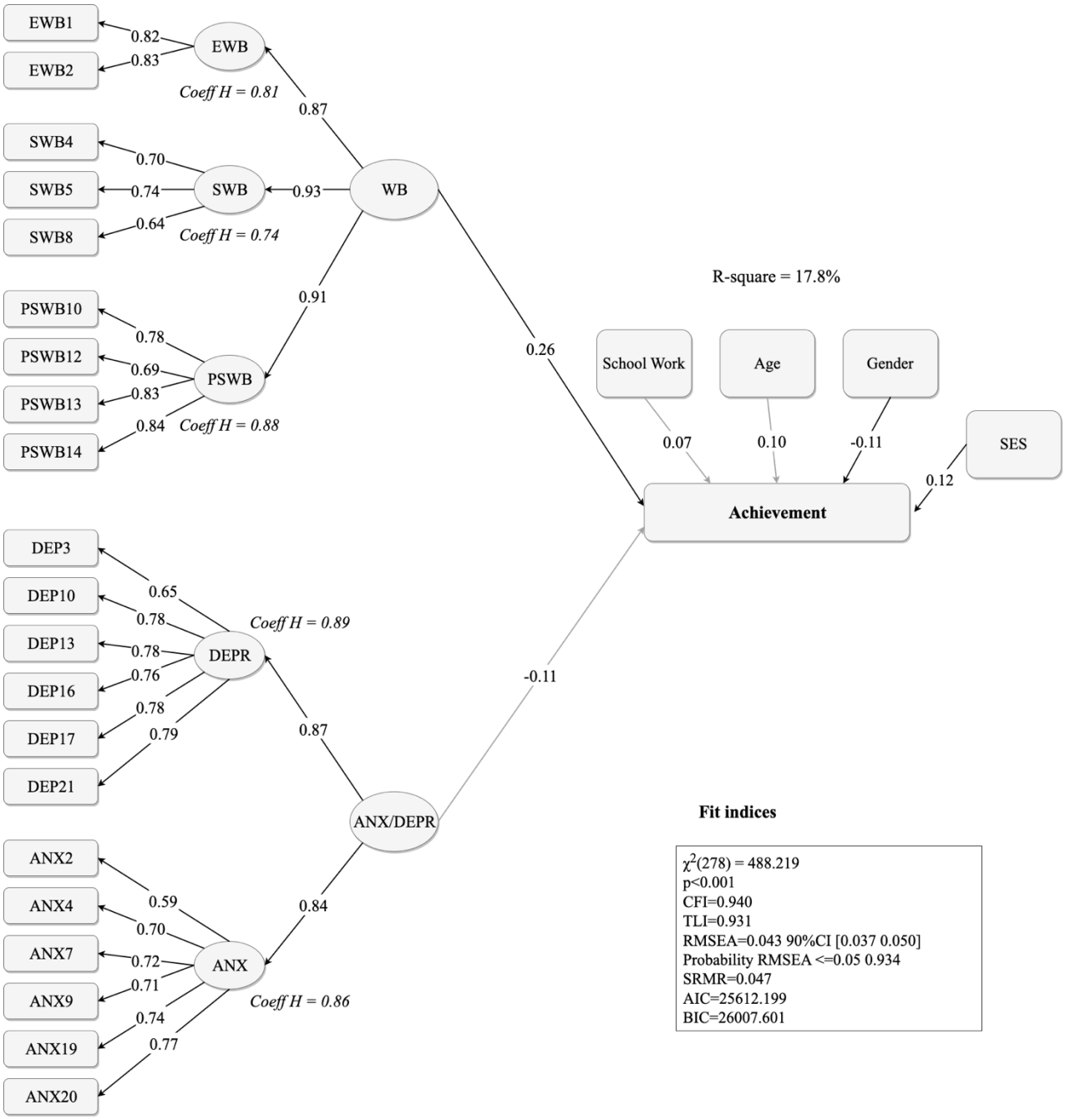
Based on the outcomes of the data preparation and model refinement process, the final SEM model, with its satisfactory fit indices and statistical reliability, was employed to address the research questions proposed in this study. The subsequent section presents the comprehensive results and interpretations of the final SEM analyses.

4.9 SEM of Factors Associated with Perceived Academic Achievement

The hypothesis that wellbeing, depression and anxiety, demographic factors, SES, and the amount of schoolwork all contributed to perceived academic achievement was tested using SEM. The SEM analysis revealed that the direct effects of depression and anxiety, the frequency of schoolwork involvement, and age on perceived academic achievement were not significant, whereas the students' subjective wellbeing, gender and SES positively correlated with their perceptions of academic achievement.

Figure 4.4

SEM Model: Factors Associated with Academic Achievement During Lockdown



Note. The black-coloured paths in Figure 4.4 indicate significant associations (p < 0.05), while non significance is indicated by the grey paths.

As show in Figures 4.4, the fit indices suggested that it was a well-fitting model; however, it did not pass the model chi-square test. Further, the slightly suboptimal CFI and TLI values, which

were below the recommended threshold of 0.95 (Hu & Bentler, 1999), can be attributed to the model's complex nature and larger structure (Cheung & Rensvold, 2002; Hair et al., 2010). When dealing with a large number of variables in a model can make achieving a good fit more challenging, as noted by Klein (2016), underscoring the need for more parsimonious models. The final model, comprising 26 observed variables with a sample size of 401, was deemed to provide an acceptable fit considering the model complexity. Despite falling short of the "excellent fit" mark, the CFI and TLI values were above 0.9—deemed indicative of a good model fit (Klein, 2016).

A significant and positive effect of subjective wellbeing on students' relative subjective academic achievement was found ($\beta = 0.26$, $p = 0.001$), indicating that wellbeing was associated with better self-perception of academic achievement. This implies that students with higher levels of subjective wellbeing tended to rate themselves as achieving better than their peers. In contrast, and not as expected, the depression and anxiety factor did not have a significant predictive effect on self-perceived academic achievement. Also contrary to expectations, the frequency of schoolwork involvement was not a significant predictor of perceived academic achievement. Regardless of whether students reported doing more, less, or the same amount of schoolwork, students' perceived academic achievement remained consistent.

Across social demographic variables, gender was a significant factor associated with students' self-rated academic achievement ($\beta = -0.11$, $p = 0.018$). Female students generally showed more positive perceptions of their academic achievement, rating themselves higher than their peers, whereas males rated themselves as achieving lower than their peers. Therefore, female gender was associated with higher levels of self-rated academic performance during lockdown. Regardless of gender, age had no significant association with self-perceived academic achievement ($\beta = 0.10$, $p = 0.059$).

The students' SES was significantly and positively associated with self-perceived academic achievement ($\beta = 0.12$, $p = 0.011$), indicating that higher SES (i.e., top quartile) was associated with students rating their academic achievement higher relative to their peers. The strongest predictor of

self-perceived academic achievement were high SES (i.e., top quartile), positive wellbeing (higher than the mean), and being female rather than male.

4.9.1 Conclusion

The results of the study supported the hypotheses that wellbeing, gender, and SES would significantly predict self-perceived academic achievement in Saudi middle school students. In contrast, depression and anxiety, the amount of schoolwork, and age, which were expected to play a role, did not show significant associations with the students' self-perception of academic achievement during lockdown.

The following chapter (Chapter 5) discusses the qualitative results, to shed light on some of the unexpected findings, while exploring the thoughts, feelings, and learning experiences during the lockdown period.

Chapter 5: Qualitative Results

This section reports the qualitative findings of this study from both the open-ended questionnaire items and the semi-structured interviews. Three prominent theories, self-determination theory (Deci & Ryan, 1985), community of inquiry theory (Garrison et al., 2001), and social cognitive theory (Bandura, 1986), which make up the theoretical framework that structured this study, provide an explanatory perspective for the insights derived from the data analysis.

5.1 Open-Ended Question Results

Of the 401 female and male participants who completed the quantitative survey, 389 (97%) participants responded to the two qualitative open-ended questions. The responses to the open-ended questions focused on the best and worst experiences of being in lockdown.

The student responses were categorised into two main groups: “benefits” and “disadvantages” (see Figure 5.1 and Figure 5.3 respectively). The thematic analysis of the responses identified three themes related to benefits, namely 1) family gatherings, 2) religious growth, and 3) personal development. In addition, as shown in Figure 5.1, eight subthemes were associated with these, which were 1) religious connection, 2) quality family time, 3) activities during family gathering, 4) religious observance, 5) enhanced spiritual connection, 6) increased time for religious practice, 7) skill acquisition, and 8) personal growth.

Three main themes were identified regarding the disadvantages, namely 1) sedentary lifestyle, 2) mental health, and 3) new ways of learning. As shown in Figure 5.3, these themes were associated with ten subthemes: 1) reduced physical activity, 2) lack of outdoor activities, 3) depression, 4) fear, 5) loneliness, 6) sadness, 7) stress, 8) difficulty understanding, 9) noisy environment, and 10) reduced engagement.

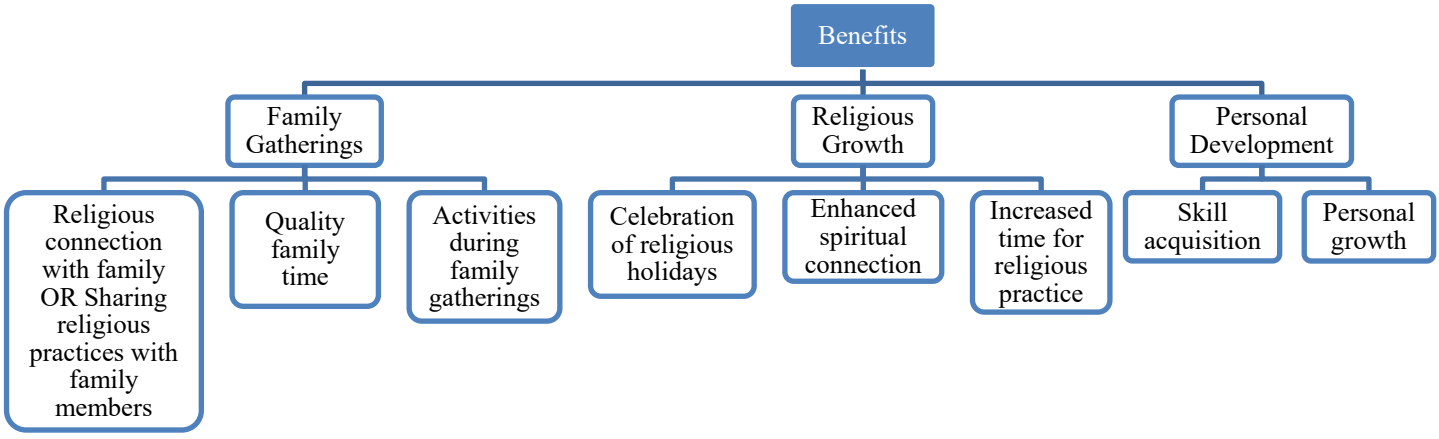
These results demonstrate that although closure of schools and lockdown restrictions during the pandemic resulted in some difficulties and challenges for the students, participants also identified several benefits arising from the unusual circumstances. Participant quotes are annotated with their ages and a prefix, 'F' or 'M', to denote their gender; 'F' indicates a female participant and 'M' denotes a male participant, each given along with their ages. After the gender marker, the number serves as a unique identifier for each participant. Following the identifier, the age of the participant is provided. For instance, in the annotation 'F (012), 14', 'F' indicates the participant is female, '012' is the unique identifier, and '14' is the participant's age.

5.1.1 Benefits of Being in Lockdown

Figure 5.1 shows the themes and subthemes derived from positive responses to the first open-ended item in the questionnaire: "Please tell us what for you has been the best part about being in lockdown."

Figure 5.1

Benefits of being in Lockdown



5.1.1.1 Family Gatherings. During the lockdown period, participants indicated that family bonding became stronger than before the pandemic because families shared more time together in the home and experienced more quality interactions. According to a considerable number of the participants, religion played a fundamental role in enhancing spiritual connections and relationships among family members. Comments that were common among participants included:

We learned a lot of Islamic teachings, which made me feel closer to my parents. (M (011), 18)

I got closer to my family; I liked the Eid [an Islamic festival] experience this year in our house as it was more intimate and inviting. (F (012), 14)

Got closer to my parents than before lockdown by group prayer at home. (M (259), 13)

In addition, the shared celebration of religious activities in the home, rather than congregational worship in the Mosque, was reported by students to have reinforced family relationships and improved their personal growth and development. This beneficial aspect of family worship may have greater significance than might first be perceived because in the Mosque males and females pray in separate rooms, whereas in the home, families tend to pray together – father and mother, adults and children, including extended family members (Al-Khraif et al., 2020; Binmahfouz, 2020). As students stated,

Praying together as a family at home was the best part about being in lockdown. It's a beautiful experience to see my parents and siblings gathered in prayer, especially in Ramadan. (M (075), 18)

We do the five times prayer when its time, as a group with my family members, and read the Quran, especially in Ramadan. (F (070), 15)

Sitting with the parents and reading the Quran together. (M (156), 14)

I got to know my family more and we bonded with each other, especially through collective family prayer. (F (260), 15)

Consistent with social cognitive theory (Bandura, 1986), these participants showed how the social context of the family and the reciprocal relations between family members were major

contributors to their capacity to navigate the lockdown. These relational dynamics were further cultivated through shared experiences and communal activities which, in the cultural context of the participants, often involved religious events or practices. Such communal activities might have provided the family with more opportunities to connect, communicate, and support each other during the lockdown period. This dynamic is a reflection of the principle of reciprocal determinism in Bandura's social cognitive theory (1986), where changes in the environment influence and are influenced by personal and behavioural factors. The subsequent qualitative findings explore whether and how these familial and cultural dynamics might have influenced the students' experiences during the lockdown, potentially impacting their wellbeing and academic engagement.

Within the context of these qualitative insights, the dynamics of Islamic worship within the home emerged as a noteworthy element. This encompasses the establishment in many homes of a dedicated prayer room often regarded as a sacred space where individuals and families engage in acts of devotion (Othman et al., 2015). As described by Mortada (2003) and Othman et al. (2015), the dedicated prayer room in a Muslim family's home is usually placed in a quiet, peaceful area away from main living spaces. This positioning fosters a serene environment for contemplation and spiritual connection. A separate room is chosen to uphold a sacred atmosphere, enabling uninterrupted devotion to prayer and Quran recitation (Othman et al., 2015). This separation underscores the significance of maintaining a dedicated, respectful space for spiritual reflection and connection with God. Moreover, the intricate interplay of familial roles and gender dynamics becomes evident during this sacred practice.

Traditionally, within the context of congregational prayer at mosques, men and boys pray in one room, while women and girls' worship separately in another room (Mortada, 2003; Othman et al., 2015). However, the confinement of lockdown led to a distinct transformation, where family members, regardless of gender, convened in a unified prayer space within the home. In this altered setting, both male and female family members, including parents and siblings, came together in

collective acts of worship (Zatari, 2021). As seen in the quotations above, this change was recognised by several participants in this study as a benefit of lockdown.

Apart from sharing religious activities, some students mentioned that they enjoyed spending time with their families. This suggests that family gatherings reinforced the students' sense of place with family. Many students commented on closer family relationships arising from the lockdown. For example:

> *Sitting with all family members and the strength of bonding and participation from everyone in everything.* (F (032), 16)

> *My family gathering is the best part.* (F (024), 18)

> *Family closeness is the best part.* (F (018), 18)

> *Continuous meeting with the family is the best part.* (M (009), 15)

> *Very close to the family; eating more than one meal together, and carrying each other.* (F (036), 18)

> *Strengthening the relationship between children and parents.* (F (108), 13)

> *The best part of being in lockdown is the experience of regrouping with the family and teaching us the value of the family in one home.* (F (251), 13)

Time spent with family allowed participants to share a range of activities with their families, enhancing their bonding and quality time together. For example, participants commented that:

> *I had time for everything, such as sitting and entertaining with my family.* (F (115) 15)

> *My family participated in recreational games.* (M (065), 18)

> *I played PlayStation with my family.* (F (333), 16)

I also spent most of the time with my brothers, and we created activities such as drawing or board games to avoid getting bored. (F (220), 18)

Student comments indicated that family bonds were strengthened during the lockdown because they had more time available. This surplus of time led to increased interactions between students and their family members, fostering shared activities of a diverse nature, ranging from religious practices, such as group prayers and Quranic reading, to typical household tasks and games, such as cooking together, attending to household chores as a team, and enjoying leisure activities, such as playing board games or watching movies together.

Studies from other countries in the Persian Gulf region had similar findings. For instance, Youssef (2021) found that conditions during the pandemic in the United Arab Emirates had been conducive to the strengthening of family bonds, with lockdown facilitating more time for communication and interaction and leading to closer family relationships. Likewise, Alfawaz et al. (2021) found that the strength of family bonding among a group of Saudi university respondents served as a coping mechanism during the lockdown, which was instrumental in maintaining mental wellbeing and mitigating the risk of self-reported anxiety and depression. Similarly, Winkel et al. (2023) found that in a group of Saudi female university students, the relationship with their families was the most important source of support for wellbeing in mitigating sleep disturbances, anxiety, and feelings of social isolation during the pandemic. Thus, the results of this current study regarding the importance of family gatherings are consistent with other studies focusing on the same phenomenon, and this demonstrates the significance of family relationships, quality time, and sharing activities with family during the lockdown.

These results suggest that an increase in quality family time was generally beneficial for family cohesion and the overall wellbeing of its members. This is consistent with suggestions by Prime et al. (2020), who highlighted the positive effect that a family's bonds could have on the emotional states of children and adolescents amidst the pandemic. Prime et al. (2020) discussed the

coping strategies that could be employed by families, emphasising their adaptive capacity in effectively addressing the challenges posed by the pandemic through mutual support, while noting the importance of considered the cultural and religious contexts of belief systems within the family. For these students in KSA, the deeply ingrained cultural values that prioritise and strengthen family ties, along with prevailing religious practices played a crucial role in safeguarding wellbeing during the pandemic challenges.

5.1.1.2 Religious Growth. Many participants reported spending more time on religious activities during the period of lockdown, and suggested that the consequent personal religious growth was a benefit during this period:

> *I had time to memorise a part of the Holy Quran, and learn more religious matters.* (F (371), 18)

> *Reading a lot of the Quran.* (F (329), 13)

> *Dedication to worship and reading the Quran.* (M (359), 14)

> *Having plenty of time to read the Holy Quran.* (M (377), 15)

Religious growth was an outcome of religious activity that included the amount of time devoted to religious practice, the celebration of religious holidays during lockdown, and an enhanced spiritual connection.

In terms of the celebration of religious festivities, participants expressed their pleasure and the benefits acquired from participation in traditional religious customs and rituals during the lockdown period. Students reported their strong enjoyment of the experience:

> *I loved the preparations for celebrating [the religious ceremony of] Eid and receiving Eid clothes.* (F (021), 11)

> *I loved the experience of making Ramadan and Eid decorations.* (F (063), 14).

Some students reported a deeper connection with their faith. Indeed, they felt closer to God while engaging in more religious practices such as group prayer and reading the Quran, practices that they engaged more deeply with during the lockdown:

Thank God, during the lockdown we got closer to God. (F (088), 15)

The best part is that I became a person who maintains my prayers more than before the lockdown. (M (286), 18)

Time to get closer to God by more worshipping. (M (266), 13)

Engaging in more worship than before the lockdown. (M (039), 15)

5.1.1.2.1 Religious Faith as a Coping Mechanism. Participants' responses suggest that Islamic religious practices during the pandemic lockdown provided a form of spiritual support for some participants by instilling a sense of calm and focus in their lives, enabling them to cope with adversity and enhancing their wellbeing. This was well articulated by students, who said:

They [prayers] leave me feeling calm and spiritually inclined to focus on my studies. (F (239), 15)

I was able to get closer to God, and that made me understand the value of everything and become a more thankful person. Before the lockdown, I was often complaining about even the simplest things. (F (087), 14)

Getting closer to God and engaging in more worship than before the lockdown has brought me relaxation. (M (039), 15)

I was able to focus and devote more time to my prayers and reading Quran. It made me calmer and also stronger. (F (355), 15)

Through dedicating more time to the conduct of religious obligations and spiritual mindfulness, students reported they found solace, tranquillity, and comfort in prayer that contributed to their wellbeing and enabled them to cope better with the challenges they faced. In this sense, as has been suggested by Algahtani, Hassan, et al. (2021) and as was the case with the current sample, the students' quality of life improved because of the increased social relationships between family members, and the religious practices and celebrations they shared. The results suggest that religious growth, as part of the students' spirituality may have influenced students' wellbeing because shared religious activities may have contributed to an increase in family cohesion, which in turn fostered the students' mental health.

A recent study in Ireland by Bamford et al. (2023) revealed the importance of religion in adolescents lives and its link to positive wellbeing. They found that adolescents from families where religion was deemed important reported higher wellbeing compared to their peers from families where religion was not similarly valued. However, the distinction across different religious groups became insignificant when factoring in family activities. Concurring with Bamford et al's (2023) findings, the participants' responses frequently linked the practice of their faith to their wellbeing during lockdown. This underscores the potential significance of religious practices and in promoting student wellbeing during challenging periods.

Other research has suggested that religious faith might promote wellbeing. Cosmas (2020) conducted a study to determine the impact of the coronavirus pandemic on Malaysian university students. The study examined the effects of coping skills and religious faith on uplifting happiness among students during the initial 14-day lockdown period. The findings indicate that students' coping skills contributed significantly to their happiness, and religious faith also played a key role in developing inner strength that helped students cope with unexpected circumstances. Likewise, the study conducted by Iswanto et al. (2022) examined the impact of Islamic religious beliefs on Muslim students in Malaysia during the COVID-19 pandemic. They found that a higher level of Islamic religious beliefs was associated with lower levels of depression, with prayer and other

religious activities being particularly important in reducing the potential negative effects of the pandemic on mental health (Iswanto et al.,2022). In alignment with the findings of Cosmas's (2020) and Iswanto et al. (2022), participants in this research confirmed the value of religious faith as a coping strategy. Islamic practices offered spiritual support, cultivating tranquillity amid challenges. These responses emphasise how religious activities foster wellbeing and family unity, showcasing the importance of spirituality in enhancing overall wellbeing during difficult times. This correspondence with other findings underscores the essential relationship between religious faith, coping mechanisms, and wellbeing.

5.1.1.2.2 Religious Practices and Learning. In addition to providing a support mechanism to assist students in coping with hardship, the beneficial influence of religious faith and practice had also been found to support academic effort and performance in earlier studies, such as that of Philip et al. (2019), which found that religion had a beneficial effect on academic performance among university students. Among studies of the age group considered here, Horwitz (2021) explored how religious commitment among adolescents correlated with short and long-term academic outcomes. The study suggests that adolescents with stronger religiosity may achieve better grades and pursue higher education levels, supporting the value of religious practices in an educational setting. It is evident from the following quotes that prayers and other religious activities were perceived as beneficial factors in students' support and learning systems during the lockdown:

> *Reading the Quran and praying supported me during the pandemic, making me patient, especially with the change in studying mode. It helped me stay motivated in my studies and encouraged me to continue learning.* (F (377), 18)

> *Amidst the chaos of the pandemic lockdown, religion and spirituality were as guiding lights, providing us with the strength to overcome.* (F (364), 18)

The recitation of the Quran, a practice of profound spiritual significance, assumed a renewed prominence for students and their families during the pandemic lockdown. As seen in the quotations above, participants described the solace and tranquillity derived from engaging in the recitation of Quranic verses. This practice not only deepened their connection with their faith but also fostered a sense of inner calm and contemplation. These observations are corroborated by a study by Ting et al. (2021) which explored how individuals, including religious believers, responded to the COVID-19 pandemic. The study found that religious expression, including practices such as reciting religious texts, had a significant negative relationship with stress levels among different religious groups during the lockdown period.

The benefits of these religious practices, highlighted by participants in this study such as those shared by F (377), align with self-determination theory (Deci & Ryan, 1985). Specifically, the practice of religion provides opportunities for competence development as learners engage with religious texts, simultaneously addressing needs for autonomy and relatedness. Their engagement with religious texts may enhance feelings of competence, and their decisions to turn to these practices might reflect autonomy. Additionally, the shared experience of these activities within families could foster a stronger sense of relatedness, fulfilling vital needs for emotional and psychological wellbeing. These elements may have aided in coping during the lockdown, potentially enhancing students' wellbeing and academic performance.

The results, therefore, show that the participants in this study relied on faith as part of their coping strategies. Religious practices and faith are consistent with Saudi core social values and culture which, as Hammad et al. (2023) pointed out, is heavily influenced by Islamic concepts of supplication, fasting, patience, mindfulness, and positivity in the face of adversity, such as in the case of the pandemic lockdown.

Alsolais et al. (2021) undertook a comprehensive examination of the perceptions of risk, fear, mental health status, and coping strategies among Saudi student nurses during the COVID-19

pandemic. Religion emerged as a prevalent and influential coping mechanism, with almost half of respondents acknowledging its role. The study elucidated that while the risk perception and fear of contracting COVID-19 were modestly present, the prevalent practice of religion provided a resilient anchor for these nurses, aiding in their mental health. This study emphasised the transformative role of religious faith in bolstering coping strategies amidst adversity, and this resonates with findings from this study of students' reliance on faith.

Alghamdi et al. (2022) delved into the realm of perceived stress levels and coping strategies within the Saudi Arabian population in response to the pandemic. Their exploration revealed a complex interplay between socio-demographic variables, health factors, and coping mechanisms, collectively influencing stress levels. Their exploration brought forth a nuanced relationship between positive (adaptive) and negative (maladaptive) coping mechanisms and how they influenced stress levels. Positive coping mechanisms, such as positive reframing and turning to religion, served to alleviate stress levels, reflecting their adaptive nature. Contrarily, negative coping mechanisms, such as venting and self-blame, were associated with increased stress levels, demonstrating their maladaptive tendency. This balance encapsulates how coping mechanisms, both adaptive and maladaptive, collectively impact an individual's stress level. This insight aligns with the nuanced interplay recorded in this study where participant responses detailed a range of ways their religious practices and faith, shaped their coping strategies, underscoring their role in managing stress and promoting mental resilience among the participants:

> *Focus and dedication to prayers and reading the Quran resulted in feeling calmer and stronger.* (F (355), 15)
>
> *Getting closer to God furthered my understanding of life's value and fostered gratitude.* (F (087), 14)
>
> *In the face of pandemic-induced fear, solace was found in faith, providing sustenance through the ordeal.* (M (213), 19)

These findings underscore the significant role of religion and spirituality as sources of strength and coping strategies during the pandemic lockdown. Moreover, the studies by Alghamdi et al. (2022), and Alsolais et al. (2021) shed additional light on the intricate relationship between religious practices, faith, and coping strategies within the Saudi context. As evidenced by participants' responses, a distinct alignment becomes apparent between the empirical findings and the qualitative insights derived from the lived experiences of the participants. The enduring threads of religious faith, deeply embedded within Saudi culture and society, played a crucial role in shaping coping mechanisms and promoting wellbeing during the pandemic lockdown.

5.1.1.3 Personal Development. The lockdown period also allowed students to focus on self-development, including skill acquisition and personal growth. Many students reported learning new skills, such as cooking, sewing, and learning new languages:

I learned to cook. (F (086), 16)

I learned to sew. (F (209), 18)

I learned new languages. (F (038), 18)

I grew my talent and my English language. (F (049), 15)

The lockdown period provided some students with the time and space to engage in activities that they may not previously have been able to do. For instance, students shared statements such as,

I became more patient, managed my affairs, learned to manage more tasks, read more books. (F (102), 18)

I learned to reduce unnecessary expenses. (M (016), 14)

Home quarantine taught me to eat healthy. (M (003), 16)

I became more involved in reading novels and stories. (M (314), 14)

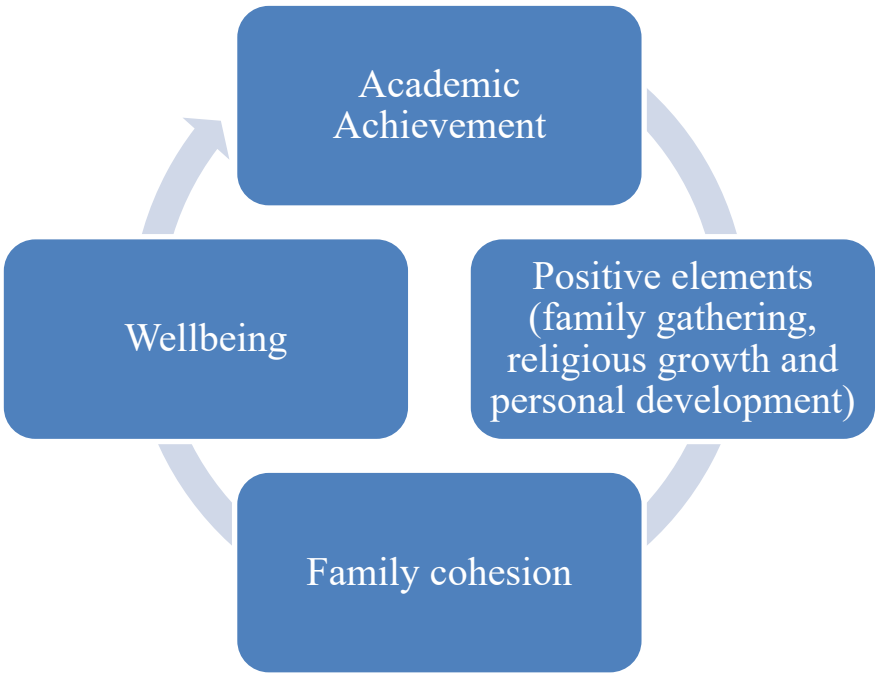
These findings align with findings from the research conducted by Algahtani, Alzain, et al. (2021) during the pandemic. They found that individuals in a Saudi community engaged in various self-development activities during the lockdown, such as learning new skills, pursuing hobbies, and exploring personal interests. The initiative to build new skills, manage time, and engage in personal development activities indicates a heightened sense of autonomy and competence, which are key constructs in self- determination theory. This underlines the potential for adaptability inherent in such difficulties.

5.1.1.4 Summary of Advantages. According to survey participants, family gatherings, religious growth, and personal development impacted the students' wellbeing. Family, religion, and personal development led to increased social cohesion and family support in the students' home environment where they shared common values and beliefs, norms, and religious practices, all of which combined to contribute to student wellbeing.

The interconnectedness of family gatherings, religious growth, and personal development, along with their suggested impacts on student wellbeing and academic achievement, can be better understood through a cohesive rationale, as presented in Figure 5.2. As shown, the positive elements of the lockdown experience allowed greater family cohesion and meaningful engagement in religious activities, both of which enhanced wellbeing. High levels of wellbeing in turn potentially supported a positive sense of academic achievement, as suggested by previous research findings which have indicated a complex yet generally positive correlation between academic achievement and wellbeing, notably more prevalent among younger students aged 10-14 (Amholt et al., 2020; Bücker et al., 2018).

Figure 5.2

Family Cohesion and Wellbeing Contributes to Academic Achievement



5.1.2 Disadvantages of Being in Lockdown

The study findings also showed that there were some perceived problems and challenges associated with the lockdown. All 389 participants who answered the first open-ended question also responded to the second question. Therefore, the number of responses in this section matches that of section 4.5.1. Figure 5.3 shows the themes and subthemes that emerged in students' responses to the item: "Please tell us what for you has been the worst part about being in lockdown."

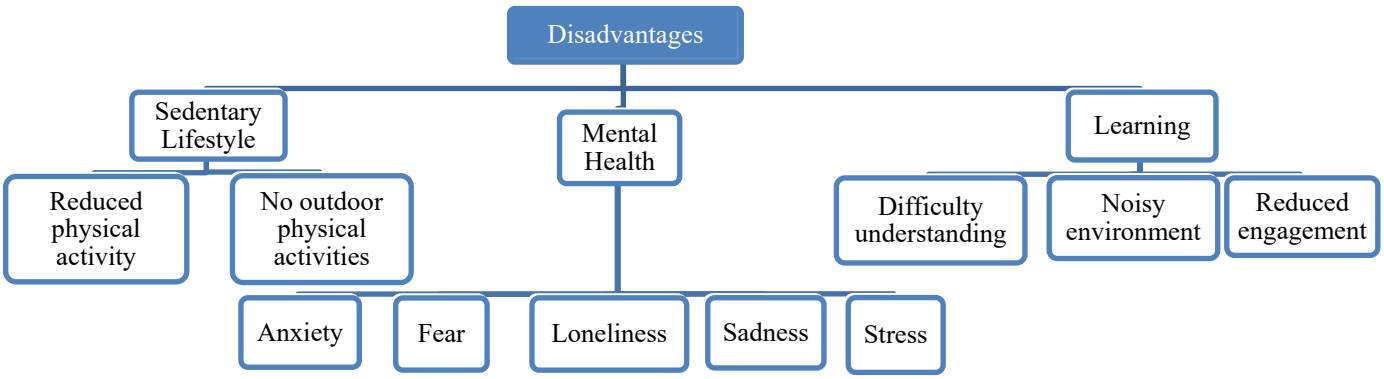
The three main disadvantages of being in lockdown described by the students responding to this item were having to assume a sedentary lifestyle (e.g., reduced physical activity and lack of outdoor activities), leading to a negative impact on wellbeing; mental health issues (e.g., depression and anxiety) during the lockdown period; and, the challenges of a new way of learning.

Some students reported how the lockdown period negatively impacted their mental health, including feelings of anxiety, fear and frustration, sadness and loneliness, and stress. These issues were assessed quantitatively in this study using the Depression Anxiety and Stress Scale (DASS-21) (Lovibond & Lovibond, 1995), specifically designed to measure anxiety, stress and depression

(Chapter 3, Section 3.5.1.1), with, of these, depression and anxiety measured in this study (Chapter 3, Section 3.7.1.1.3). The dimensions reported in the qualitative study (anxiety, fear, frustration, sadness, loneliness, and stress), although not directly equivalent to the specific items in the Depression Anxiety and Stress Scale (DASS-21), encompass aspects of emotional and psychological experiences that may overlap with the anxiety, stress, and depression dimensions assessed by the DASS-21. The qualitative findings provide insight into the diverse mental health challenges experienced by the participants during the lockdown period, suggesting that some students experienced aspects of poor mental health, although quantitative results did not show a correlation between mental health problems and perceptions of academic achievement.

Figure 5.3

Disadvantages of Being in Lockdown



5.1.2.1 Sedentary Lifestyle. One of the most significant impacts of the lockdown was the impossibility of freely going outside the house, exercising, or playing in an outdoor setting, a practice many students were accustomed to before the lockdown. As reported in the students' responses, the restrictions impacted their ability to undertake active physical exercise, such as running and walking. They spent increasingly more time engaged in sedentary activities. Typical responses provided by the students included:

I spent a lot of time on PlayStation. (M (025), 15)

Children are sitting for long periods playing PlayStation. (M (023), 14)

Electronic games addiction. (M (014), 13)

The increase in sedentary behaviour such as playing video games reported by these students corresponded with a decline in physical activity.

Many students reported the lack of opportunity for outdoor physical activities due to the restrictions was a major disadvantage of the lockdown period. Typically expressed were concerns about:

The lack of sport and outdoor walking. (F (81), 15)

Lack of exercise. (M (317), 14)

Not to freely do exercise. (M (013), 18)

Not moving and going out. (F (007), 14)

Not going out or walking in the gardens. (F (158), 15)

Not going out to school and club. (M (032), 14)

This shift has also been found in other studies. Based on interviews with the parents of teenagers, Andriyani et al. (2021) reported less physical activity and greater use of screens among adolescents during the pandemic. In a systematic review, Kharel et al. (2022) discovered that across 35 countries, children and adolescents were less active and spent more time both on screens and sleeping. Another systematic review by Stockwell et al. (2021) similarly found less physical activity and more sedentary behaviours, including among children, as did a review by Runacres et al. (2021), with the latter noting that the increase in sedentary time was greatest among children under 18.

The change to more sedentary behaviours and less physical activity was reported by many participants in this study as a negative. The negative consequences of a more sedentary lifestyle are recognised in much scholarly research, including pre-pandemic studies such as that of Rodriguez-Ayllon et al. (2019), who report the negative effects on mental health of a lack of physical activity. During the pandemic, the enforced shift to a more sedentary lifestyle has unsurprisingly been found to have had a negative impact on children and adolescents. Runacres et al.'s (2021) review found a correspondence between a more sedentary lifestyle and poor mental health and wellbeing. In a study of Hungarian adolescents during the pandemic, Berki and Piko (2021) found that increased screen time and lower levels of physical activity were associated with higher levels of depression. Further, in an analysis of systematic reviews, randomised controlled trials and large-scale observational studies, Scapaticci et al. (2022) discovered that less physical activity and more sedentary behaviour among adolescents had concerning negative consequences for their physical and mental health. The frequent reporting of less physical activity and a more sedentary lifestyle as a negative by participants in this study is thus supported by other research, suggesting this change was a significant problem during the period of lockdown.

5.1.2.2 Mental Health. Participants in this study reported feeling a sense of fear and anxiety. Students expressed these feelings, often associated with feelings of isolation:

[Being in a] *void that leads to thinking and anxiety.* (M (199), 15)

The feeling of isolation and fear of the future. (M (150), 14)

Isolated and lonely. (F (253), 16)

Participants' feelings clearly conveyed the psychological stress they were enduring, which suggests a negative impact on their mental health:

Intellectual, nervous and psychological stress. (M (029), 15)

Impact on psychological aspect negatively and feeling boredom. (F (031), 15)

Nervousness. (F (195), 15)

In addition to anxiety and fear for the future, participants experienced sadness and tension, as the following quotes demonstrate:

> *Something unbearable is the deprivation of freedom from any human being: tension, sometimes a feeling of distress.* (F (018), 18).

> *Extreme fear*. *Sadness.* (F (219), 14)

> *Very sad and lonely.* (F (042), 14)

As seen in the negative feelings expressed about the enforced sedentary lifestyle discussed above, the lack of activity that was imposed on the students impacted their sense of mental health. A study conducted by Luijten et al. (2021) during the COVID-19 pandemic in the Netherlands shed light on the impact of lockdown restrictions on the wellbeing of children and adolescents. This research specifically examined two representative samples of Dutch children and adolescents, aged 8–18 years, comparing data collected before the pandemic (2018) with data collected during the lockdown month of April 2020. The study's findings underscored the profound implications of lockdown measures on mental health as participants reported significantly worse mental health outcomes during the lockdown, including elevated levels of anxiety and depression.

While previous studies have associated a lack of physical activity with mental health challenges, as noted above, Brooks et al. (2020) identified other lockdown-related factors that influenced mental health in their review of 24 peer-reviewed studies of the consequences of previous pandemics. These included concerns about infection, experiences of frustration and boredom, inadequate supplies and information, financial concerns, and the stigma associated with the quarantine. The review emphasised that the mental health repercussions of the lockdown were mainly attributed to psychological effects, such as heightened anxiety, fear, feelings of isolation, and concerns about the future. These mental and emotional states were also reflected in student

responses in this current study, further highlighting their role in shaping the negative mental health impacts of the lockdown.

The issue of loneliness and its implications have been extensively studied (e.g., Hawkley & Cacioppo, 2010; Khan & Kadoya, 2021; Weissbourd et al., 2021), both before and during the COVID-19 pandemic and in several cultural and demographic contexts. Hawley and Cacioppo (2010) found that loneliness had a wide range of negative consequences for both physical and mental health, and that feelings of loneliness were most prevalent among under-18s. Khan and Kadoya (2021) study in Japan during the pandemic also found that loneliness was more prevalent among younger people, underscoring the relationship between loneliness and physical and mental health. The strong link between loneliness and a range of serious physical and mental health problems is again referenced by Weissbourd et al. (2021), whose study of US adults in 2020 found significant levels of feelings of loneliness, again highest in the youngest cohort, aged 18 to 25, who also experienced the highest levels of anxiety and depression.

These studies reflect the strong relationship between loneliness and adverse physical, behavioural, and cognitive outcomes, including depression, anxiety, fear, poor subjective wellbeing, emotional distress, and suicide ideation, which may be due at least in part to a perceived sense of hyper vigilance for threat and heightened feelings of vulnerability (Holt-Lunstad et al., 2015; Surkalim et al., 2022). Furthermore, there may be a tendency for teens of middle school age, such as those who participated in this study, and young people generally, to be particularly susceptible to loneliness, which has also been found to intersect with excessive social media usage (Mueller-Coyne et al., 2022).

In a collectivist society like KSA where students are accustomed to strong communal interactions, the abrupt transition to isolation induced by the lockdown measures likely triggered heightened feelings of loneliness. Heu et al. (2019) conducted a study of the relationship between individualism-collectivism (IC) and loneliness in five European countries. They found that, contrary to expectations, based on some previous studies, that loneliness would be higher in collectivist

cultures, when considering individual perceptions of IC higher collectivism was related to lower levels of loneliness. In pre-pandemic circumstances, collectivism was found to be a protective factor against loneliness, but the authors noted the risk that the higher ideals for social connection in collective societies might increase risk for loneliness should a gap be perceived between ideal and actual circumstances. Given that the pandemic changed individual circumstances to reduce social contact, it is possible that the greater gap between the ideals of a collectivist society and the reality of the lockdown would increase the risk of loneliness. Conversely, the inherent strong familial and communal bonds found in collectivist societies also provided a unique coping mechanism, as reported by Taniguchi and Kaufman (2022), who found that people in more collectivist societies experienced less loneliness. For the participants in this study, responses suggest that family served as an invaluable life buoy, mitigating feelings of loneliness and providing emotional comfort.

The increased usage of digital platforms during the lockdown may also have been another significant risk factor for feelings of loneliness, although previous research again shows the complexity of this issue. Mueller-Coyne et al. (2022) research during the COVID-19 pandemic, suggested that digital replacement for real-life social contact might not be satisfactory and could potentially intensify feelings of loneliness. Masur (2021) reported that meta-analyses show a small but positive relationship between use of digital communication and loneliness, although also notes the limitations of previous studies and the importance of differentiating between passive and active online communication. Lawrence et al. (2022) found similarly complex and bi-directional results in their longitudinal study, with loneliness linked to later increases in gaming and passive screen time, while engagement in various forms of screen activities, excluding passive screen time, led to subsequent rises in isolation loneliness scores. However, this research took place over two years, and thus was able to consider longer-term effects than those possible for analysis in this study.

Given the strong association between loneliness and poor mental health discussed above, it is noteworthy that in a systematic review of studies examining digital media use and mental health during the pandemic Marciano et al. (2022) found mixed results. While most studies indicated a

negative association between digital media use and mental health, certain aspects of digital communication had beneficial effects. Other research has suggested that the use of social media could support adolescents during the pandemic by reducing feelings of anxiety and loneliness (Cauberghe et al., 2021).

However, other studies have implied that the change to digital interaction may have inadvertently escalated feelings of isolation among students. McKenna-Plumley et al. (2021) suggested that prolonged reliance on digital communication as a substitute for in-person interactions can lead to increased feelings of isolation and loneliness among adults, especially during periods of social distancing and lockdown measures. Further, Marciano et al. (2022) indicated that excessive digital media use could exacerbate feelings of loneliness and stress among adolescents.

In the present study, responses to the open-ended questions did not reveal direct associations between the frequently expressed feelings of loneliness and the use of digital media and communication. Further insights on this complex question are provided by the interview responses discussed in Section 5.2, Student Interviews.

Moreover, loneliness of young people during the pandemic was noted to be widespread and pervasive in many societies due to the closure of schools and isolation of many under government precautions (Cooper et al., 2021; Farrell et al., 2023). Farrell et al. (2023), in a systematic review of 41 international studies of adolescents, found that many reported an increase in loneliness during the pandemic, and that loneliness correlated with poorer mental health and wellbeing. However, they note some contradictory results and the limited geographical diversity of the studies, which were concentrated in Europe, the US and Australia. Among adolescents aged 11-16 in the UK, Cooper et al.'s (2021) findings supported the established relationship between loneliness and poor mental health, while also noting that those who felt close to their parents reported lower levels of both loneliness and mental distress. The importance of connections with family is echoed in this study, where participants reported closer family relationships as a benefit of the lockdown (Section

4.3.1.1 above). However, while they may have acted as a protective factor against some of the negative effects of loneliness and consequent poor mental health, family relationships could not entirely mitigate these students' feelings of isolation, as shown in the feelings of loneliness expressed by some students in their qualitative responses.

As Weissbourd et al. (2021) suggested, young people's vulnerability to loneliness and its effects is particularly evident at critical times in life when their social connections and support structures are transitioning from "inherited family" (parents, siblings) to "chosen family" (peers, friends, relationship partners). Several participants mentioned increased feelings of loneliness, and while they did not directly state that these feelings were due to the lack of in-person contact with peers, this is inferred based on the overarching study findings and the context of the participants' experiences during the lockdown. The disruption of social connections and shifts in support structures from 'inherited family' to 'chosen family' mentioned by Weissbourd et al. (2021) likely contributed to the heightened sense of loneliness experienced by many participants in this study. Despite the absence of direct quotes on this specific point, the broader trends and impacts of social isolation during the pandemic suggest a correlation between the lack of in-person peer contact and increased feelings of loneliness among the participants.

Extreme fear as well as other negative emotions that participants in this study reported have also been discussed in other studies, such as AlAteeq et al.'s (2020) examination of the impact of the pandemic lockdown on high school and college students. Conducting a cross-sectional survey of Saudi Arabian students (aged 13 – 18+) at different levels of schooling including secondary and tertiary, AlAteeq et al. (2020) reported that over half of the participants overall showed at least moderate levels of stress. Participants stated that they often felt stressed, anxious, nervous, and overwhelmed by accumulated difficulties. Most respondents were of high school age, although the minority of university students participating showed higher stress levels than the younger age group. Alkhamees et al. (2020), in their study of the general population in Saudi Arabia, found that between a quarter and a third of respondents reported moderate or severe negative mental health

effects resulting from the pandemic, suggesting that high school students could be at least as vulnerable as adults to mental health difficulties in the period of the pandemic.

While it is important to be cautious about extrapolating the results of this study to other nations and cultural contexts, beyond Saudi Arabia, the experiences of the lockdown concerning mental health appear to have similar results in the different countries where studies about students' anxiety and depression and wellbeing during lockdown have been conducted. For example, Aknin et al. (2022) reviewed multiple international studies on the mental health consequences of the pandemic, considering issues including loneliness, anxiety and depression. They found clear and consistent evidence that these mental health problems became more prevalent during the early stages of the pandemic, although note that the initial increase in mental distress had largely disappeared within a few months.

Given the supporting evidence that both the population in general and adolescents specifically experienced higher levels of mental distress in this period, the feelings of anxiety, fear and loneliness reported by the sample in this study suggest that the pandemic and consequent lockdown had an impact on the mental health of middle school Saudi students, causing some emotional distress. These findings underscore the broader implications of the lockdown measures on the psychological health of adolescents, aligning with similar observations in other studies focused on various segments of the Saudi population and beyond.

The mental health challenges experienced by students during the lockdown resonate with the concepts of social cognitive theory, particularly in terms of observational learning and external/internal social influences (Bandura, 1986). Students' reported feelings of anxiety, fear, and isolation reflect the disruptive impact of the lockdown on their social and cognitive processes. The lack of traditional social contexts and reinforcement mechanisms, as emphasised in social cognitive theory, may have contributed to the heightened mental health issues observed among students, highlighting the need to consider social and cognitive factors in addressing students' psychological wellbeing during crises. These findings underscore the broader implications of the lockdown

measures on the psychological health of adolescents, aligning with similar observations in other studies focused on various segments of the Saudi population and beyond.

5.1.2.3 Challenging Learning Environment. In addition to the emotional distress that the participants experienced, they also reported experiencing cognitive and social difficulties during the lockdown. For example, students stated that during the lockdown:

> [it was] *difficult to concentrate and remember things.* (F (253), 16)

> *Being required to spend longer periods in front of screens has resulted in reduced educational opportunities and hindered [my] learning.* (F (381), 14)

> *I am getting less education and learning during lockdown.* (F (093), 13)

> *Increased school homework, which made it almost impossible to manage time effectively, negatively impacting the ability to focus in my important tests.* (F (083), 15)

These remarks suggest a notable impact of the lockdown on the students' cognitive abilities and their educational attainment. Quotations from students' express difficulties with the amount of screentime, their ability to focus, and the amount of education they received. AlAteeq et al. (2020), in their study of high school students in KSA during the lockdown, noted that secondary school students in particular worried about the effect of the shift to online learning on their grades and future education. In this study, concerns about "reduced educational opportunities" (F (381), 14) and "important tests" (F (083), 15) suggest that participants experienced similar feelings regarding the implications for their future of the disruption in their education.

Walters et al. (2022) also highlighted the negative impact of online learning during the pandemic on concentration, engagement in schoolwork, perceived learning, and self-worth compared to classroom education, especially for those with specific learning difficulties among students aged 11–18 at a secondary education school in Wales. The study also associates the drop in student experience scores due to online learning with poorer mental wellbeing. Concurring with

Walters et al.'s (2022) findings, the responses of the participants further resonate with the challenges of concentration, learning impediments, and time management issues identified. These insights underscore the tangible impact of pandemic-related restrictions on learning outcomes and academic performance, emphasising the need to address these challenges within educational settings.

Students reported that difficulties in understanding the teacher, reduced engagement during on-line lessons, and noisy home environments were negative factors affecting their learning experiences while studying remotely from home. For instance, study participants reported the difficulties they had in fully understanding remote lessons. These included a lack of understanding as well as feelings of boredom and unproductivity:

> [I do] *not understand lessons remotely.* (F (146), 16)

> *Bored sometimes, lack of productivity when doing school duties.* (M (155), 18).

Online tests were particularly challenging due sometimes to a noisy home environment which affected students' ability to concentrate:

> *During my online tests, as all members of my family were at home (which was unusual) and the place was bound by noise, it became difficult to focus on my study or focus on test questions.* (F (151), 15)

These responses suggest that these challenges impacted students' ability to concentrate on the lessons, which undermined their cognitive ability to understand teachers, and possibly reduced their performance during tests. Such findings underscore the complexities students needed to navigate in transitioning to a new learning environment due to the COVID-19 lockdown.

The implementation of remote learning posed significant challenges for educational authorities in Saudi Arabia. These complications primarily resulted from the exigency brought about by the COVID-19 pandemic. In this context, the sudden shift to an online learning platform, a change considered to be one of the most challenging outcomes of the COVID-19 pandemic for this

age group, affected students' cognitive abilities and concerns about educational attainment, reflecting findings of other researches (Commodari & La Rosa, 2021; Elashry et al., 2021; Panagouli et al., 2021). For example, in a systematic review of the academic performance of school students during the pandemic, Panagouli et al. (2021) found variable results, but concluded that in general, the shift to online learning affected most students negatively. Considering upper secondary school students in Italy Commodari and La Rosa (2021) found that most experienced difficulties with organisation, distraction, and mental distress related to workload, including concerns about the impact on their educational future. Further, Elashry et al. (2021) found that adolescents in Egypt experienced high levels of stress during the shift to online learning, and, notably, that stress levels were significantly related to perceptions of this new form of education. Some students in the current study reported comparable feelings of concern about online learning, suggesting that this shift had a significant negative effect on their educational experience during the pandemic.

The effectiveness of the remote learning method largely depended on students' ability to adjust to new means of knowledge acquisition. The challenge of this adjustment has been discussed in other research; for example, Basar et al. (2021) examined the effectiveness of online learning and the challenges faced by secondary school students in Melaka, Malaysia during the pandemic. The study revealed that although students had access to necessary technological tools such as computers or smartphones and internet connectivity at home, their motivation towards online learning was found to be relatively low. Additionally, their ability to collaborate and work in groups was at a moderate level, indicating potential challenges in interactive online learning environments. Moreover, the study highlighted that students valued traditional face-to-face teaching methods, underlining the importance of well-equipped facilities and stable internet connections for effective online learning experiences.

The insights from Basar et al. (2021) align with the challenges faced by KSA students transitioning to online platforms during the pandemic, emphasising the significance of addressing motivational factors, collaborative learning opportunities, and the integration of traditional teaching

approaches in online education. By recognising these challenges and leveraging the findings to enhance online learning strategies, educational stakeholders can foster a more conducive and impactful learning environment for students amidst the evolving educational landscape.

Potential obstacles, such as lack of engagement, inadequacy in understanding lessons, and home environment distractions, might have influenced the academic performance of these students. Chere and Kirkham (2021) found that adolescents from noisier homes reported higher levels of annoyance and experienced hindrances in their home-learning, which was evident in their performance on executive function tasks. Older adolescents from noisier homes seemed to lose the efficiency advantage typically seen with age, and younger adolescents' reaction times were less impacted by accuracy in noisier environments. This suggests that noise levels at home can be detrimental to students' ability to focus and learn effectively. Considering the Chere and Kirkham (2021) study, it is evident that students' learning experiences can be significantly impacted by obstacles such as lack of engagement, difficulties in understanding lessons, and distractions in the home environment. These challenges may have indirect implications for students' academic performance and cognitive abilities in the remote learning context, underscoring the importance of addressing these issues to enhance students' learning outcomes during crises like the COVID-19 pandemic.

Further, the learning challenges faced by students, including difficulties in concentration, understanding lessons, and managing distractions, can be analysed through the lens of self-determination theory. The abrupt shift to online learning during the lockdown posed significant obstacles to students' autonomy, competence, and relatedness needs. Students' adaptation and progression towards overcoming cognitive barriers and educational impediments underscore the importance of meeting their basic psychological needs, as outlined in self-determination theory. By acknowledging the role of internal motivation and external support structures, such as family and cultural resources, in facilitating students' academic coping, self-determination theory provides a

useful framework for understanding the cognitive and motivational aspects influencing students' learning experiences in challenging circumstances.

Mental health issues such as depression, frustration, and a sense of isolation lead to health problems, and a decreased ability to focus on studies. The interaction between lack of physical activity, mental health and cognitive functioning was described well by one student, who described the consequences of her negative feelings:

> *Depression, frustration, and a lack of physical movement have led to health problems and less focus in my studies.* (F (55), 15)

As she described, being confined to the home during lockdown restricted normal outdoor activities and led to more sedentary behaviour, which resulted in frustration and also hampered learning opportunities.

Students reported experiencing cognitive and social difficulties during the lockdown. For example, one student described both reduced cognitive function and feelings of isolation:

> *Difficult to concentrate and remember things* […]. [Feeling] *Isolated and lonely.* (F (253), 16)

This suggests that this participant, like others in this study, experienced poor cognitive functioning during her isolation as a consequence of her sense of loneliness. According to study participants, lockdown and physical movement restrictions during the pandemic were conditions that caused anxiety, fear and loneliness, which affected the students' mental health and their ability to focus on remote schooling.

The Saudi participants' self-reported feelings of emotional distress impacting their mental health and cognitive abilities align with studies such as that of Aknin et al. (2022), discussed above in Section 4.3.2.2, which found significant mental health impacts arising from the pandemic

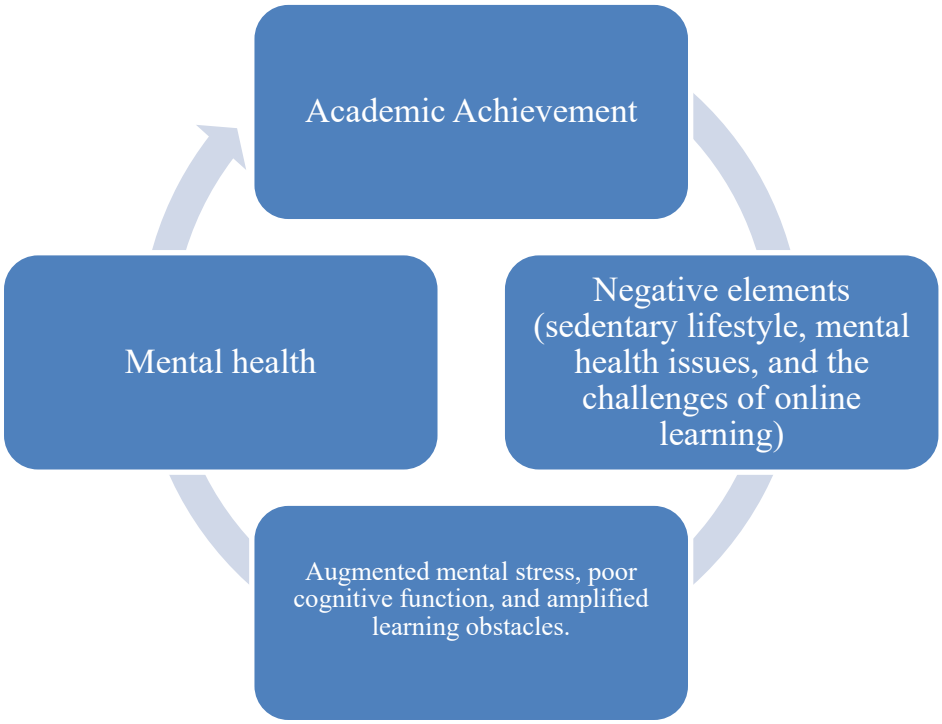
lockdown. Overall, the findings of this study show the interlinked negative influences of a sedentary lifestyle, greater stress and isolation, the challenges of online learning, and mental health issues.

5.1.2.4 Summary of Disadvantages. Based on the participants' responses, a sedentary lifestyle, mental health issues, and learning difficulties were the primary adverse impacts experienced during the lockdown. The interplay of these factors resulted in mental stress, and poor cognitive function, all of which affected some students' mental health and academic achievement. These combined effects underscore the comprehensive impact of the lockdown, extending beyond just physical restrictions to affecting the mental and academic realms.

The negative side of the lockdown included a sedentary lifestyle (lack of exercise and boredom), mental health issues (anxiety, depression, fear, and loneliness), and the challenges of online learning. These negative aspects could adversely affect the mental health of students (as shown in Figure 5.4), making it difficult for them to concentrate on remote schooling, which was compounded by noisy home environments and increased screen time.

Figure 5.4

Learning Challenges and Mental Health's Influence on Academic Achievement



5.1.3 Conclusion

This study has provided deep insights into the potential advantages and disadvantages of the pandemic-induced lockdown on middle school students in KSA. The findings suggest that the lockdown experience was a complex interplay of positive and negative perspectives, as students navigated through domestic, personal, religious and educational domains during this unprecedented time.

The positive side of the lockdown was defined by the benefits of family gatherings, religious growth, and personal development, as illustrated in Figure 4.6. The figure highlights that these benefits strengthened family cohesion and religious activities, enhancing students' wellbeing and alleviating symptoms of anxiety and depression, which were common signs of distress during the pandemic. Positive support from family members was crucial for students during this challenging period and also may have contributed to their sense of academic achievement.

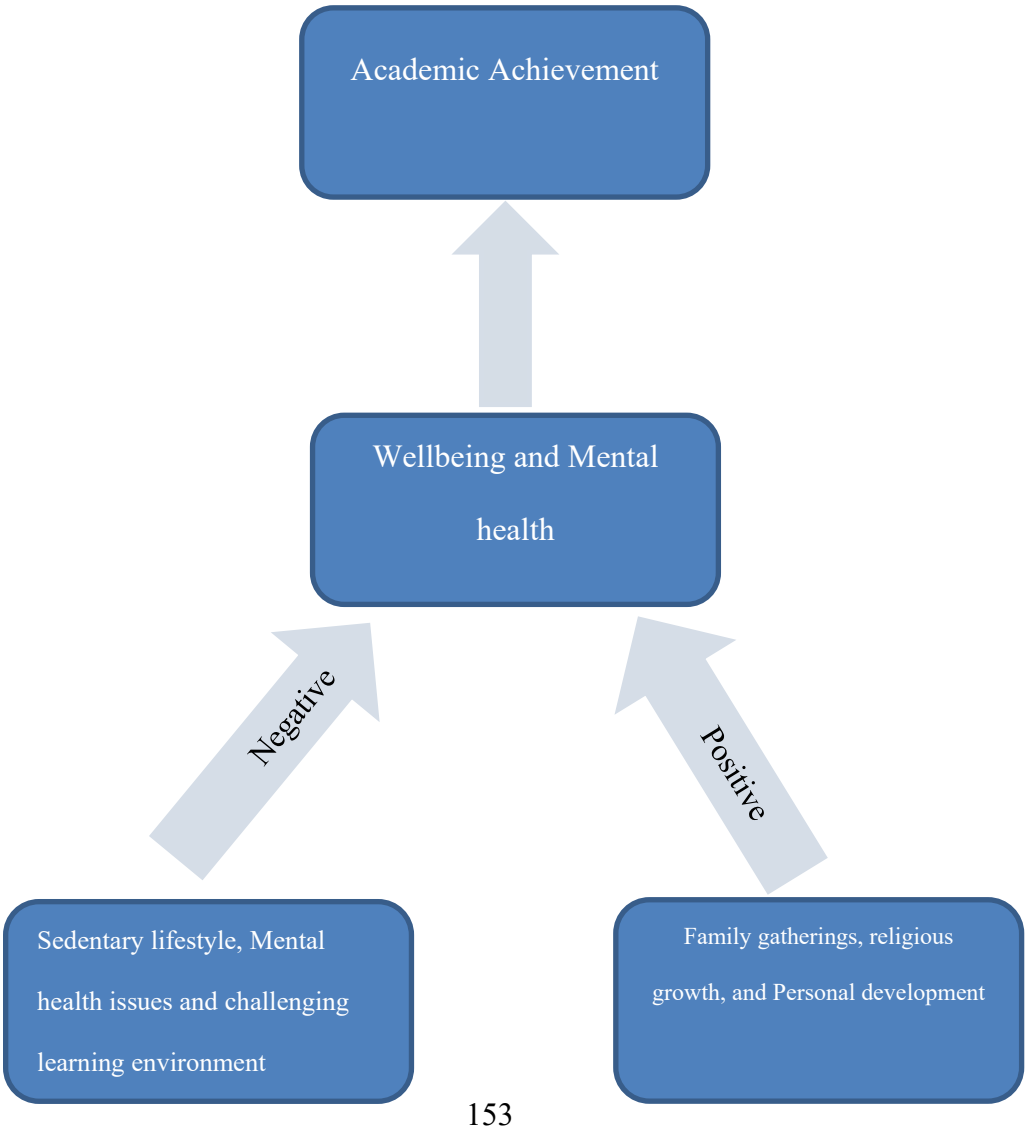
The disadvantages of the period were revealed in terms of the enforced sedentary lifestyle, negative effects on mental health, and difficulties with the shift to online learning, which included perceptions of reduced cognitive functioning. Several participant responses reported the interplay of these factors, suggesting the possibility of a negative spiral of difficulties which could impact academic achievement.

The results of this research on the mental health effects of the pandemic on academic achievement align closely with those of other researchers, such as Bas (2021), who found that lockdown had a significant negative impact on the general population, and especially on high school students. Bas (2021), found a relationship between mental health and academic achievement in adolescents using a meta-analytic model that incorporated data from 13 independent studies. According to the result of the research, better mental health was found to positively correlate with higher academic achievement (Bas, 2021).

However, it is noteworthy that for most of our student participants, the disheartening aspects of their lockdown experiences could have been substantially mitigated by the advantages - improvement in wellbeing, strong family relationships, and religious practices. Students reported that feelings of closeness with their family, the additional time available for personal development, and the feelings of calmness and solace resulting from more time in religious practice enhanced their wellbeing and helped them to navigate the difficulties of the pandemic. Thus, while seeking to understand the lockdown's impact on students' academic experience, it is important to consider the intertwining of these aspects. Taken together, these positive and negative aspects provide new insights into the impact of the lockdown on students' academic experience, as depicted in Figure 5.5.

Figure 5.5

Combined Influences



Considering the quantitative findings of this study (as detailed in Section 4.3, SEM result), wellbeing was found to have played a significant role in student's perceptions of their academic accomplishment during this crisis. On the other hand, traditionally associated factors like depression and anxiety did not significantly affect perceived academic achievement. This highlights the complex relationship between students' mental health status and perceived academic performance during challenging times. It seems likely that for most students, the positive effects of the lockdown on their wellbeing, which did correlate with perceived academic achievement, protected them from the possible consequences of the disadvantages imposed by their lockdown. In this cohort, reported advantages related to family gatherings and personal development were connected by the benefits of religious faith and practice, both communally within the family and individually. Thus, to more fully understand these layered and multifaceted experiences, it was essential to interact directly with the participants.

5.2 Students' Interview Results

In this section, the main findings from the interviews are presented. Firstly, the details of the interviewees are provided, followed by an analysis of the designated themes and subthemes derived from student responses to the interview questions.

5.2.1 Participant Details

The qualitative phase of this study involved a total of eight female participants, whose ages ranged from 13 to 15 years. No male students were interviewed due to cultural restrictions on inter-gender communication in Saudi Arabia (see Section 3.7 in Chapter 3). Five participants were from Taif city, while three participants were from Mecca. The participants were assigned a pseudonym and were also given codes using the letters of the alphabet and their ages. For example, the first participant was A15, which indicates that this participant was Abida, a 15-year-old female. Table 5.1 summarises the participants' information including their pseudonym and code number.

Table 5.1

Participant Information

Interview #	Pseudonym	Age	Code
1	Abida	15	A15
2	Jalila	14	B14
3	Ketifa	15	C15
4	Farida	13	D13
5	Gamila	14	E14
6	Jesenia	14	F14
7	Nafisah	15	G15
8	Adara	15	H15

5.2.2 Results and Discussion

It is worth noting that some of the themes derived from the analysis of the interview data (shown in Figure 5.6) are similar to those identified from the open-ended survey items; however, participants were able to articulate their views more fully during the interviews than they were able to do in their responses to the survey. Some new themes and subthemes were identified from the interview data:

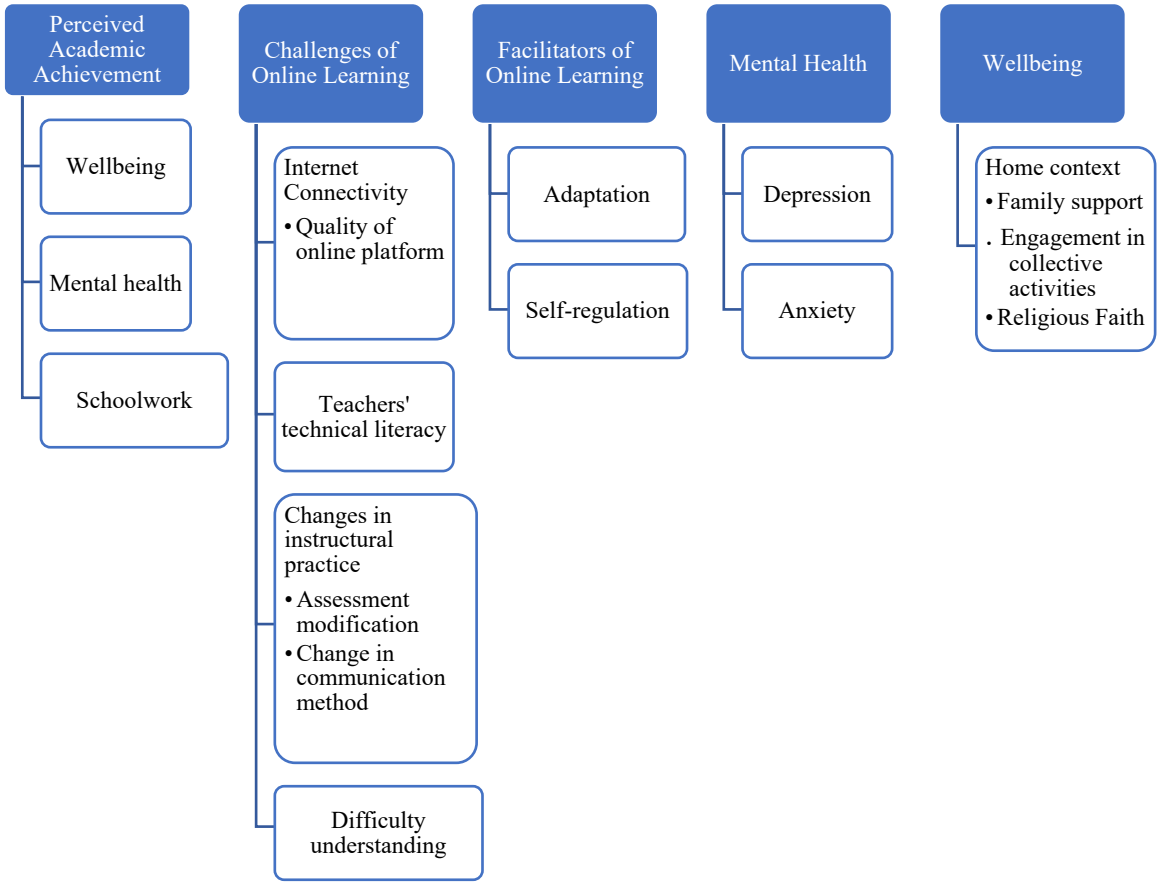
- Reflection on academic achievement

- Challenges of online learning
- Facilitators of online learning (adaptation and self-regulation),
- Mental health (depression and anxiety),
- Wellbeing (home context, family structure, religious faith, socialisation activities)

Figure 5.6 summarises the themes and subthemes of the data analysis. Each point will be elaborated further in the next section.

Figure 5.6

Themes and Subthemes Developed from the Student Interviews



5.2.3 Reflections on Academic Achievement

One of the key goals of the present study was to obtain a deeper understanding of the extent to which students' wellbeing, depression, and anxiety were associated with their academic

achievement during the pandemic lockdown. The analysis of interviews found mixed responses about students' perceived academic achievement.

For instance, out of the eight students interviewed, three students did not feel that the shift to online learning impacted their academic achievement, remarking:

> *Despite the shift to online learning, my academic achievement remained consistent with the pre-pandemic period.* (B14)

> *I do not see a change in grades since online.* (E14)

> *About the same, I did not feel the change, Praise be to Allah.* (F14)

Students appeared to be able to develop strategies to cope with the challenges imposed by the move to online learning, as evident in Gamila's statement:

> *Math was the most challenging subject, but there were ways to overcome this... once the class ended, I would either go to the 'Ain' channel or ask my Mum for help, and this strategy improved my understanding significantly. So, although there were difficulties, I did not encounter any problem that could not be solved*. (E14)

Therefore, no notable changes were observed by some students in regard to their academic performance.

Three students felt that their academic achievement had improved since the lockdown. Comments from these students included:

> *It is a bit better in all subjects.* (C15)

> *My academic achievement improved in all subjects.* (G15)

> *My academic performance dipped slightly at the onset of online classes; however, as I became accustomed to the platform, my performance subsequently improved a lot.* (H15)

By contrast, two students reported that their academic achievement had deteriorated. Abida simply stated that her performance was:

*My academic achievement was much worse. (*A15)

Farida specifically criticised how the platform was used and its effect on her:

They would send files through links on the platform, which affected my academic performance negatively. (D13)

Overall, the findings suggest a mixed picture regarding students' perceived academic achievement during the lockdown, but that, generally, students in the study were able to improve or maintain their perceived academic achievement during the lockdown. This mirrors the variability observed in the research of Panagouli et al. (2021), where the experiences of school-aged children and adolescents during the pandemic were explored. Their systematic review discovered diverse academic experiences - some students experienced a drop in their academic performance while others, especially those studying mathematics, reaped benefits from the move to online learning. The study highlights those outcomes substantially depended on students' adaptability to new learning methods and individual circumstances. This aligns well with the current study's findings, demonstrating a similar spectrum of experiences and outcomes during the lockdown.

5.2.3.1 Mental Health, Wellbeing and Perceived Academic Achievement. Interview participants indicated that generally, their state of mental health did not impact their academic performance. This was evident from statements such as**:**

My academic level has not changed even if I am not so happy. (B14)

In online classes … I liked it, and no change in grades. (E14)

Despite feeling overwhelmed at times, I have always made sure it does not impact my studies. (C15)

Yes, my mood swings but this did not impact my learning because once I started managing my stress, my academic performance improved. (A15)

Some students found online classes to be a positive and motivating learning environment. Jalila recognised the efforts of teachers to promote motivation and interaction:

Lockdown did not affect my motivation to attend class because the teachers used to get us enthusiastic and sent us interactive cards and so on. Actually, I was excited for online classes. (B14)

Gamila preferred the environment of home education:

I felt it was better than going to school, for example, I would get up and put down my computer and drink my coffee, so I liked it. (E14)

Adara also preferred online learning, reporting that it improved her efficiency and cognitive performance:

During online classes, I found that I could manage my time more effectively and felt an enhanced level of focus. I perceive it as a positive encouraging learning atmosphere. (H15)

There was evidence that family support played a crucial role in helping the students to maintain their academic performance, even in the face of mental health challenges. For example, students explained:

Even when I am sad, I still do well in class, my family is supportive. (A15)

My parents always made sure I was in the right mindset for my studies. They had been a huge factor in maintaining my academic performance, even when I felt overwhelmed or tense. (F14)

Further, interview participants generally indicated that their emotional state or state of wellbeing had a significant impact on their academic performance. This was evident from statements such as:

> *When I felt content and happy, I was more productive and more likely to approach my studies with a positive attitude. This definitely impacted my academic achievement positively.* (B14)

> *On days when I was not excited or unwell, it was difficult to focus or understand things, which affected my academic performance.* (G15)

Students who exhibited good wellbeing in terms of feeling relaxed and those who experienced good family relationships indicated that their academic performance had not been impacted, as Jalila and Nafisah explained:

> *I have more time to learn and visit family, so I am more relaxed and do well in my online class, just like in the classroom.* (B14)

> *Spending quality time with my family has kept my stress levels in check and helped me relax, positively influencing my academic accomplishments.* (G15)

While the quantitative analysis did not show any association between mental health and perceived academic achievement, the qualitative data provided a rich, nuanced understanding of the participants' experiences. Certainly, depression and anxiety may have initially affected the students' mental health; however, none of these experiences seemed to significantly affect students' academic performance. This is indicated in the quotations above, which include the reports from Jalila and Ketifa that their academic performance was maintained even when they felt unhappy or overwhelmed, Abida's feeling that she could manage shifts in her mood, and Gamila's enjoyment of online classes. Family support emerged as a prominent factor in maintaining academic performance, as evidenced by Abida and Jesenia's observations.

The quantitative analysis revealed a significant association between wellbeing and perceived academic achievement, prompting the exploration of this association through the qualitative study. The qualitative results provided a deeper understanding of how individual wellbeing intersected with academic achievement. These results underscored the indispensable role of family support in improving wellbeing and in fostering and sustaining academic achievement amidst the challenges posed by the online learning environment. This aligns with the findings of Jusienė et al. (2022), who found in a sample of school students aged 11 to 19 that better relationships between them and their parents significantly predicted their psychological wellbeing. The support and encouragement received from family members positively assisted their academic achievements. Further, Soneson et al. (2023) found that compared to their peers who experienced no change or a decline in wellbeing, a greater proportion of children and young people who noticed improved mental wellbeing during lockdown reported advancements in various areas. These areas included relationship building with friends and family, reduction in feelings of loneliness and exclusion, decreased exposure to bullying, improved school task organisation and completion, along with an increase in sleep and physical activity (Soneson et al., 2023). Reflecting findings from these other studies, the participants in this study reported that, with the support of family, the lockdown had no significant negative impact on their wellbeing and academic achievement. These qualitative findings thus help to explain the quantitative results, which showed an association between wellbeing and academic performance.

5.2.3.2 Schoolwork and Perceived Academic Achievement. Participants provided insights into their experiences with schoolwork during online learning and how it influenced their perceived academic achievement. The overwhelming workload and sometimes disorganised distribution of assignments perceived by Abida, which included ill-structured posting of tasks and frequent allocation of multiple assignments per day contrary to the standard practice in face-to-face learning, had potential consequences on students' academic achievement. Abida stated:

Overwhelming workload and disorganised distribution of assignments— characterised by a lack of structure in how tasks were posted and a frequency in assigning multiple tasks a day contrary to the usual one task per day in face-to-face learning — may have contributed to a potential decrease in my academic achievement. (A15)

Abida's perception that teachers were unable to be consistently clear and coherent in their assignment of tasks created challenges in effectively managing and prioritising her workload.

This aspect of this study's findings reflects that of Commodari and La Rosa (2021), who found that among adolescents in Italy, online learning was perceived as involving more homework, with consequent stress, as well as causing increased distraction and problems with self-organisation.

It is important to note, however, that the experience students had with schoolwork and online learning in general varied from student to student, Jalila mentioned:

The amount of schoolwork during online learning remained similar to what we had before. The same homework assignments were given, such as multiple-choice questions generated through Teams or solving questions from the subject's textbook. There were also assignments that required writing a summary and submitting it as a Word file on Teams. Despite the shift to online learning, my academic achievement remained consistent with the pre-pandemic period. (B14)

On the other hand, Farida experienced a substantial increase in homework volume during distance education, which negatively impacted her academic performance:

In face-to-face school, the amount of homework was minimal, but during distance education, the amount of homework increased significantly. They would send files through links on the platform, which affected my academic performance negatively. (D13)

These different experiences with schoolwork during online learning highlight the diverse impact it had on students' perceived academic achievement. Three students reported that the amount of schoolwork became repetitive, excessive, disorganised, and overwhelming and expressed concerns about its negative impact on their academic performance, indicating the challenges posed by the need to adjust to new methods of assigning academic work. In contrast, four students mentioned that the amount of schoolwork remained similar to what they had before. Adara, even stated that the workload decreased compared to the pre-pandemic period, explaining:

> *The homework were links across the platform, and the number of assignments decreased because in the classroom, face to face, we were doing, for example, in-depth research and it was more interactive, but through the platform, I could quickly collect and send information*. (H15)

Clearly, the transition to online learning brought about changes in the nature and quantity of schoolwork, which influenced students' ability to effectively manage their workload and achieve their academic goals. While some students reported maintaining their academic performance, others struggled with workload they found to be overwhelming and disorganised. As students differ in their ability to manage their time and other learning resources, it is possible that those more adept at self-regulation found the switch to online learning, with less time directed by the teacher and greater demands for self-management, easier to cope with (Biwer et al., 2021). Others preferred the greater direction and structure provided by the classroom environment. This suggestion largely aligns with the perceptions of teachers using the Madrasati platform during the pandemic, as considered by Aldossry (2021). His results, based on interviews with teachers, found that a disadvantage of the platform from an educator's perspective was students' tendency to rely on live classes rather than the asynchronous learning resources provided, use of which demanded greater organisational skills and motivation from students.

The qualitative findings from the present study align with the quantitative result in that the amount of schoolwork done during lockdown was not a significant predictor of self-perceived academic achievement for the majority of students. However, several students remarked that they found it difficult to adjust to the changes arising from the delivery of lessons, including difficulty with the online platform, and the increase in schoolwork. This suggests that other factors in addition to the volume of schoolwork may have influenced students' perceptions about their performance. Factors such as the quality of instruction, engagement in learning activities, social support, and individual coping strategies could potentially play a more important role in determining how students perceived their academic achievement. For example, a study by Liu, Liu, et al. (2020) conducted in a middle school in Bengbu, China, found that students who received high-quality instruction such as utilising innovative internet-based instruction, individualised learning experiences, interactive teaching utilising diverse multimedia (text, image, and animation), and fostering student autonomy and active participation were more likely to maintain their academic performance during online learning.

The qualitative findings offer valuable insights into the nuances of students' experiences, shedding light on the organisation and structure of assignments, effective workload management, and the impact of the transition to online learning on perceived academic accomplishment.

5.2.4 Challenges of Online Learning

The responses obtained from the eight participants consistently reflected the challenges associated with online learning, specifically those related to the use of the Madrasati e-learning management platform used by the Ministry of Education (2023). The technological challenges reported by the participants included internet connectivity issues, internet incapacity due to too many users in the home, technical issues such as audio troubles, and difficulties associated with how teachers used the Madrasati learning platform. The technical challenges reported again reflect the perspective of teachers interviewed by Aldossry (2021), who noted technical problems such as

internet disconnection, lack of devices and the lack of direct forms of connection through the platform among its disadvantages.

The challenges experienced in maintaining functional learning communities during abrupt and unprecedented changes, such as those created by the pandemic, illustrate the complexity of this process. The difficulties the participants experienced with online learning, particularly related to the technological aspects of the Madrasati e-learning platform, align with the theoretical underpinnings of the community of inquiry (COI) theory (Garrison et al., 2010), providing a nuanced understanding of the issues encountered in Saudi Arabia.

According to community of inquiry theory, three presences—social, cognitive, and teaching—are crucial elements of a successful online learning environment. Evolving alongside information and communication technologies since the 1980s, a central principle of COI theory is that these presences are vital for effective distance and online learning, and that in this context a community of inquiry involves interaction as well as independent learning (Garrison & Akyol, 2013).

However, the abrupt transition to online learning during the pandemic, did not allow a considered development of the social, cognitive and teaching presences defined by COI theory as necessary for successful higher-order learning. Issues with the platform caused limitations to peer and teacher interaction, reducing social presence. Cognitive presence was affected as the platform's main function was information delivery, restricting collaborative discourse. Teaching presence was also limited due to platform usability issues. These challenges encountered during the pandemic highlight the complexities involved when establishing and maintaining an effective online learning community during sudden, challenging circumstances like a global crisis.

Arguably, the pandemic's impact on KSA's entire educational system not only showcased the difficulties of developing an effective online learning community, but also foregrounded the relevance of COI theory in establishing the condition necessary for remote learning communities

(as suggested by Garrison et al. 2010), illustrates the challenges experienced during the pandemic-induced shift to distance learning. Teachers made great efforts to establish an online learning community with their students, with support from both national and local educational authorities. An OECD (2021) report into education in Saudi Arabia during the pandemic found that teachers had relatively high levels of preparedness for ICT-based teaching, were open to change and innovation, and received support in terms of strategy for educational continuity. However, in the same report it was found that many teachers reported a reliance on improvisation. In the context of a sudden and necessary shift to fully online learning, great demands were placed on both teachers and students, and the required supportive technology in KSA was lacking, exacerbating these issues. Figure 5.6 categorises and organises the identified challenges, along with their associated themes and subthemes.

5.2.4.1 Internet Connectivity. Many of the respondents reported that the most difficult challenge they faced during online learning pertained to technical issues, which made online sessions unpredictable. These issues were mostly associated with unstable network connections, which resulted in an inability to complete the sessions, missing out on studies and loss of marks (responses) due to disconnection.

A few students expressed concerns about connection issues, citing the strain on the internet network as a significant source of stress. Students stated:

The biggest challenge I faced is the pressure on the internet. (A15)

I always have problems with the internet, it is always in and out so I cannot hear or understand instructions. (D13)

Interruptions on the service were of particular concern to students who could not complete lessons or tests. As Nafisah stated:

I do not have good internet at home; I have trouble with connectivity and reception. During the online test, it might disconnect . . . [and] this made me lose a mark or marks eventually. (G15)

Similarly, Ketifa mentioned:

> *Since we all at home had online classes at the same time, the family all logged on at the same time, and that made things difficult because sometimes when I had a key test or important task, I could not log in due to weak internet connectivity or a complete shutdown.* (C15)

Gamila also said:

> *Sometimes the internet was disconnected so I did not understand and see the lesson well*. (E14)

Similarly, Jalila stated:

> *The internet may disconnect, and I did not hear the explanation of the teacher clearly compared to when I was at school. I hear the teacher clearly at school and understand - there is no internet disconnection.* (B14)

Another challenge related to internet use those students faced was the simultaneous operation of multiple devices on the same network, often while other family members were participating in online classes. This concurrent use sometimes consumed the available bandwidth, which, could lead to connection dropouts or slower internet speeds. The overall connectivity and range were poor, contributing to the loss of optimum digital access. As Gamila put it:

> *Many devices at my home were on the same internet at one time so the connection gets weak*. (E14)

This was an experience that was also experienced by Ketifa:

> *As all the family entered, the platform was already taking a lot of networks, so it was under a lot of pressure*. (C15)

Likewise, Adara stated:

> *Many devices at my home and many people are on the same internet and at one time consuming the platform and consumes a lot of internet and it is under pressure and the connection gets weak*. (H15)

These issues negatively impacted students' ability to access online platforms effectively and compromised the quality of their digital learning experience. Consequences from this issue impacted the perception that these students had about their academic performance, as Adara pointed out regarding her problems with the internet and connectivity:

> *This affected my learning a little bit because there were classes that I could not enter due to disconnection of internet. So, I had to move to another place within the house that had a better network, causing a loss in concentration during classes*. (H15)

These statements about problems with internet connectivity and network access are evidence of the degree of concern felt by the students during the lockdown while trying to maintain their academic performance. The reported challenges with internet connectivity during online learning highlight the significant impact of unstable network connections, interruptions, and disconnections on the students' ability to fully engage in online sessions and comprehend lesson content effectively.

Garbe et al. (2020) demonstrated that students' access to reliable and high-speed internet was a significant factor for adjusting to online learning. Similar challenges were pinpointed by students in this study, emphasising the global relevance of these hurdles. The critical need for stable and affordable internet was underscored, given its direct impact on students' academic journey and mental health, thereby aligning with the findings of Garbe et al. (2020). Further, in a literature review of inclusivity in education during the pandemic, Uleanya et al. (2021) found that internet access and connectivity played an important role in allowing students to participate in high quality education. Other studies among middle school students in Bhutan (Chogyel et al., 2021), school and college students in India (Selvaraj et al., 2021), and university students in Bangladesh (Siddika et al., 2021) and the Philippines (Dayagbil et al., 2021), also found poor internet connectivity to be a key factor negatively affecting students' experience of online learning during the pandemic. The

frequent complaints about internet connectivity reported by participants in this study thus align with other findings on the necessity of fast and undisrupted internet access for effective online education.

5.2.4.2 Quality and Online Platform Design. Another challenge during online learning was audio problems with the online platform Madrasati. Students often experienced disturbances in the Madrasati online platform's audio and video quality, which affected their ability to concentrate on the lessons and sometimes this caused them to miss parts of the lessons. Two participants, Gamila and Jesenia, specifically mentioned audio issues:

> *I hate the Madrasati platform because it is messy, and there are many noises. For instance, sometimes when the teacher unmutes a student, there is a lot of background noise that makes it difficult to hear the teacher's response and understand what is being taught*. (E14)
>
> *There is always loud noise coming from the speaker when attending online sessions, and sometimes it is so bad that I cannot hear the teacher properly or participate in class discussions*. (F14)

These comments not only highlight the challenges students faced with audio difficulties while using the Madrasati online platform, but also bring up concerns about the platform's audio features. This suggests that the platform was not effectively designed to deal with background noise and that the teachers sometimes struggled to use the audio features effectively. These technical issues posed a significant problem for students.

5.2.4.3 Teachers' Technical Literacy. The teachers' inability to impart online lessons effectively and, particularly, to manage the Madrasati platform was a significant source of concern among the students. This lack of technology literacy demonstrated by the teachers placed stress on the relationship between the teachers and students and impacted the students, as reflected in the students' comments.

The comments regarding teachers' digital literacy add an interesting dimension to previous research on this issue, most of which has focused on teachers own perceptions of their ability in this area. For example, a large study of teachers of all levels in Spain found that many perceived their digital skills as low, and recommended further training in this area (Sánchez-Cruzado et al., 2021). In a literature review, Li and Yu (2022) found that many teachers reported various challenges related to their digital literacy and a lack of technical support when teaching online. Cramarenco et al. (2023), in a recent systematic review of student perceptions of online education during the pandemic, did report that low technical literacy among teachers was a disadvantage in the period. The findings of this study underline the importance of digital literacy training and technical support for teachers adapting to online education.

Although participants did express concerns about teacher's tech-literacy and its impact on their learning experience, they did not specifically discuss its perceived effect on their own performance. Therefore, additional research would be needed to determine if in fact this impacted the students' perception about their own performance, which would seem likely. During online classes using the Madrasati platform, students struggled to participate in lessons and make themselves visible to the teacher, an issue specifically brought up by Abida:

> *The teacher was unable to listen to my answers as a result of these disturbances. This affected my participation because I hate to participate in the platform where some teachers do not notice me, when I raise my hand and I can't talk on the microphone if I am muted by the teacher.* (A15)

Apart from technical communication problems with the Madrasati platform, students noted difficulties on the part of teachers to manage the online lessons effectively, a concern identified in a study Aldossari and Altalhab (2022), which explored teachers' perceptions of the effectiveness of distance education in Saudi Arabian public schools during the lockdown and the challenges they faced as a consequence of lack of technical proficiency and poor training. The study utilised a mixed-method approach, including a questionnaire and semi-structured interviews with 114 female

secondary-level English teachers. The findings revealed that while there was an overall positive view of distance education, teachers preferred traditional in-class teaching due to their familiarity with it.

Challenges highlighted by teachers in the Aldossari and Altalhab (2022) study included a lack of internet connection and human interaction, technical issues, assessment reliability, increased workload, and students' unwillingness to learn. The study recommended the implementation of technical and pedagogical training for teachers, better technical support, and thorough online learning training for students. These measures were highlighted as key to enhancing the efficacy of distance education and assisting teachers in effectively navigating online teaching methods.

Students often remarked that their teachers had severe difficulties to teach effectively in an online environment, which was a source of frustration. For example, Jalila noted that the messy online platform and disturbances affected not only the students' participation but made it difficult to get the teacher's attention:

> *The teacher did not answer me because she did not understand how to use the Madrasati platform*. (B14)

Meanwhile, Farida commented that:

> *Because the teachers are not clever in technology, for example, the teachers did not understand the platform and how to deal with it*. (D13)

Also, Ketifa said:

> *From the online classes, it was apparent that some of our teachers were not technologically savvy.* (C15)

Such struggles have wider implications, as indicated by the community of inquiry theory, which highlights *teaching presence* as a critical aspect of a successful community of inquiry. It refers to activities a teacher undertakes to create a purposeful and productive community of inquiry, including the design and facilitation of cognitive and social processes for meaningful and

educational learning outcomes (Anderson et al., 2001). Given the abrupt transition to distance education prompted by the pandemic, it is plausible that attempting to establish a robust teaching presence created considerable challenges for Saudi teachers, thereby inadvertently affecting the broader learning community.

While the Ministry of Education, teachers, and students in Saudi Arabia made significant efforts, they were met with considerable hurdles in establishing a community of inquiry during the COVID-19 pandemic. Regardless, this study found that elements identified by the community of inquiry theory – social, cognitive, and teaching – were present in this new learning environment, albeit in different capacities and not within a typical collaborative community. As discussed above, these elements proved to be crucial in understanding the challenges experienced during this period and the potential effects on students' learning outcomes.

This study has utilised the elements of the community of inquiry model as guiding principles for understanding the unique dynamics of emergency remote teaching. However, it is important to note that further research would be needed to establish and investigate a fully functional community of inquiry within this context.

In spite of the many problems both teachers and students faced during the pandemic, students nevertheless found support from their teachers in using digital media. For example, Adara remarked on how she was supported by:

> *My family and my teachers. I can ask teachers via Teams and they offer support with homework or anything I could not understand.* (H15)

Similarly, Nafisah said:

> *I can ask teachers and they supported me in understanding my homework*. (G15)

In addition, Abida mentioned:

> *My teachers were always available on Teams and would say, 'Pop up your question, and I will help.' They were really supportive and made sure we understood the lessons*. (A15)

From these students' perspectives, it is evident that the teaching presence, in the sense described in COI theory, was appreciated by some students despite the challenges caused by the sudden adoption of online learning.

In addition to those students who experienced strong online support from teachers, a few students evidently enjoyed studying online. They felt more animated, energetic, and motivated than they usually did during in-person classes. For example, Nafisah stated:

> *I was feeling excited and motivated, not sleepy. I love the online classes. I hate to think about going back to school after lockdown*. (G15)

This sentiment resonates with the findings of Widnall et al. (2022), who found a reduction in anxiety in UK students aged 13-14 during the first lockdown, attributed to relief from being out of the in-school environment.

During the pandemic, some students in this study may have benefited from the home study environment, which differed significantly from the traditional school environment. In the home study environment, some students may have found greater security and support, and experienced fewer peer-peer or student-teacher conflicts. This might explain why student Nafisah said:

> *I hate to think about going back to school after lockdown.* (G15)

Although this study primarily emphasises student experiences during pandemic-induced remote learning, it indirectly hints at potential challenges some students might have faced upon returning to the traditional classroom setting, particularly if they enjoyed fewer conflicts at home. These students might have experienced difficulty and anxiety when reintegrating with classroom learning post-pandemic. According to Widnall et al. (2022), these are valid concerns as their study also raised similar issues about a potential increase in anxiety upon reintegrating into the traditional school environment. A recent study in Chile (Caqueo-Urízar et al., 2023) also noted the complexity of the relationship between mental health and school attendance during and after the pandemic. They found that during the pandemic, students reported fewer problems related to peer relationship

and the classroom environment, but that issues in these areas increased significantly when students returned to in-person learning. It is worth acknowledging the possibility that further mental health and educational challenges related to the pandemic may emerge when students return to school, but a comprehensive understanding of these potential challenges would require additional targeted research.

5.2.4.4 Changes in Instructional Practices. The lockdown forced schools, teachers, and students to develop the teaching-learning process using a new online approach. Thus, the shift from face-to-face classroom instruction to an online mode of teaching led to significant consequences for both teachers and students. These concerns are grouped under themes and subthemes illustrated in Figure 5.6.

5.2.4.4.1 Assessment Modifications. In the transition from face-to-face classroom instruction to online teaching, there were significant changes in assessment practices. Three participants stated they received less feedback on their homework and academic materials than if they were in a face-to-face setting. Ketifa mentioned that:

> *I did not receive any feedback because the Madrasati platform automatically corrected your homework answers and gave the grades.* (C15)

Jalila said:

> *I do not remember receiving any feedback from my teacher about my homework or participation. I guess she just stopped because we are online now.* (B14)

Adara had a similar perception, mentioning that:

> *We do not need feedback on our assignments anymore, everything is automated.* (H15)

Likewise, Abida said:

> *Not really, I did not receive feedback, I do get more feedback face-to-face.* (A15)

Also, Farida mentioned:

> *The corrections are done electronically, and I am notified if my answers are correct or not. If they are accurate, they mark it as 'correct', and if there is a mistake, they point out where I went wrong. This is the only feedback I received, which is less than what I got during face-to-face classes.* (D13)

The nature of online communication and its dependence on technology for automatic feedback was one of the difficulties students experienced in receiving the kind of elaborated feedback normally provided by teachers that is essential in developing critical thinking skills.

Research by Hattie (2017), emphasised the significant impact of feedback on student achievement. His meta-analysis of 80,000 independent studies revealed a large effect size of 0.70, highlighting the crucial role feedback plays in enhancing student performance. Furthermore, the meta-analysis by Wisniewski et al. (2020) revealed that feedback plays a significant role in student learning and the development of critical thinking, with a medium effect observed overall. However, the study emphasised that feedback should not be treated as a uniform treatment due to variations in its effectiveness. It was also noted that the quality and specificity of feedback are crucial factors. Feedback that is rich in information was found by Wisniewski et al. (2020) to be far more effective than simpler forms of reinforcement and correction. However, in this study the students reported that the feedback provided in the lockdown conditions was restricted in scope, lacking the depth and detail typically received during face-to-face classes. Similarly, automated feedback on Madrasati was scarce in information and deemed unhelpful.

In a study on online feedback pre- and post-pandemic in Germany and the Netherlands, Sedrakyan et al. (2023) found that motivational and social aspects were lacking, and noted the limited amount of research as yet available in the field. As the amount and quality of feedback received through online learning platforms was a frequent complaint of participants, this study

reinforces the need for more research into effective feedback in distance and online education. Further, the reduced interaction between teacher and students and limited feedback resulting from automation in the current study may have deprived students of timely and personalised guidance, potentially hindering their academic performance.

5.2.4.4.2 Change in Communication Methods. Participants suggested that the shift to online learning brought about changes in their social environment and, therefore, available communication channels with peers and teachers. They expressed difficulties in articulating their thoughts and emotions because of the nature of online communication, emphasising that it lacked the same level of social interaction as a physical classroom. For instance, Abida stated:

> *I find it difficult to talk using the online service, it just isn't the same as being in class*. (A15)

Responses such as this demonstrated that before the lockdown, students were accustomed to communicating freely with face-to-face interaction with teachers. In a traditional classroom setting, students had the advantage of observing the body language and facial expressions of their peers or teachers. However, with the onset of the lockdown, students and teachers were compelled to communicate solely through digital platforms, such as Microsoft Teams, Snapchat, and Instagram.

Video technology such as Microsoft Teams limits the perception of verbal cues, found by Dewan et al. (2019) to be an important aspect of engagement. However, the same study found that facial expressions were a particularly important aspect of communication in online education. Due to cultural factors in Saudi Arabia, students were unable to see their teachers' facial expressions; during online instruction, female teachers are required to cover their faces using a niqab or veil to prevent them from being seen by others who may view the computer or mobile phone screen. This is a restriction that does not apply when female teachers are teaching exclusively female students in person. In an online environment, since the students were unable to see the teachers' faces during instruction, expressions and gestures were not readily visible.

Two participants stated they experienced challenges in learning because they were unable to see their teachers' faces, thereby missing out on important elements of communication. Ketifa explained the problems this caused for her:

> *I did not understand some of the lessons, especially mathematics and science because I want to see the teacher face-to-face while she explains on the board. She is not visible for me on the platform, I need to see teachers' faces, and expressions to understand.* (C15)

In a similar vein, Jesenia stated:

> *In face-to-face classes, I can see the teacher, see her facial expression.* (F14)

These responses suggest that the teacher's gestures and facial expressions are important communication tools that the students were accustomed to in the classroom environment, and which they noted the absence of during online classes dependent on the teacher's voice. As Abida explained, the lack of in-person, face-to-face contact reduced the quality of her interaction with the teacher:

> *I do not feel like there is a teacher in front of me. I cannot see her . . . Because on the platform, we do not see a face, and there is nothing that can improve the interaction*. (A15)

The dominant theme of student responses on this topic, however, related to the shift to more text-based communication. For example, Ketifa mentioned:

> *We use Snapchat a lot to communicate now that we do not [physically] see each other daily*. (C15)

Farida shared that:

> *My teacher sends me a message on Instagram when she wants my attention. I had to create an account once we started online schooling*. (D13)

Jalila said:

> *In lockdown, I get tired of writing to my friend via phone, and I cannot write everything I want. I express more face-to-face*. (B14)

Students did not report extensively about the limitations of texting during lockdown. However, the quotations above suggest that for some students, the information they could have by looking at the interlocutor's face was lost; only the individual's voice or written messages were the available communication channels between the parties. Students remarked on the change in communication enforced by the inability to speak in person, and for some students this circumstance prevented them from interacting and reacting naturally as they would have in face-to-face communication.

Although not directly related to the pandemic, Bambaeeroo and Shokrpour (2017) explored the role of non-verbal communication in teaching effectiveness—part of communication which was not available during the lockdown. Their study highlighted the significance of non-verbal cues in education and found a strong correlation between the quality and method of teachers' non-verbal communication and successful teaching outcomes. The study emphasised various patterns of non-verbal communication, including "emotive, . . . supportive, imaginative, purposive, and balanced communication" (Bambaeeroo & Shokrpour, 2017, p. 51), all contributing to enhanced learning and academic success. While the current study focused on students' experiences during the pandemic, it echoes insights from the emphasis in Bambaeeroo and Shokrpour's (2017) study on the importance of nuanced non-verbal communication, which was limited by both text-based media (Snapchat and Instagram) and video calling through Teams.

Students expressed difficulties adapting to the limitations of relying solely on voice or written messages. The lockdown clearly forced schools, teachers, and students to confront the realities and limitations of being forced to use an online approach. Thus, the shift from face-to-face classroom instruction to an online mode of teaching initially presented challenges in developing an effective social presence, which is essential in creating a functional community of inquiry.

However, these challenges also underscore that social technology functioned as a lifeline for many adolescents. As such, these students proactively engaged with alternative digital platforms such as social media to communicate, maintain relationships, and continue their studies, thereby

fostering a sense of community. Consequently, the ability of these students to navigate the digital landscape amidst the crisis reflects their adaptability (James et al., 2023; Orben et al., 2020).

James et al. (2023) identified that digital communication such as daily texting and video-chatting during the COVID-19 lockdown with peers led to enhanced feelings of closeness and improved emotional health, and reduced depressive and anxiety symptoms among adolescents. Further, Orben et al. (2020) emphasised that digital social contact could reduce the negative effects of physical isolation on adolescents during the COVID-19 pandemic. These factors are further expounded upon in the subsequent section, (Section 4.6.5, Facilitators of Online Learning). By integrating the insights from James et al. (2023) and Orben et al. (2020) with the responses of the participants regarding the impacts of digital technologies, a comprehensive understanding emerges of how these platforms play a pivotal role in supporting adolescents' social connections and emotional wellbeing amid challenging circumstances. This underscores the essential nature of digital communication in fostering peer interactions and promoting adaptability during times of isolation and change.

5.2.4.5 Difficulties Understanding Instruction. Aside from technical issues and the challenges of online communication, one of the major difficulties students had during the lockdown was in understanding the content and instructions from their teachers— which was a consequence of both the technology and the nature of online communication.

Online instruction provided fewer opportunities for individual questioning, which is one of the hallmarks of critical thinking. Farida said:

> *Often, I am unable to understand what my teacher is trying to say. It was so much easier when I could wait for a class break and ask her in person*. (D13)

Likewise, Jalila reported:

> [I] *faced difficulties in understanding compared to face-to-face classes.* (B14)

Gamila, stated that:

> *In my science class, my teacher does not provide the same examples online as she did when we were in school. I find the classes so much more boring now.* (E14)

From these experiences, it can be deduced that the online teaching modality reduced the effectiveness of student communication with their teachers during the lockdown. Participants mentioned difficulties in grasping the content, lack of individual questioning opportunities, and a perceived decrease in engagement compared to traditional face-to-face classes. The participants encountered challenges in comprehending instructions and learning in an online mode which was generally seen as not as effective as in face-to-face classes. As Abida stated:

> *In mathematics, the teacher did not explain as she used to explain in the face-to- face lesson. I did not understand as much, for example, as when I was in school, where the face-to-face explanation was more interactive.* (A15)

Abida elaborated on how changing the usual way of learning had a negative impact on her learning experience, as she expressed her dislike for the transition to online learning:

> *I did not like submitting assignments online because I used to work more with books in face-to-face classes. Also, the teacher monitored me in person. When this changed, I did not like it. I told myself, 'How can a teacher explain things to me through my mobile phone?' I hate this way.* (A15)

By contrast, Ketifa felt that learning in an online environment had actually improved her academic achievement.:

> *My academic level improved in all subjects. I have family support, so I am not worried*. (C15)

Although this student did not find that online instructions impacted her academic achievement, the lack of face-to-face communication was a frequent complaint among many of the students interviewed.

Findings suggest teachers may have encountered challenges in explaining content online, potentially due to the lack of visual cues and real-time interactions that are intrinsic to face-to-face teaching. This insight hints at the difficulties teachers faced in adapting their instructional approach to the virtual environment, which could have hindered their ability to effectively convey complex concepts in an online setting. Aldossry (2021) emphasised the importance of technical knowledge and training for both teachers and students to optimise the use of distance learning platforms. This resonates with the challenges identified by students' responses, particularly in terms of the limitations of online instruction and the difficulty of maintaining critical thinking skills and cognitive presence in educational settings. Aligning the difficulties faced by teachers with the call for enhanced technical proficiency highlighted in the Madrasati Platform evaluation underscores the necessity for robust training and support frameworks to facilitate effective online learning experiences.

In the broader theoretical context, these experiences indicate potential issues with maintaining *cognitive presence*, an essential aspect of a successful learning community as defined by Garrison and Akyol (2013). They argued that cognitive presence is a vital element in enabling learners to develop their critical thinking, and a key aim of educational practice well supported by learning theory. In the context of a formal educational situation, critical thinking can be encouraged by how students respond to the content provided by their teacher, by the questions they are invited to ask, and by feedback on performance. All three of these avenues to critical thinking were limited in the online learning context.

Overall, the participants revealed that the shift to new learning and assessment methods during the pandemic was challenging. However, the majority of students did not report a significant and ongoing impact on their academic performance, mental health or wellbeing.

It can be argued that the two distinct perspectives about online learning among these students, one being able to adapt and respond positively over time, and the other experiencing significant mental health challenges yet demonstrating coping, can be explained by considering individual factors and the corresponding household environments impacting each student.

There is evidence in the participants' quotes that they are using digital channels, such as Snapchat, Instagram and Microsoft Teams (Sections 4.6.4.4.2, and 4.6.5.2), for both social interactions and academic support. Students mentioned working together in Teams and playing games online. These interactions demonstrate some students' engagement with web-based technology, which helped them to better adapt to online learning. Maqableh and Alia (2021) reported that challenges in maintaining effective time management and a study-life balance were the basis of the students' difficulties to shift to online learning. These experiences align closely with the challenges identified in the current study, adding depth to our understanding.

The impact of poor internet connectivity and the home environment, particularly the level of noise and the number of household members, were common concerns in both this study and the research conducted by Maqableh and Alia (2021). These shared concerns suggest a broader issue affecting the quality of online learning experiences. Therefore, the two viewpoints hinge upon their initial reaction to the shift to online learning and their subsequent ability to adapt, whether by self-regulation or the development of coping mechanisms. The factors contributing to these differences could include engagement with web-based technology, internet accessibility, home environment, and religious belief and practices. The latter are discussed in Sections 4.6.4.1 and 4.6.7.1 and 4.6.7.2 below.

5.2.5 Facilitators of Online Learning

In spite of the many difficulties Saudi middle school students faced with the lockdown, one of the major insights to emerge from the interviews was the extent to which these challenges served as a source of development as the students adapted to this radically changed social and learning

environment. Whereas the theoretical framework provided by the community of inquiry theory helps in understanding how the students tried to adapt to new forms of social and cognitive presence in the online learning environment, Bandura's (1986) social cognitive theory specifically highlights how these students employed observational learning and personal experiences, despite the constraints of an online environment, to adapt and overcome the challenges they faced. This perspective allows an understanding of the remarkable adaption these students showed in turning an initially difficult situation into a successful and developmental learning experience.

The central concept of Bandura's (1986) social cognitive theory is that learning takes place in relation to a social context (such as with other students) and that there is a reciprocal relationship and interactions with the environment (such as in a classroom) which are affecting the learning process. In this sense, social cognitive theory encompasses interactions between external influences, including motivation, attention, and memory, while it also implies that the learning process is affected and influenced by rewards and observable consequences.

In a traditional face-to-face classroom, the task of the teacher is to inspire, encourage, and engage students in a collaborative and inclusive educational inquiry environment dedicated to achieving progress in their learning (Tissenbaum & Slotta, 2019); this is the environment envisioned by the community of inquiry theory as possible in an online learning community should the criteria of social, cognitive and teaching presences be met (Garrison & Akyol, 2013). However, in online learning, the teacher does not have the same immediate presence as in a traditional classroom. Therefore, in an online platform, it is more difficult for students to address the teacher with their questions or engage in a learning dialogue. Similarly, teachers are prevented from observing or engaging with students in online lessons, since they cannot use gestures effectively or readily respond to students in an open classroom discussion.

Social cognitive theory sees learning taking place through social observation and direct experiences, such as imitation and modelling, which are admittedly more difficult in the context of remote learning. Consequently, the perception students in this study had about their academic

achievement in the initial stages of the lockdown were of concern, given all the barriers Saudi students needed to overcome. Therefore, students' ability to adapt to and engage effectively with online learning in the absence of social observation was crucial and several factors relevant to this process are discussed in the next sections.

5.2.5.1 Adaptation. Suddenly confronted with a new way of learning, many students initially reported mixed but often negative feelings. Indeed, some of their comments suggested they felt unhappy and sad about having courses online and not being able to see and exchange directly with friends and classmates, although many reported mixed emotions. For example, Nafisah said that she:

> *Felt sad, the reason that I could not meet my teachers and friends although sometimes there were happy moments.* (G15)

Gamila reported that when she was on the internet:

> *I felt mixed feelings, sometimes happy and sometimes sad... Mixed feelings. But later I became happier*. (E14)

Farida also experienced that:

> *There were some happy sides, and sometimes feel bored, it's mixed feeling.* (D13)

In contrast, Abida explained:

> *I was sad, I could not meet my teachers and friends.* (A15)

Therefore, students expressed mixed feelings and differed in some of the ways they experienced studying in lockdown.

The students' mixed feelings in this study were consistent with outcomes from research in other countries. For example, Almendingen et al. (2021) reported that students attending a Norway

university initially had mixed feelings about online learning during the COVID-19 pandemic, expressing concerns about the lack of social interaction and reduced motivation. Likewise, Cockerham et al. (2021) found that the majority (62.5%) of participants reported negative effects of the transition to online learning, including anxiety, demotivation, and disappointment.

However, as Luszczynska and Schwarzer (2015) pointed out, a personal sense of control can make behavioural change possible. They argued that when individuals believe they have the capability to take action instrumentally to solve a problem, they are more likely to do so and feel a stronger commitment to their decision. This sense of adaptability and capability was raised by participants' responses in the current study suggesting that their initial concerns were short-lived as they learned to adapt to their new learning environment. As Nafisah said:

> *Maybe in the beginning, the online learning was strange to us, and I was not able to see all my friends, but then I adapted.* (G15)

Similarly, Gamila pointed out:

> *Shifting to online learning affected my overall happiness at the beginning, then I adapted to the situation and did not feel any sadness*. (E14)

Also, Jesenia said:

> *I found the shift to online learning challenging at first, not seeing my friends every day was difficult. However, I gradually adapted to it.* (F14)

This adaptation was due in part to the family support and presence of religious faith in the home environment, and students in this study generally reported positive perceptions of their academic achievement during the pandemic lockdown. Some students even expressed a perceived improvement in their academic achievement as they adapted to the changed circumstances.

In a pre-pandemic study of high school students in Australia, Burns et al. (2018) considered adaptability and personal best goals in relation to the constructs established by social cognitive theory (social support, self-efficacy, perceived control, self-regulation, and goal setting; Bandura,

1986). They found that support from parents, peers and teachers predicted adaptability and the pursuit of personal best goals, and that this pursuit, in turn, predicted academic achievement. As the circumstances of the pandemic demanded rapid adaptation to new ways of learning, it is likely that the ability to adapt was related to higher levels of perceived academic attainment, as seen in the responses of these students. The findings here thus support those of Zhang et al. (2021), whose study of university students suggested that adaptability correlated with positive academic emotion.

5.2.5.2 Agency and Self-Regulation

As discussed in Chapter 2, it was anticipated that during the pandemic and lockdown the students' perceptions about their academic achievement would be diminished compared to what would have been expected in their former classroom learning environment. However, contrary to expectations, the students in this study confirmed that they were to maintain or even improve the levels of learning achievement during the lockdown. This finding contradicts findings from other research, such as that of Cortés-Albornoz et al. (2023). In a systematic review, they found that various factors including lack of motivation had a negative effect on academic performance. This leads to questions about how it was possible that students' academic performances were maintained or even improved in the adverse conditions of the learning environment imposed by the lockdown.

In relation to this finding, another study, by Spitzer and Musslick (2021), found increased academic performance during the lockdown. Conducting a large-scale study on the impact of school closures on K-12 students' performance in an online learning environment for mathematics, their research revealed that students' performance improved during the school closures in 2020 compared to the previous year. Notably, the study found that low-achieving students showed more significant improvements than high-achieving students, leading to a narrowing of the performance gap between these student groups.

Possible factors contributing to the enhanced performance in mathematics during school closures, according to Spitzer and Musslick (2021), include increased utilisation of online learning

platforms, higher teacher incentives, reduced math anxiety in home schooling settings, and minimised distractions for students studying at home. The research highlighted the individualisation of problem sets in online learning environments as a beneficial strategy for supporting low-performing students and closing the performance gap.

Although the current study did not categorise students into high or low-achievement groups, the result resonate with the concept of increased or sustained perceived academic achievement during the lockdown. The adaptability and coping strategies demonstrated by students in this study enabled them to maintain or enhance their perceived academic performance despite online learning challenges. These findings underscore the significance of adaptability, individual circumstances, and effective online learning methods in promoting academic success during crises.

By drawing parallels between the current study and the research by Spitzer and Musslick (2021), a better understanding of the diverse student experiences and outcomes during the pandemic can be achieved. This comparative analysis sheds light on the various factors, such as adaptability, coping mechanisms, and learning approaches, that impact academic achievement in remote learning settings, offering valuable insights into navigating academic challenges during times of uncertainty.

Students in lockdown were not expected to have flourished or performed well academically because of the restrictive social and environmental circumstances of the pandemic lockdown, given that they were forced into relative isolation with limited support from the education system and were unprepared for a radically different learning model. A central concept of social cognitive theory, however, is agency, defined as a sense that an individual could influence events in their environment (Schunk & DiBenedetto, 2020, p. 2). The students in this study demonstrated this level of agency, as revealed in the subsequent participant narratives, through proactive self-regulation, self-motivation strategies, and leveraging support tools and collective learning.

Participants' responses provided evidence concerning their capacity to develop a sense of agency, to learn to self-regulate their learning—and their lives— during the lockdown period, with

some students stating that they learned greater self-reliance and independence in the period. The operation of agency is particularly noteworthy as the student responses suggest that they proactively employed self-motivation strategies and techniques to overcome the challenges of online learning. Students also sought help from friends and family, as well as from other resources such as the 'Eye Gate' AIN educational channel. In circumstances in which traditional sources of support in face-to-face education were absent, most participants developed more autonomy and agency, enabling them to manage their studies. That is, they looked for different strategies to maintain their performance despite the changed condition of learning. For example, Farida said:

> *I became more focused on myself because, in face-to-face classes, I was busy talking to my friends and playing with them. Now my focus is more on myself, [I] rely on myself to understand the lessons, and I concentrate more on the teacher on the platform.* (D13)

In the same vein, Jalila mentioned that:

> *My academic level has not changed; it rose a little bit, and the reason is that I learned independence and self-learning about anything I didn't understand and seeking help through the educational* AIN *channels*. (B14)

Therefore, both Farida and Jalila showed self-regulation (agency) by using Saudi Arabia's *AIN* educational channel for help when instruction from teachers was not sufficient.

One of the sources of agency was other students and friends seeking mutual support. Nafisah said:

> *When we want to study, we make a group in [Microsoft] Teams, and a student shares their screen and explains to us*. (G15)

Furthermore, Jalila said:

> *Every time we finish the study on the platform, I and my friends prepare for the new lessons via [Microsoft] Teams together*. (B14)

Similarly, Adara said:

> *We share information, study, and prepare for tests, so it was helpful*. (H15)

These findings highlight the importance of students' ability to adapt and engage in self-directed learning during unprecedented situations, such as the COVID-19 pandemic. The emphasis on studying together in these interview responses also shows the extent to which students were able to create the social presence based on purposeful collaboration required for a community of inquiry in online learning (Garrison & Akyol, 2013).

Biwer et al. (2021) examined how university students adapted to emergency remote learning during the COVID-19 pandemic, focusing on resource-management strategies and indicators of successful adaptation. The study's identification of distinct adaptation profiles of students, including those that embraced increased autonomy and successfully self-regulated their learning, aligns with the students' responses in the interviews, particularly in the face of unprecedented circumstances. This alignment emphasises the pivotal role of self-regulation in navigating challenges posed by the pandemic, thereby reaffirming the crucial importance of students' ability to proactively adjust and thrive in a rapidly changing educational landscape.

Reis (2004) emphasised the significance of self-regulation in academic success, particularly in comparing high-achieving students with low-achieving students and showcased how high-achieving students set specific learning goals, utilise various strategies, and adapt efforts systematically. Concurring with Reis's (2004) findings, the participants in the current study showcased diverse experiences regarding their academic achievement during the lockdown. While some students perceived improved performance, others reported no significant impact or even a decline in their academic outcomes. However, a noteworthy observation was the students' demonstrated adaptability and proactive self-regulation in managing their studies during challenging circumstances. This highlights the importance of self-regulation in enhancing academic outcomes and promoting resilience among students facing adverse conditions. The alignment between the current study's findings and Reis's (2004) research underscores the critical role of self-regulation in navigating academic challenges and fostering success in dynamic educational environments.

5.2.6 Mental Health

Concerns regarding mental health emerged from the interviews, particularly related to depression and anxiety.

5.2.6.1 Mental Health. The new online modality to learn and be evaluated, and the other limitations imposed by the lockdown, had repercussions on the mental health of these students. Mainly fear and uncertainty were among the emotional features characterising the students' mood during that period. For example, Abida voiced her concerns, saying:

I was afraid of illness and death. (A15)

This fear of the pandemic and its consequences added to the challenges students faced in adapting to the new learning environment.

Some participants reported that the new learning and assessment techniques exacerbated their fear and uncertainty.

For Abida, online learning was less stimulating and induced sleepiness and lack of engagement, both symptoms of depression: uncertainty seemed to be present when she did not have the immediate teacher's support as it was before the lockdown. She continued saying:

I feel like sleeping, and it is boring. (A15)

Other students, such as Nafisah, also expressed boredom and sadness, but in this case, the physical effects of lockdown were present, as online learning forced her to be in front of a monitor for an extended period, which resulted in sadness:

It is boring, and it causes sleep and headaches … My mood changed to sad, and I do not like to talk about that in front family and friends. (G15)

Nafisah's reluctance in sharing her feelings with potential sources of support suggests a potentially concerning resistance to seeking help for her mental health. In a longitudinal study of

Australian secondary school students, Upton et al. (2023) found that levels of depression and anxiety increased during the pandemic, but help-seeking did not. That at least one participant in this study did not feel comfortable in turning to her most direct sources of support suggests the need for greater awareness and accessibility of mental health support both within and outside the family.

Another student, Ketifa, expressed a number of concerns as a result of the impact that online evaluation had on her grades, describing anxiety which she connected to online learning:

> *Grading pressure is the thing that worries me. It is the time before the exam because I do not understand some of the lessons, especially mathematics and science. I want to see the teacher face-to-face while she explains on the board . . . All exams are held online via the platform, and I am always worried that I'll forget to choose an answer and go to the next page without answering. The reason is sometimes poor internet, or the page would not accept going back to the previous page.* (C15)

The enforced switch to online learning, compounded by platform issues and the absence of direct teacher support, increased students' anxiety about academic performance. Lessard and Puhl (2021) found higher levels of anxiety related to academic focus among 11- to 17 years old during the period, particularly among high school students, alongside feelings of receiving less support from teachers.

However, many other students felt that COVID-19 did not affect their mental health, as one student stated:

> *My happiness was excellent and had no effect, frankly.* (A14)

They took the situation positively and invested this time in practising their hobbies while staying relaxed. For instance, Gamila shared that:

> *At first, we were not used to sitting in our houses. I was used to going out to malls and cafes, but then I felt we got used to it. We tried to adapt to the situation, for example, by engaging in different at-home activities such as reading, crafting, working out, learning new skills, or*

doing anything that could help us have some sort of normalcy and provide relaxation during these challenging times. (E14)

The initial impact of the pandemic and the subsequent lockdown had a significant impact on the mental health of the participants in this study, and the prevailing sentiment among participants during the early stages of the pandemic was one of apprehension and worry. Participants indicated an initial concern for their personal health and uncertainties about their educational future. These anxieties reflected the broader sentiment found in other studies. Studies across different contexts, such as those by Pieh et al. (2021), Meng et al. (2020), and Zhou et al. (2020), consistently found high levels of depression and anxiety, with distance learning and concerns about personal and familial health being significant contributing factors. In this context, it is unsurprising that students in this study expressed feelings of fear, anxiety and depression.

Participants frequently indicated that one of the ways the pandemic impacted them was feeling worried about their personal physical health. For instance, Jalila stated that she "*was afraid to get the infection, that the Coronavirus will come to us*." This feeling of being afraid of an unknown disease was also identified in other studies, alongside a rise in anxiety and depression, with higher rates for depressive symptoms (Dodd et al., 2021; Kohls et al., 2021; Pieh et al., 2021). While Pieh et al.'s (2021) study highlighted concerning mental health issues among a broad population during the early stages of the pandemic, this degree of mental health distress was not mirrored in the current study's participants. Despite the challenges and widespread impact of the pandemic, some students in the present study were able to find ways to cope and maintain a positive outlook, such as engaging in hobbies or relying on their faith.

5.2.7 Wellbeing

A significant area of concern for students was the potential impact of the lockdown on their education and a sense that they would not flourish. For example, Nafisah voiced her concerns about graduating from middle school without sufficient knowledge due to the limitations of distance learning, stating:

I was afraid that COVID-19 would continue and that I would graduate from middle school remotely. I did not like this situation, and I felt like I did not understand anything. I did not want to graduate without having enough knowledge from school. (G15)

Nafisah's fear that she would graduate without having gained the full benefits of school education reflects a concern that she would fail to flourish and achieve her full potential.

Other scholars found the same concerns among students during the pandemic. Soest et al. (2020) considered lower secondary school students in Norway, finding that a high proportion of both boys and girls experienced a significant reduction in wellbeing and life satisfaction during the pandemic, which the authors attribute to restrictions on activities which encourage a sense of wellbeing alongside fears about the virus. Dodd et al. (2021) found similar results among higher education students, with a survey conducted among 787 university students in Australia. The authors pointed out that "Overall, 34.7% of students reported a sufficient level of wellbeing, while 33.8% showed low wellbeing and 31.5% very low wellbeing" (p. 1). These findings indicate that a significant portion of the student population was experiencing varying degrees of less-than-optimal wellbeing.

However, although the students in this study expressed concerns about lower levels of wellbeing during the early stages of the pandemic, over time, students adapted to the new circumstances and employed various strategies to overcome the unexpected challenges. Many students found solace in various coping strategies to navigate the challenges brought about by the lockdown. For example, spending time video calling friends, sharing feelings, and providing support for one another were crucial in maintaining a sense of connection and social support and enhancing social wellbeing. As Nafisah expressed:

My friends and I would video call each other, and we would talk about our feelings and support one another. It really helped to know that we were all going through this together. (G15)

Spending time with their families and friends, sharing their feelings, and receiving support and encouragement played a crucial role in promoting their wellbeing, as students felt understood, supported, and not alone in their experiences.

As with many participants, the lockdown initially had a negative impact on Gamila, who reported that she eventually adapted:

> [The pandemic] *impacted my overall happiness at first, but I adapted and did not feel sad anymore.* (E14)

Moreover, Jesenia shared this perception:

> *Maybe it was strange for us in the beginning, and I was not able to see all my friends, but then I adapted. It is still better for me to go to school, thank God. I never want to go back to distance learning. My family was always there for me, and we spent quality time together, which made me feel supported and cared for*. (F14)

In a similar manner, Nafisah said:

> *I was upset and sad. The reason was that I could not meet my teachers and friends, but sometimes there were happy moments.* (G15)

These responses emphasise contact with family in maintaining social wellbeing despite the limited contact that could be enjoyed with friends.

Although a number of students experienced negative feelings about themselves and their situations during the early days of the pandemic, a substantial number of students coped well with the lockdown and were able to maintain their wellbeing from the outset. This is evident from the following excerpts from their interviews:

> *It never affected my happiness level or my psyche.* (D13)
>
> *Not at all. I continued working.* (F14)
>
> *My happiness level was somehow affected, but my ability to work remained the same.* (B14)

The latter responses describe an ability to continue working, a maintenance of function connected to the sense of flourishing central to wellbeing.

Self-determination theory (SDT), which focuses on how wellbeing, in terms of flourishing, is related to a sense of effective functioning (Deci & Ryan, 1985), can provide a theoretical lens to interpret these findings. According to SDT, the extent to which any of the three psychological needs which influence wellbeing (autonomy, competence, and relatedness) are not met or are obstructed within a social context can have a significant adverse effect on an individual's wellbeing in that particular environment (Ryan & Deci, 2000). Thus, SDT helps explain the effect of the lockdown on the students in this study.

From an SDT perspective, and because the pandemic and the enforced lockdown changed all the typical learning conditions, the students, teachers, and families found themselves immersed in an environment that was unfamiliar to them. Consequently, during the early period of the lockdown, the students' sense of autonomy, competence, and relatedness was weakened by the radical challenges of being forced to remain at home and immediately begin online learning. Maintaining self-discipline and motivation during this time represented a barrier that students had to overcome. This study showed that student motivation, self-discipline, and autonomy experienced an initial setback, which gradually improved as students adjusted to the changes.

5.2.7.1 Home Context. During the lockdown, the usual classroom learning environment changed, and the home environment became the new primary setting for study, rather than a place for homework alongside in-person education.

The interview data revealed that the learning context, especially the family structure, was associated with students' perceived academic achievement during COVID-19. Living conditions conducive to studying, such as the presence of family members and family support, especially from mothers in terms of study, played an essential role in shaping participants' learning experiences. Alongside this, engagement in collective leisure activities enhanced students' sense of closeness

and connection to family. Moreover, this was felt in two different ways: 1) family support and 2) religious faith. Therefore, the presence of family members formed an important part of the support system for the learning process and for the participants' sense of wellbeing.

5.2.7.1.1 Family Influence and Academic Achievement Amid Pandemic. The term' personal social network', refers to the network of human relationships, encompassing family, friends, mentors, and educators, that individuals can rely upon during times of difficulty (Cochran, 2008; Singh et al., 2020). While in lockdown, students indicated that they lived with their immediate family members (parents, brothers, and sisters), as they rarely if ever had friends or extended relatives visiting (MOH, 2020). As discussed above, this increased physical proximity led to more frequent family interactions, including religious practices and study sessions, which became central to students' daily lives.

Students in this study often commented on interactions with their siblings as having impacted their studies and learning during lockdown in various ways. For example, a few participants reported that their siblings and cousins helped them with their studies:

> *My sister helped me a lot in Mathematics… she explained the lessons to me.* (A15)
>
> *My cousin who lives in the upper apartment of the building was explaining to me what I did not understand before the exams.* (E14)

In addition, Nafisah mentioned that:

> *I always ask my sister to help me with an assignment.* (G15)

Thus, for some students, siblings were helpful, for instance, an older sister explaining content to them. However, for others, siblings were a source of distraction. This unhelpful effect was expressed by Jesenia:

> *My younger siblings often make noise during the online lessons while we were in lockdown. It was embarrassing for me. To minimise distractions, I would close the door, but sometimes they would playfully knock on the door*. (F14)

These responses indicate that the home learning environment was conducive to studying, and that family members could be helpful as long as students could access a study space and were not interrupted or distracted.

This study highlights the substantial influence of collective culture and familial dynamics on remote learning experiences. Students in this study tried to perform in a completely different learning context through a very different online learning mode. These can be considered as two significant changes in the usual manner these students were accustomed to learning. However, being surrounded by their family members also enabled their mothers, and in some cases also fathers, to be more present in the learning process of their children. The significance of family support is reflected in interviewees' responses, as most agreed that their mothers (and some viewed their fathers alongside their mothers) were the greatest support, particularly in helping them to understand their lessons. For example, when asked about support with their classwork, Abida remarked,

> *I lived with my mother and grandmother, and my mother was very supportive*. (A15)

Another student, Ketifa, said:

> *My mother used to explain to me when I did not understand a question until I understood it.* (C15)

Jalila said:

> *I received support from my mum and dad; they explained lessons to me that I did not understand*. (B14)

Farida mentioned:

> *My mother explained lessons to me, and my parents provided devices and everything I needed. They encouraged and explained things to me.* (D13)

Jalila remarked:

> *During the lockdown, my parents were more attentive to my academic needs, they [explained] concepts I found challenging, and encouraged me to stay focused on my studies*. (B14)

Consistent with literature (e.g., Carrión-Martínez et al., 2021; Magson et al., 2021; Zhu et al., 2021), these networks have been shown to serve as a valuable source of both academic and personal help, providing explanations that not only clarified concepts but also alleviated the students' distress and contributed to a sense of emotional wellbeing while shaping their cognitive and emotional responses to the challenges of the pandemic. The collaborative efforts of parents, older siblings, cousins, friends, and teachers contributed to enhancing the wellbeing of these students.

Nielsen et al. (2017) have found that effective support systems play a crucial role in shaping individuals' perception of their ability to overcome difficulties. They illustrated that the presence of robust support systems corresponds to greater psychological fortitude among individuals. By tapping into the emotional and practical resources offered by their support networks, individuals can build a strong foundation for psychological resilience, effectively weathering the storms of adversity. Their study posits that these support systems not only offer tangible aid but also serve as a catalyst for shaping individuals' psychological outlook, ultimately contributing to their overall wellbeing.

The theme of family gathering emerged from the open-ended survey responses, and the theme of family support was identified in the semi-structured interviews, providing a consistent link between the two sources of data. The findings from the survey highlighted the profound impact of the lockdown period on family dynamics, revealing that extended time spent together at home fostered stronger bonds and increased quality interactions among family members.

Interviews revealed how the physical proximity and continual presence of family in the home led to beneficial interactions, such as explanations of lessons, but also potential challenges, such as distractions from siblings. Participants expressed the significance of religious practices in enhancing spiritual connections within families. These findings were further supported by the interviews, where participants shared their experiences of family cohesion during the lockdown.

The survey data provided a broader perspective, while the qualitative interviews offered deeper insights, both converging to demonstrate the crucial role of family support, shared activities, and religious practices in shaping students' responses to the challenges of the pandemic.

5.2.7.1.2 Engagement in Leisure and Collective Activities. In addition to the family support and contributions to academic learning, another aspect where family played a constructive part was in facilitating leisure and collective activities during the lockdown period. Several participants reported on the variety of their leisure activities, such as playing online games, watching videos, and movies using their mobile phones:

I watch movies and talk to my friends via phones. (A15)

Games, movies, and electronic graphics. (D13)

Most of all I do is social media. (B14)

Nonetheless, others reported they developed collective activities, including religious celebrations:

On the Eid, when there was distance [learning], we organised activities and celebrated at home. (G15)

We spent a lot of time on social media apps, games with the family in particular. I mean, I played lots of games with my family at home. (C15)

These engagement patterns were not only a means of entertainment but might have also played a significant role in enhancing the respondents' overall sense of wellbeing. As already described, the respondents engaged in various online activities, alongside taking online classes. These social media and online game activities may have provided a source of entertainment and relief for them, reducing the sense of boredom, during the lockdown period, and also helped them socialise with friends and family members, potentially contributing positively to their wellbeing.

James et al. (2023) suggested potential positive effects of reduced stress and improved social connections through online activities during the lockdown. Their findings align with the participants' reported experiences of enhanced wellbeing and socialisation through digital platforms. Further, King et al. (2020) noted the potential benefits of online gaming as a social activity and a significant increase in social video game play during the stay-at-home period, particularly as a means of maintaining contact with friends and co-workers. This trend could contribute to positive wellbeing outcomes through a reduction in stress and loneliness, although King et al. (2020) also consider that effective gaming may be problematic for mental health.

5.2.7.2 Religious faith. The theme of religious growth emerged consistently across both the open-ended survey responses and the semi-structured interviews. The findings from the survey highlighted the association of religious practices on participants' wellbeing and coping mechanisms during the pandemic. Participants expressed the benefits of increased time for religious activities, the celebration of religious holidays, and a deeper connection with their faith. These findings were further supported by the interviews, where participants shared personal experiences of finding solace, patience, and resilience through their religious beliefs. The interviews also revealed the role of teachers in reinforcing the importance of faith and connecting religious lessons to the pandemic as an example of patience. By combining the insights from both, the survey and the interviews, it was evident that the theme of religious support consistently emerged as a significant factor contributing to participants' wellbeing and their ability to cope with the challenges of the lockdown.

Religious practices provided students with renewed faith and hope, promoting inner strength. Some students found strength in their belief in God, a belief in a higher authority that empowered them. Religious faith and culture seemed to play a crucial role in supporting the mental health of these students. For instance, Ketifa, after some initial anxiety, said she felt better:

> *I was worried, but I had confidence in God. I no longer feared what God had in store for me. I accepted it. Honestly, I had no great anxiety.* (C15)

Another participant, Jalila had a similar response:

> *At first, I was sad, but then with time, I knew that online learning is okay, and I felt at ease. Everything is okay, I trusted Allah, Praise be to Allah*. (B14)

For these students, it was common to express their faith by using the phrase "Praise be to Allah," (Arabic: *Alhamdulillah* ٱلْحَمْدُ لِلَّهِ) highlighting the significant role of their religious beliefs in helping them cope with adversity. Therefore, due to their religiosity, the majority of students exhibited patience, faith, and acceptance of God's decisions, embracing the will of Allah without expressing discontent or sadness, all of which supported them in overcoming the challenges of lockdown.

In one of the number of studies emerging to have considered this relationship directly during the pandemic, Thomas and Barbato (2020) results showed positive religious coping (defined as the use of religious practice as a coping strategy during stressful events) to correlate with lower levels of mental health problems, particularly among Muslim respondents. In Brazil, Martins et al. (2023) similarly found that positive mental health and higher wellbeing were associated with religious belief and practice.

The results of this study support these findings, as many respondents perceived that their Islamic religious beliefs were a source of support to help them cope with the lockdown situation, with several noting that religion helped them to be patient and lessened worry, with one respondent specifically relating increased patience and motivation related to the shift to online learning:

> *Islamic religion helped me a lot. When I felt that I did not understand the lesson and did not know how to do an assignment, I told myself, no, I must be patient and I must strive and work hard and that after that I will reach what I want*. (A15)
>
> *Yes, everything is in the hands of Allah, Praise be to Allah, so I don't get worried I rely on Allah.* (B14)
>
> *Our religion urges us to be patient*. (G15)

It made me more patient. (H15)

These responses suggest that for some students, perseverance was enabled by their religious faith, which provided support for their wellbeing and ability to cope, which in turn helped them to focus on their studies. Ketifa noted that despite not being able to attend the Tarawih prayers or the Eid prayers, she found solace in praying at home and focusing on her religious faith:

> *It had such an effect that we could not pray Tarawih at Mosque in Ramadan, we could not go to the Eid prayer. It was sad seeing Holy Mosque in Makkah empty during lockdown. We had a lot of free time. We used to pray more at home and pray to God; religious belief helped help me to be patient*. (C15)

The participants' responses indicate that religious beliefs were crucial in maintaining patience and coping with the lockdown. Religious practices provided comfort, strength, and encouragement to persevere through challenging times. While parental support was the primary source of assistance, many students emphasised the positive impact of their faith on their wellbeing, which helped them navigate the pandemic's difficulties.

Teachers also played a role in reinforcing the importance of patience and faith in God's decree and destiny, connecting religious lessons to the pandemic as an example of patience and coping. In the current study, participants reported that teachers played a strong role in encouraging faith and perseverance during the lockdown. For example, Gamila said:

> *At the time of the pandemic, the teachers were reminding us of patience, especially in the subjects of religion; they linked the religion lessons to the pandemic as an example of patience and faith in God's decree and destiny*. (E14)
>
> *Praise be to Allah. The teachers used to say the prayer is on time and should not be delayed, and we must be patient with the disease and, Allah willing, the grief will go away, Praise be to Allah.* (F14)

During classes on the (online) platform, teachers often played religious awareness videos that I actively listened to, (and) this helped me continue learning. Praise be to Allah. (F14)

Through "curriculum content standards, leadership, commitment, and togetherness" (Munawaroh et al., 2023 p. 2107), teachers in Islamic cultures play an important role. In a study of teachers and students, teachers were found to be effective role models positively influencing their students, including through religious practice, while low levels of parental support had a negative impact on the students' development of characteristics such as discipline and tolerance (Munawaroh et al., 2023).

The importance of religious faith was mentioned as being a refuge and support in the adverse circumstances these students were experiencing. These religious moments allowed students to re-discover peace and inner strength to face the vicissitudes presented by the pandemic:

I am reminded by my belief in Allah that learning is a form of worship, and that inspires me to actively pursue my education despite the odds. My religion helped maintain my drive to excel, thus positively impacting my learning. (H15)

It is in this sense that religious activities provided opportunities to reinforce the students' commitment to support their academic performance.

In this study, the frequency with which interview respondents mentioned patience arising from religious faith as key to their coping and ability to focus on study underlines these previous findings on religious faith as a mitigating factor against reduced wellbeing and poorer mental health, and suggests that, alongside family support, religion was an important factor in protecting them from the potential negative effects of the pandemic on academic performance.

5.2.8 Conclusion

The interviews provided insights, including the unique challenges students encountered during the transition to online learning, such as internet connectivity issues and difficulties

understanding instructions. However, it was found that the support from family members, family gatherings, personal development, and religious practices were powerful external influences helping to build student wellbeing, which may have been a protective factor against depression and anxiety as suggested by Mofatteh (2021). The study by Mofatteh (2021) found that having a supportive social network, such as a quality relationship with family and friends, could influence students' social and emotional wellbeing and subsequently decrease the likelihood of experiencing anxiety and depression at university. To balance fears, anxiety, and depression, the students in Mofatteh's (2021) study relied on certain environmental factors around them that provided them with security and enhanced their perception of academic achievement. These factors included the family as part of their support system, teachers, and personal religious practices. The qualitative findings of this study support the importance of these factors.

Further, a crucial revelation was the emergence of adaptation and self-regulation as significant responses amidst these challenges in the drastically altered learning environment. While many students initially had negative feelings and experiences with online learning at the beginning of the lockdown, they reported that they adapted to the new conditions, including the new form of distance regulation and a reliance on digital rather than in-person communication with friends and peers.

Study participants also reported self-regulation in their educational activities, with several reporting that they learned greater independence and increased their ability to focus as the lockdown progressed. These findings thus align with key principles of social cognitive theory, which sees a sense of agency, or the ability to influence one's own environment, as an important element of motivation and achievement (Schunk & DiBenedetto, 2020). It is also notable that many students attributed their ability to adapt and maintain performance and wellbeing to their religious faith. These emerging interview results shed light on additional aspects of the topic, and when considered in relation to the quantitative results, are crucial to fully understand the experience of Saudi students during lockdown.

5.3 Reflexivity

In qualitative research, reflexivity is an ongoing process through which researchers critically analyse how their subjectivity and context affect their work (Olmos-Vega et al., 2023). Reflexivity acknowledges and values the subjectivity of the researcher and seeks to understand how this subjectivity influences the research process. Unlike quantitative research, which works to uncover objective truths (to the extent possible), qualitative research has subjectivity at its core (Patnaik, 2013), and researchers rely on reflexivity to navigate nuance and perspective in the complex process of generating meaning from experience (Olmos-Vega et al., 2023). Failure to engage in reflexivity can lead to negative consequences, such as a failure to consider the power dynamics between interviewer and subject, and may compromise data as well as potentially harming participants (Olmos-Vega et al., 2023). Therefore, reflexivity is essential to ensure ethical practice and robust findings.

As an insider-researcher with a background in teaching, particularly as a middle school teacher, I possess valuable insights into the perspectives and experiences of students. These insights were especially beneficial when conducting research on mental health, wellbeing, and student achievement during the COVID-19 lockdown in Saudi Arabia. Moreover, I was acutely aware of my positionality as an insider-researcher and constantly cognizant of the need to approach the study with objectivity, avoiding preconceived notions or assumptions about any aspect of the research.

This approach aligns with Ide and Beddoe (2023) recommendations for reflection, emphasising questioning, analysis, and evaluation of thoughts, emotions, and experiences in all research activities. Therefore, through reflexive practices such as the questioning of my own ideas, feelings, and observations, and adherence to rigorous research principles, I strove to mitigate any potential bias and maintain the integrity of the study.

For example, as a Saudi woman immersed in a culture where religious beliefs and practices hold significant importance, I made a deliberate effort to critically assess any inherent religious

biases that might impact the research outcomes. Considering a situation where, for example, I personally believe that regular prayer significantly enhances wellbeing, through active engagement in reflective processes involving questioning my perspectives and evaluating potential biases related to religious beliefs, I aimed to maintain the ethical standards of qualitative research. This self-awareness and critical evaluation of religious biases formed the basis for upholding objectivity and facilitating an encompassing and unbiased exploration of the study subject within its cultural framework.

One of the challenges I faced was maintaining objectivity, particularly when I was interviewing students about their experiences with religion and family dynamics. To meet this challenge, I applied the practice of reflexivity detailed earlier, adhering to a consistent and rigorous discipline of self-questioning and evaluation throughout the research process. This conscious engagement with my own subjectivity and influence on the research findings reaffirmed my commitment to uphold objectivity within qualitative research, adding another layer of depth to my understanding of the significant role of religion in the participants' lives. The analysis highlighted the significant role of religion in the lives of the participants, of which, as a Saudi woman, I had a solid understanding.

This reflexivity process enabled me to objectively evaluate, comprehend, and interpret participants' perspectives on family, religious belief, and life during the pandemic lockdown, while increasing my mental health literacy and awareness. According to a recent Saudi National Mental Health Survey (2019), the prevalence of young Saudis in the age group of my study sample who met the criteria for a mental illness was 40% or 2 in 5 young people. Thus, my awareness of mental health concerns among young Saudis was critical and, in addition to my position as a teacher, allowed me to create a safe, sensitive, and supportive space for the students to share their personal experiences during lockdown by being transparent about the purpose of the study and ensuring that our interactions were conducted in a respectful, empathetic, and non-judgmental manner. I acknowledged their vulnerability, respected their privacy, and assured them their feelings and

concerns were valid and confidentiality was maintained. The shared cultural and linguistic background further helped in building a rapport with the students and enabled open and honest dialogue. According to Kutcher et al. (2016), such mental health literacy leads to more accurate, comprehensive, and meaningful results.

In addition, to reveal more about how the participants responded to the pandemic lockdown, I explored other external factors in greater depth, such as family structure, cultural context, religious practices, and gender dynamics within the home. For example, I examined the changed circumstances of religious worship and gender segregation, which happened during the pandemic lockdown when mosques were closed. Muslims normally pray (*salat*) five times each day and there are additional religious obligations during the year. The prayer ritual, which is over 1400 years old, can be conducted anywhere, but is most often done at a mosque, as congregational prayer is considered to be of more spiritual and social benefit than prayer done in isolation. In the mosque, men and boys pray in one room while women and girls pray in a separate room (Al-Khraif et al., 2020; Binmahfouz, 2020). Needless to say, these communal prayers form an essential fabric in Islamic communities across Saudi Arabia from capital cities to the smallest villages.

My research revealed that previous practices of gender separation of Muslim families worshiping communally at a mosque were disrupted when lockdown prevented gatherings outside the home. I discovered that within the home, both female and male family members—husbands and wives, sisters and brothers—tended to worship together, highlighting the increased significance of family cohesion during lockdown. The religious values I shared with these families helped me to appreciate and understand the importance of their religious beliefs and reliance on family and faith. Several participants remarked on the importance to them of family prayer, which they said was uplifting and supportive of their patience.

As advised by Almalki and Ganong (2018), during the data analysis, I carefully considered the participants' discussions about their families, drawing upon my own experiences and understanding of family dynamics in the Saudi context. Similarly, when the topic of religion was

raised, I could relate to it based on my knowledge of the religious context and its importance in my own beliefs. These personal connections informed my approach to data analysis, ensuring that I maintained objectivity by consciously acknowledging and managing my personal perspectives and beliefs. This involved implementing strategies to prevent my beliefs from unduly influencing the interpretation of data while still acknowledging and considering aspects that held significance for me.

By acknowledging these challenges and reflecting on my own positionality, I aimed to minimise bias and ensure the credibility and dependability of the study. I continually monitored not only my own assumptions but also the potential impact of cultural, personal, and experiential influences on my interpretations. For instance, I scrutinised assumptions related to the perceived relationship between religion and wellbeing or familial dynamics, ensuring that these assumptions were interrogated and verified through multiple perspectives and theoretical frameworks.

Furthermore, in pursuit of a well-rounded analysis, I actively sought alternative viewpoints to enhance the objectivity of the research process by engaging in discussions with colleagues and supervisors which further facilitated critical reflection and minimised potential biases. An example of this involved collaborating with colleagues from diverse backgrounds to challenge my interpretations and consider differing viewpoints on the relationship between family dynamics, religious practices, and mental wellbeing. This process of seeking alternative perspectives not only enhanced the rigor of the research but also broadened the scope of the study, enriching the analysis and deepening the understanding of the complex interplay of factors affecting the participants' experiences.

Importantly, my competency in Arabic was instrumental when communicating with the students, enabling me to understand their perspectives more deeply. I regularly conversed in Arabic with the participants, ensuring that language barriers did not hinder the collection of rich and nuanced data. As the participants primarily expressed themselves in Arabic, my fluency in the language allowed me to capture their authentic experiences and accurately convey their sentiments.

Additionally, when interpreting their narratives, I ensured that Arabic terms, especially those related to religious concepts and cultural nuances, were accurately translated to capture the participants' intended meanings. For instance, when the participants used the Arabic word "إيمان" (Iman), I interpreted it as "faith" in a religious context, reflecting their religious beliefs and practices.

While my Arabic language proficiency greatly aided communication and interpretation, it also posed certain challenges. Some participants used colloquial expressions and idiomatic phrases that required careful interpretation to accurately convey their intended meanings in English. For instance, a participant might use the expression "الحمد لله على كل حال" (Alhamdulillah 'ala kulli hal), which literally translates to "Praise be to God in all situations". This is a common phrase used in Arabic-speaking cultures to express acceptance and resilience during challenging times. It could be used to convey gratitude, acceptance, or even frustration, depending on the context. Though the literal English translation could capture the religious aspect ("Praise be to God"), it may not entirely convey the depth of acceptance, and context-dependent nuances of the phrase. This challenge highlighted the need for cultural sensitivity and an understanding of linguistic nuances to ensure precise data representation.

Furthermore, my fluency in English was essential for conducting interviews and analysing data in a coherent and comprehensive manner. The bilingual nature of my research allowed me to bridge the gap between participants' native language and academic discourse, enabling a more accurate and culturally attuned exploration of their experiences.

Overall, the reflexivity process enabled me to navigate the complexities of the research, maintain ethical standards, and produce a comprehensive understanding of the experiences and perspectives of middle school students in Saudi Arabia during the COVID-19 lockdown.

5.4 Study Rigour

In seeking to ensure the credibility and trustworthiness of the findings, feedback was obtained from a select group directly impacted by the phenomena under study (see Chapter 3,

Section 3.10). The themes discovered in the research were shared with this group in the KSA, comprised of five middle school students aged 15 to 17 (four females and one male), as well as three mothers of these students. Their responses provided additional insights which enriched the study's understanding.

The feedback received helped reaffirm the prominent themes discovered such as the importance of family support, spiritual support, and effective online learning with respondents agreeing that such elements were indeed reflective of their experiences. One female student, aged 16, agreed, "*Yes, I agree that the family's ongoing support has been crucial for staying focused on studies*." Another female student, aged 15, added, "*Yes, the spiritual guidance I received offered comfort and strength during challenging periods*."

Further, students recognised the themes of initial anxiety, struggles with adapting to a new learning platform, and the impact of the sedentary lifestyle forced by the lockdown as being exceptionally reflective of their own lived experiences. A male student, aged 17, expressed agreement, "*Yes, I agree adapting to the new learning platform was a real challenge*", in addition "*The feeling overwhelmed, unsure of what was to come each day is true*".

Mothers revealed corroboration with themes related to household distractions and the amplified need for improved teacher communication and effective online instruction methods. A mother emphasised, "*Yes, I agree that the household distractions were quite challenging to manage, impacting our focus and study routine*." The mother said there is "*A greater demand for enhanced assistance and support from teachers in setting up an effective and comfortable online learning environment, thereby enhancing the academic experience during remote learning.*"

Further, one of the mothers suggested, "*Adding greater emphasis on the role that parents played in supplementing academic support during the online learning process*", thus contributing to the theme of family support. A female student, aged 16 noted that, "*Despite initial struggles, many of my peers found the online learning experience enriching due to the ability to learn at their own*

pace". This feedback was noted and can contribute to the understanding of self-regulated learning under online conditions.

This approach for checking the credibility of study findings has augmented the primary themes discovered, grounding the findings in the lived experiences of the participants. It has thereby reinforced the credibility and trustworthiness of the study, demonstrating the research's commitment to accurately representing the experiences of middle school students during the COVID-19 lockdown and the consequent shift to online learning.

5.5 Conclusion

The analysis of the open-ended question about students' best experiences during the lockdown, guided by the theoretical framework of this study, revealed the positive aspects of the lockdown, including family gatherings, religious growth, and personal development. Family time, enhanced through activities such as religious practices (for example, family group prayers), shared household tasks, and leisure activities (for example, recreational games with their family), contributed to the lockdown experience, potentially fostering family cohesion and students' wellbeing.

In addition, religious growth, such as deeper engagement with the *Holy Quran*, emphasised faith's role as a coping mechanism and strength source during the pandemic. The amplified patience and focus of the students, particularly in academic pursuits, attest to improved coping strategies and wellbeing. Their spiritual connection and personal relationships with God were also evident during the pandemic, which served to provide emotional support, personal growth, and positive mental health in spite of the challenges they faced.

Likewise, during the lockdown, students engaged in a variety of self-development activities, which encompassed learning new skills and fostering personal growth, such as sewing, cooking, learning new languages, and managing tasks more efficiently. This focused self-development instilled a sense of self-reliance, competency, and adaptability among students, further

corroborating the principles highlighted in the SDT and SCT. The integrated factors of family-related activities, religious growth, and personal development - rooted in Saudi culture - profoundly boosted participants' wellbeing. These factors fostered social cohesion and family support, contributing cumulatively to overall student wellbeing during the lockdown.

Further, participants described numerous negative experiences about their worst experiences during lockdown. The imposed stay-at-home lifestyle caused by restrictions on outdoor activities drove a surge in sedentary behaviours, such as watching television and playing computer games, negatively impacting their wellbeing, mental health, and focus on studies. This period of isolation in the home limited their ability to engage in outdoor physical activities, such as play, exercise or sport, and prevented face-to-face interactions with peers and teachers. This had an initial negative impact on the wellbeing and mental health of participating students, which was especially noticeable during the first online learning sessions of remote classes. The pandemic forced students to attend classes online, a condition to which many of them were unaccustomed or for which they had not yet developed appropriate digital resources and skills.

The interview data is consistent with the open-ended questions results regarding the impact of the home setting and family on the learning environment of the participants in this study. Most of the participants indicated that they spent a considerable amount of time with their immediate family members and experienced bonding through activities and religious adherence during lockdown. Study participants eventually viewed many aspects of the lockdown as positive, as it allowed them to strengthen their family bonds and religious adherence.

However, the participants of the study suggested some challenges with the Madrasati platform, internet connectivity, audio issues, issues with teachers' abilities in using the online platform, ineffective online communication, and feeling less visible to the teacher in an online platform, all of which might have impacted their learning negatively.

Changes in instructional practices impacted the ability of the students to understand instructions given by their teachers, while at the same time they reported on the limited feedback

they received on homework from their teachers, which was instead automatically provided by the Madrasati learning platform.

It was evident from the interview data that the participants developed some coping mechanisms to ensure that their online learning experience remained largely productive, including help-seeking from family members and friends. As a result, the responses from participants during the lockdown indicated their ability to cope, adapt, and exhibit resilience, as well as engage in self-regulated learning practices, by increasing their communication with friends and family.

Therefore, after the initial period of uncertainty, students became increasingly self-motivated and developed self-regulated learning practices. Within the study sample, the identification of these themes from the participants' responses suggests that the majority were able to adapt to the online environment to facilitate learning, although a few did not. Most of the study participants did not believe that the transition to an online platform negatively affected their overall wellbeing, mental health, or academic achievement.

Understanding whether students' academic achievement remains unchanged despite changing learning environments is crucial, especially in the context of the COVID-19 pandemic. The following chapter (Chapter 6) provides a discussion of the research findings and explains the current study's limitations. Chapter 7 presents the conclusion, addresses the wider implications of this research and provides recommendations for future research.

Chapter 6: Discussion

The abrupt transition to distance learning driven by the closure of schools during the COVID-19 lockdown introduced a complex array of potential challenges for Saudi students, with implications for their social, emotional, and academic development—key issues for young people's successful advancement into adulthood (Champeaux et al., 2022; Cortés-Albornoz et al., 2023). This study sought to assess the effects of the COVID-19 lockdown, and specifically the transition from a physical classroom to virtual learning, on the academic achievement of Saudi middle school students by addressing the following research question: "How are wellbeing, mental health (depression and anxiety), demographic background, and the amount of schoolwork associated with perceived academic achievement for middle school students during the COVID-19 pandemic lockdown in KSA?"

Study results indicated that wellbeing, gender, and the family's SES significantly predicted perceived academic achievement (see Figure 4.4, Chapter 4). Unexpectedly, however, depression

and anxiety did not demonstrate significant associations with perceived academic achievement. Likewise, schoolwork involvement and age did not exhibit substantial associations with perceived academic achievement. The unexpected results could perhaps be attributed to the exceptional adaptability of the students, and to the crucial role of family support and religious faith—factors further explored in the subsequent sections of this discussion.

Of significant interest was the unexpected lack of impact of the lockdown on perceived academic achievement. Results showed that a substantial majority of participants perceived their academic achievement during the lockdown as either the same or better than that of their peers. This was observed despite the transition to the online learning platform, the Madrasati, which was criticised for various problems in its implementation (Aldossry, 2021). Family support played a pivotal role in maintaining performance levels, despite emotional challenges arising from limited social interactions with peers. These findings underscored the adaptability of the participants, suggesting a capacity on their part to navigate the learning transition effectively (Chapter 5, Section 5. 2.5.1), while also pointing to the importance of the family's role in underpinning student resilience and adaptability (Chapter 5, Section 5.2.7.1).

Moreover, the unexpected positive perception of their academic achievement among participants is possibly attributable to the adaptability of the majority of students in the study, most of whom were able to develop self-regulated learning strategies (Chapter 5, Section 5.2.5.2) and adjust to a new way of relating with teachers and peers (Chapter 5, Section 5.2.4.2). Although qualitative findings included criticisms of the online learning platform and the lack of face-to-face communication with teachers and peers, most students were able to adapt to new tools and channels and maintain forms of social, cognitive and teaching presence recognised as essential to an educational community of inquiry (Chapter 2, Section 2.3). Their ability to use digital technology aided this adjustment, as they could utilise technologies such as Microsoft Teams to communicate and gain support from both teachers and peers (Chapter 5, Sections 5.2.4.3 and 5.2.5.2). Despite the sudden move to online learning, the overall self-reported wellbeing of the students in the study

remained moderate to flourishing, a testament to their adaptability. Overall, these quantitative findings suggest that the majority of participants believed their wellbeing and academic achievement had not been severely affected by the restrictions they endured during the COVID-19 lockdown.

In terms of mental health, the majority of participants did not experience significant symptoms of depression or anxiety, although there were a few students who did report mild to moderate emotional distress, with an even smaller proportion reporting severe to extreme depression and anxiety. Most notably, issues with mental health as reported by participants in terms of depression and anxiety were minor. Quantitative results on depression and anxiety measured using the Depression Anxiety Stress Scale (DASS-21) (Lovibond & Lovibond, 1995) did not show a persistent negative impact for the majority of respondents (Chapter 4, Section 4.5). Mental health issues such as anxiety and sadness were reported as a negative consequence of lockdown in the open-ended questions results (Chapter 5, Section 5.1.2.2). Depression and anxiety were also reported by some interview participants, although others reported no effect on their mental health during the lockdown period (Chapter 5, Section 5.2.6).

The issues identified from the interview data exhibited considerable similarity to those identified from the open-ended survey items about the best and worst parts of being in lockdown. In particular, the interviews shed light on the beneficial impact of the home environment in supporting the students. Responses revealed the challenges of online learning alongside the ways in which students adapted, for example, by finding support from family members and engaging in personal development activities.

The responses of the participants to the survey instrument placed great emphasis on the amount of time students spent with their immediate families and how they bonded with their families through religious practices. Consequently, the participants predominantly viewed the lockdown as a positive period for strengthening family ties through a variety of family activities

(Chapter 5, Section 4.6.7.1) and, in particular, through religious adherence (Chapter 5, Section 5.2.7.2).

Analyses of survey responses revealed the development of a positive home learning environment, although the focus on the immediate family highlighted the limited contact the students had with friends and more distant relatives. Because of this lack of extended social involvement, the responses to the open-ended items showed that the students seized the additional time thus provided to engage in various activities that fostered self-development, including religious practices (Chapter 5, Section 5.1.1.2.2) and skills acquisition (Chapter 5, Section 5.1.1.3).

The overall objective of the study was to assist KSA educators and policymakers in understanding the impact of the pandemic on student learning and so to identify strategies to support students' academic progress in the event of future educational disruptions. Therefore, this chapter discussed how the findings can shape practical educational strategies and policy enhancements in KSA to better prepare for future disruptions.

6.1 Impact of Family, Religion, and Home Environment During the Pandemic

Both in responses to open-ended questions and in interviews, a significant factor arose not anticipated in the original research questions: the benefits of a closer relationship with family emerging during the period of lockdown. This factor, often related to religious practices in the family, appeared to mitigate some of the difficulties of that period and to have had a positive impact on wellbeing and perceived academic achievement while countering the feelings of poor mental health expressed in qualitative responses. Further, respondents reported the significant support received from family members in their adjustment to online learning. These findings suggest that family relationships should be considered a key factor when exploring the impact of the pandemic on the surveyed group, and informs the interpretation of the theoretical frames used in this study.

Based on the findings, it is evident that family support and religiosity play crucial roles in students' wellbeing and perceived academic achievement. Therefore, it is suggested that these factors be integrated into the theoretical framework to provide a more comprehensive understanding

of the study's results. The inclusion of family support and religiosity into the framework complements the existing theories and enhances the explanation of how these factors interact with students' academic outcomes.

By examining qualitative responses relevant to both wellbeing and mental health issues, it was found that support from family members, family gatherings, personal development, and religious practices were external influences helping to build student wellbeing, and which may also have been a protective factor against depression and anxiety. During the pandemic, family support has been found to offer an important form of support for mental health and wellbeing (e.g., Winkel et al., 2023; Li et al., 2021; Magson et al., 2021; Zhu et al., 2021). Other studies have found religious faith to have supported coping strategies and correlated with lower levels of depression and anxiety during the challenges of the period (Bamford et al., 2023; Martins et al., 2023; Thomas & Barbato, 2020). Pre-pandemic research had also suggested the role of religious faith as an important domain of wellbeing for adolescents (King & Roeser, 2009; Phillips, 2018); the present study supports this suggestion based on participants' frequent references to faith as a source of comfort which increased their feelings of wellbeing.

In the current study, factors such as family closeness and religious practice were identified as having a possible influence on the wellbeing, mental health and perceived academic performance of participants. In qualitative responses, participants often connected the beneficial effects of support from family with engagement in religious activities together, often in ways which were not possible prior to the pandemic due to the usual practice of women and girls praying separately from men and boys. This result shows the interaction between family gathering and religion in supporting the wellbeing of these students, while prompting further questions about which of these factors alone might be both influential and whether close family relationships and religious faith might provide benefits in isolation from each other. The significant number of students who reported receiving direct support from their parents in their academic work was also a noteworthy result, indicating the benefits of parental involvement in their children's education. This finding suggests

not only the importance of parental involvement during the pandemic but also the potential benefits of such involvement in less extreme circumstances. However, further research would be needed to investigate this suggestion.

6.1.1 Closer Family Relationships

Many students reported finding solace and experiencing improved wellbeing by spending time with their families during the pandemic lockdown, including shared household tasks and leisure activities enjoyed together. This theme emerged from both responses to the open-ended questionnaire, where subthemes identified included quality family time and activities during family gathering, and in the interviews, where participants remarked on the additional time spent with their families. Spending more time together not only brought families closer but also served as a coping mechanism during the challenging period of lockdown. However, it is important to keep in mind that these family relationships may not have fully alleviated the students' feelings of isolation. Despite the enhanced family dynamics and supportive interactions reported by the participants, the ongoing presence of feelings of isolation reported by some students implies that factors beyond family relationships likely influenced the students' emotional wellbeing during the challenging period of the pandemic. Further study of the ways the balance between peer relationships and family relationships during the pandemic would be necessary to illuminate the multifaceted nature of the factors contributing to the students' experiences of isolation and mental health during this time.

Prior to the pandemic, Fonseca et al. (2019) had shown that increased engagement in shared family activities and practices contributed to the strengthening of bonds between students and family members. The relationship between family bonding and wellbeing has been identified in other studies during the pandemic (Alfawaz et al., 2021; Silveira et al., 2022; Winkel et al., 2023; Youssef, 2021), as has the relationship between wellbeing and academic achievement (Jusienė et al., 2022; Soneson et al., 2023). The results of this study support these findings by suggesting that family bonding played a crucial role in enhancing overall wellbeing and fostering positive

perceptions of academic achievement. They indicate the likelihood that for many children of this age group, more time spent with family members, particularly in relaxed, unstructured activities such as games, can contribute to higher levels of wellbeing.

In the case of the students in this study, the shared family activities enhanced a sense of cohesion within the family unit. Family cohesion is a complex construct involving multivariate factors, such as a sense of belonging, trust, reciprocity, commitment, and shared norms and values (Fonseca et al., 2019). Hence, several recent studies, such as those by Sarour and El Keshky (2022) and Xiang et al. (2022), while not directly investigating the effects of the pandemic, have argued that there is a strong correlation between family cohesion and both emotional and cognitive wellbeing. This is because increased levels of cohesion enable families to support and provide more positive outcomes for their members while also increasing the group's ability to adapt and resist disruption, such as was experienced during the pandemic (Prime et al., 2020). Finally, it has been shown that family cohesion contributed to a positive sense of children's happiness and satisfaction during the pandemic (Soneson et al., 2023), a conclusion that was confirmed by a survey of Saudi parents, who strongly agreed that the pandemic had a positive social impact on family relations (Lardhi, 2022). These findings of previous studies, which support the connection between strong family relationships and adolescent wellbeing, resonate with the concept of reciprocal determinism in social cognitive theory, which stresses the interplay between environment, cognition, and behaviour (Bandura, 1986).

The combination of supportive family environments, effective online communication, and personal coping strategies may have contributed to the students' overall positive wellbeing despite the disruptive effects of the pandemic. In the case of the participants in this study, the supportive role of the family and an individual's adaptability appeared as key factors contributing to the (unexpected) positive levels of wellbeing, mental health, and academic achievement experienced by the participants.

6.1.2 Religious Practices

Participants emphasised the benefits of religious faith in supporting them through the difficulties of the pandemic period. These benefits were described both in terms of collective religious activities with their families, related to the theme of closer family relationships discussed above, and in terms of personal religious growth. In contrast to the traditional gender segregation of prayer in mosques (Mortada, 2003; Othman et al., 2015), prayer during lockdown took place within a space within the home shared by all family members (Zatari, 2021), and many participants found this change a positive experience supporting both their closeness with their families and their faith, particularly during religious festivals such as Ramadan and Eid.

Alongside the benefits of religious activities undertaken together with their families, respondents to the open-ended questionnaires and the interviews frequently mentioned the comfort and motivation brought to them by their personal religious practice. The theme of religious growth was identified in the responses to the open-ended questionnaire, where more time to study the Quran was described by several participants as a benefit of lockdown, as were feelings of greater closeness to God. Several students described their faith as beneficial for both their wellbeing and their ability to focus on their studies. Feelings that faith provided solace and enabled the difficulties of lockdown to be faced were also expressed by interview respondents. A significant number of interviewees described finding strength in their faith, which reduced their anxiety and enhanced their capacity for patience. For some students, the need to find patience in faith was supported by their teachers, who encouraged them to face the challenges of the pandemic with fortitude. The deep-rooted religious beliefs in Saudi culture may have played a significant role in nurturing students' wellbeing and fostering a sense of community and inner peace. This aspect offers a compelling avenue for further exploration into how children in such a religiously oriented society find faith particularly comforting, drawing strength not only from personal beliefs but also from the broader religious and educational frameworks that shape their worldviews and coping mechanisms.

The beneficial impact that religious practices may have had on students' wellbeing, anxiety levels, and self-efficacy, highlights aspects of self-determination theory and social cognitive theory. Ellison and Levin (1998) noted the complexity and varied mechanisms through which religious faith impacts behaviour and mental health, consistently correlating religiosity with positive mental health outcomes and coping with stress.

Both theories acknowledge how an individual's core beliefs and societal connections, in this case, religious practice, family ties, and overall home environment, can significantly impact their wellbeing and self-determination in the face of adversity, such as a pandemic. This concept is reflected in the reciprocal relations among family members aiding students during lockdown. The shift from mosque worship to home prayers exemplifies this reciprocal determinism and was emphasised in various qualitative responses, as was a sense of personal religious growth. Supporting this, Saleem et al. (2021) found a positive link between religious activities and mental health among Muslim university students, while Schieman et al. (2013) noted an indirect but positive association between religious involvement and reduced stress. Pre-pandemic studies similarly indicate that religious involvement contributes to higher levels of wellbeing, especially in stressful circumstances (Moreira-Almeida et al., 2006), a dynamic that is reflected in the current study.

Changes in the environment (lockdown, modified religious practices), cognition (faith, beliefs), and behaviour (family activities, adjusted religious engagement, study mode) may have contributed positively to students' wellbeing. Internal (e.g., peace from reciting the Quran) and external (e.g., supportive family) factors appeared crucial. This aligns with Avedissian and Alayan's (2021) findings that religious activities can provide adolescents with structured routine and a sense of purpose, crucial for wellbeing during times of uncertainty.

The participants' experiences align well with the principles of social cognitive theory, suggesting that family cohesion, religious practices, and personal growth could boost coping during crises and potentially enhance wellbeing and academic achievement.

Indeed, the deepened engagement with religious practices also aided in bolstering emotional support and promoting personal growth. Thus, in turn, contributed to positive wellbeing despite the trials faced by the participants. It also helped to prevent the mental distress in their qualitative responses from developing into clinical mental health issues and from affecting academic achievement.

The link between religious practices and wellbeing has been studied in previous research (Ela et al., 2021; Gartner, 1996; Park, 2005). Ela et al. (2021) found a strong positive association between faith, wellbeing and mental health, including the ability to deal with stressful situations. Cotton et al. (2006) and Nooney (2005) showed a similar association between religion and better mental health among adolescents. Studies during the pandemic found a similar association. Savitsky et al. (2020) affirmed that the sense of the threat of coronavirus was lower in people who developed regular religious practices; their results indicate that ultra-orthodox Jews perceived COVID-19 as a threat significantly less frequently compared to other Jews. The authors concluded that the threat experience is linked to the phenomenon of religious immunity—close family ties and close social support reduce the sense of threat among the ultra-Orthodox compared to other populations. Among adolescents, Bamford et al. (2023) found that those in families who considered religion important had higher levels of wellbeing during the pandemic. A large study of adolescents in the US found that religious faith had a protective effect on their mental health during the stressful period of COVID-19 (Dyer et al., 2023). These findings are reflected in the current study's discovery that most students did not experience significant negative impacts on their mental health or wellbeing during the period of lockdown, that religious practices and family gatherings were often reported by participants as beneficial for their wellbeing, and that perceived academic achievement was consequently more positive than expected for the majority of students.

Steinebach et al. (2019) suggested that from a pragmatic point of view, student participation with their families in religious activities could be considered affirmative action that serves as a coping strategy and creates a positive environment enabling students to enhance their wellbeing, and mental health. In this present research, some students drew strength through their faith or spirituality, engaging in practices such as prayer and reading religious texts, which provided them with a sense of calm and reassurance. This concurs with findings from Nimmi et al. (2022), who identified a link between spirituality and the wellbeing of management students in India, observing that spiritual practices like prayer and reading religious texts significantly influenced their psychological resources and life satisfaction. These results support the findings of this study in underscoring the potential value of supporting students' non-academic and spiritual needs, particularly in challenging situations.

It may be that it was not only spiritual faith that supported participant wellbeing, but also a sense of meaningful time utilisation, where engagement in religious activities provided them with a structured routine and a sense of purpose, contributing to their overall wellbeing amidst the uncertainties of the pandemic. This implication is supported by some research suggesting that feelings of optimism and a sense of autonomy are vital for adolescent wellbeing and that these factors are supported by engagement in activities as well as internal factors (Avedissian & Alayan, 2021). However, further research would be necessary to understand the role of religious activities within the frame of meaningful use of time.

To date, no studies have been undertaken to determine the extent to which Islamic teachings and traditional Saudi culture might have assisted in supporting students by providing moral guidance in difficult circumstances. Students reported that the moral teachings and spiritual underpinnings of Islam strengthened their resilience, suggesting that young people might have potentially been supported by their faith in enduring the isolation and difficulties of lockdown and still succeeding in their education. The potential of religion to support mental health in school settings was uncovered in a pre-pandemic study by Estrada et al. (2019), and as discussed above,

studies during the pandemic have suggested that the positive effect of religion on mental health was also a factor for some students during the necessary home-based education of that period (Bamford et al., 2023; Dyer et al., 2023).

The impact of religious, moral, and psychological support that students and their families had in the KSA context might have positively influenced the way in which the young people in this study were able to respond to the threat of COVID while maintaining a stable emotional condition and meeting the new challenges presented by a dramatically changed education system. Further research would be necessary to understand which of the benefits experienced by these students arose from religious practice itself, and which were derived from a broader sense of community and shared experience. This potential is supported by Estrada et al. (2019), who found that religion could support mental health in school settings, a finding echoed by studies conducted during the pandemic (Bamford et al., 2023; Dyer et al., 2023).

6.1.3 Greater Family Involvement in Students' Learning

Qualitative results, in particular the interview responses, showed that many participants felt they benefitted from family support for their education during lockdown. Students revealed that they sought their parents' help and discussed their academic subjects, such as mathematics, while some also found support from siblings and other family members. This result shows an unexpected benefit of lockdown for these students in the form of greater engagement from their families in their education.

Children whose parents are engaged and show interest in their learning tend to perform better academically, as indicated by prior research (Fan & Chen, 2001; Topor et al., 2010). Prior to the COVID-19 pandemic, parental involvement in KSA, particularly during adolescence, has been characterised by moderate levels of participation in school activities, such as writing and communicating with schools (Alharbi, 2017; Bahanshal, 2021). Barriers such as conflicting work schedules, the desire for their children to be independent, and responsibilities towards younger

children have been reported as reasons behind the reduced direct involvement (Alharbi, 2017). However, due to the shift to online learning and the family being at home together, parents appeared to have had a higher level of involvement in their children's education.

This result implies that parents and other family members were able to create an environment for the participants in which online learning was supported by in-person assistance and encouragement. Community of inquiry theory states that a positive online learning environment requires teaching presence, alongside social and cognitive presence (Garrison & Akyol, 2013). Teaching presence is understood as a visible teacher able to facilitate and direct social and cognitive presences (Wang et al., 2021). During the sudden shift to online learning necessitated by the lockdown, the responses of these participants suggest that, for many, their parents, particularly mothers, were able to direct and encourage their learning, providing to some extent a teaching presence which could have functioned as complementary support as students navigated the new learning environment.

Huber and Helm (2020) also identified parental support, along with other factors such as students' self-regulation skills, as an important factor supporting academic achievement during the lockdown. The similar finding in this study reinforces the key role that a supportive home environment can play in maintaining academic performance in extreme circumstances such as the pandemic. It also suggests that parental engagement in their children's education should be recognised as an important factor in academic achievement in a range of contexts.

In exploring alternative explanations for the observed results however, it is essential to consider additional factors that may have influenced the outcomes. Factors such as students' individual self-regulation skills, external support systems beyond the immediate family, or the quality of online learning platforms could be potential variables to investigate further to gain a comprehensive understanding of the academic achievements during the lockdown period.

Recommendations for future research may focus on conducting comprehensive investigations into these factors to determine their contributions to student outcomes. Additionally, exploring strategies to enhance parental engagement in education, developing effective online learning support structures, and promoting student self-regulation skills could be valuable recommendations to improve academic performance in various educational contexts, especially during challenging circumstances like the pandemic.

The study also revealed that the sense of family unity during the lockdown involved not only students' parents but also their siblings. Counter to the image of a house full of noisy children making studying nearly impossible, while some participants reported difficulties concentrating due to a noisy home environment during online tests and lessons, most of the participants in this study did not report noise in the home as a problem. This highlights the variability in students' experiences, with some finding the home environment disruptive, while others, supported by positive family dynamics, navigated these challenges more effectively. Evidence uncovered in the study sheds light on the complexity of the relationship between sibling interactions and academic experiences. Sibling interactions during remote learning could on occasion be distracting, with some students facing challenges, such as competing for devices and internet access with their siblings. However, others received support from their siblings and other relatives, which positively influenced their studies. Thus, qualitative results offer a nuanced understanding of how family dynamics and access to resources such as appropriate technology and a strong internet connection influenced students' academic experiences during the pandemic. Further, the familial 'teaching presence' that can be supplied by a supportive home environment and strong family relationships adds a new dimension to community of inquiry theory when considering students of this age group, highlighting the importance of social interactions in learning and academic success during the pandemic.

Siblings, alongside parents, likely played a significant role in helping students combat the effects of lockdown including the fear and anxiety ecaused by the pandemic. Their role aligns with

community of inquiry theory and social cognitive theory, which emphasise the importance of social interactions in learning and development. Social cognitive theory (Bandura, 1986) posits that the way a person functions is a consequence of the interaction between that person's environment, the way that person thinks and learns, and that person's behaviour and that a person's functioning is a result of that combination rather than one of those factors dominating (Nolen, 2023).

The results of the current study emphasise the importance of the students' relationship with the environment in which learning occurs. In this study, the home environment became the setting within which online learning classes were conducted, with most responses reporting the positive influence of parents and other family members on the students' wellbeing and academic achievement. In addition to pointing out the social and environmental limitations of the online learning model, the findings showed the importance of the familial social network in supporting the students' learning process and wellbeing during lockdown. Due in part to the family support, alongside the presence of religious faith, in the home environment, students generally reported positive perceptions of their academic achievement during the pandemic.

The results of this study suggest that the factors of closer family relationships, religion, and family support for learning interacted with positive effects for the majority of these students; future research would be required to achieve more clarity on which of these factors was the most important, and whether they might achieve similar positive results in isolation. Recommendations for future studies may include experimental designs or systematic literature reviews which aim to clarify the impacts of these factors on student outcomes in terms of wellbeing and academic achievement. For example, an intervention may be designed where different groups of students are exposed to specific hardships, with one group receiving support only in terms of family relationships, another group solely receiving religious support, and a control group receiving neither support. This approach could provide valuable insights into the individual and combined effects of family support and religious beliefs on wellbeing and academic achievement among students.

6.2 Students' Perceptions of their Academic Achievement

Over half of the survey participants perceived their academic achievement during the lockdown as better than their peers (see Chapter 4, Section 4.3). Qualitative results similarly showed that the majority of participants did not perceive a decline in their academic achievement during lockdown. It was anticipated that the pandemic and lockdown would negatively impact students' perceptions about their academic achievement. Instead, this study revealed that students were capable of maintaining or even improving their academic standards despite the adverse situation. As students were asked to judge their academic performance in relation to their peers, it was surprising that the majority considered that they were performing better or much better than others, raising the possibility that perception bias may have occurred. However, previous research, such as the earlier LSAY survey (NCVER, 2009, p. 41) discussed in Chapter 3, found perceived academic achievement to be a reliable indicator of objective achievement, with little evidence of perception bias. This unexpected finding therefore merits further investigation.

One possible explanation for this finding is the relatively high socio-economic status (SES) of the students surveyed. Selection bias might have led more students of higher SES backgrounds and with generally good mental health to participate in the study, influencing the results in that these students would be more likely to positively view their academic performance. A second possibility is that the high levels of wellbeing reported by these students, particularly in relation to family relationships, augmented their sense of academic achievement. These possibilities are discussed in the relevant subsections below.

The perceptions reported in the current study contradict findings from Cortés-Albornoz et al. (2023), whose systematic review of the effects of COVID-19 lockdowns on children's learning and school performance found that academic performance was generally negatively affected. They

reported lower scores in standardised tests compared to previous years and identified academic, motivational, and socio-emotional factors contributing to this lower performance. However, Panagouli et al. (2021) systematically reviewed studies on the impact of online learning and modified educational methods on academic performance during the pandemic among school-aged children and adolescents and found much variability in students' academic achievement during lockdown. Their findings, as was the case with the current study, revealed that learning experiences during this period varied considerably; some students experienced drops in learning compared to pre-pandemic years, whereas others, especially in mathematics, were able to reap benefits from the shift to online learning. More significant challenges were faced by younger pupils and those with neurodevelopmental disorders or special education needs. Panagouli et al. (2021) identified various factors including economic inequalities, teachers' skills, and student age affecting perceived academic achievement.

Other research has also suggested that SES, including access to resources such as a stable internet connection and appropriate devices to access online learning (Antipova, 2020; Stelitano et al., 2020), might be a particularly important influence on academic achievement during the pandemic. Alongside this influence, this study has found that the presence of family support could be beneficial for student wellbeing and perceived academic performance. The study was conducted in Mecca and Taif, two cities with income above the KSA average (Alanazi & Alnasser, 2022; AlOmar et al., 2018), suggesting that participants in this study might have been of higher SES than the KSA average. Further, as participation in this study was voluntary, those willing to take part might have been less likely to suffer from mental health problems than the average for this age group (Cheung et al., 2017). The unexpected findings of the current study might therefore be explained by the relatively high SES of participating students and their relatively low levels of mental health problems, while also suggesting that their capacity to adapt to online learning was significantly affected by family support.

The current study also identified a minority of students who perceived a decline in their academic achievement. These participants may have faced challenges or difficulties that were unique to their specific situations, and which were not characteristic of the situations of the majority of students during the lockdown. For example, difficulties adapting to the modalities of online learning were pointed out as significant issues, with ineffective teacher communication, decreased engagement, and technical problems with the online education system frequently mentioned. Moreover, the disruption of the usual learning environment due to the imposed pandemic restrictions was also marked as a contributory factor. Noise and distractions during online lessons were problematic for some students and affected their academic focus. All these factors might also have been associated with lower SES, which may indicate less access to up-to-date technology, fast internet connections, and quiet places to study in the home (Antipova, 2020; Dudaite, 2016; Stelitano et al., 2020). The findings of this study suggest that the lockdown period might have increased the importance of resources within the home and of family support for education and thus exacerbated the effect of SES on academic achievement.

Further, for some participants academic performance might have been negatively affected by reduced opportunities for physical activity, identified as a disadvantage of lockdown by responses to the open-ended questionnaire. The confinements of the lockdown encouraged sedentary behaviours, which coupled with reduced outdoor physical activities and social interactions could potentially have an adverse impact on the mental wellbeing and academic performance of participants. This result was suggested by previous studies which found both a reduction in physical activity among adolescents during the lockdown (Andriyani et al., 2021; Kharel et al., 2022; Runacres et al., 2021; Stockwell et al., 2021), and a correlation between less physical activity and poor mental health (Runacres et al., 2021; Scapaticci et al., 2022).

Adding to these were reported experiences of heightened anxiety, depression, fear, loneliness, and distress, particularly during the early phases of remote learning, which might have contributed to a perception of declining academic outcomes. The relationship between poorer

mental health and perceived academic performance has been shown in other studies during the pandemic (Soneson et al., 2023; Bas, 2021). Among mental health challenges, participants in this study gave particular emphasis to difficulties in maintaining concentration during lessons. However, the quantitative findings did not show a correlation between poor mental health and lower perceived academic performance. This may be due to the small number of students who experienced mental health issues.

The results indicate that, despite the shift to online learning during the lockdown, a majority of students in this study reported strong academic achievement relative to their peers. This confidence in their academic performance may have been related to their ability to use various online tools, such as email and social media platforms and Microsoft Teams. While participants expressed concerns about the Madrasati platform specifically, their broader experience with digital tools may have ameliorated the impact of the imposed platform, particularly as they experienced growing feelings of adaptation, agency and self-regulation, both of which are associated with academic achievement (Reis, 2004). This experience with and capacity to adapt to online methods suggests that students were able to benefit from a community of inquiry even when this community was formed in a rapid response to the need for online learning caused by the pandemic. As a theory of online learning environments, community of inquiry theory states that elements of social presence, cognitive presence, and teaching presence are necessary for successful digital education (Garrison & Akyol, 2013; see Chapter 2, Section 2.7.2 and Chapter 5, Section 5.2.4). Through digital tools, many students in this study were able to establish a community of inquiry with their teachers and peers, supported by family support in the home. community of inquiry theory illuminates the importance of these factors, and may help to explain why the potential negative effects of online learning on perceived academic achievement were mitigated for these students.

Further, amidst COVID-19 uncertainties, proactive measures—including engagement in religious activities, self-regulated learning practices, personal development, and family support — emerged as key determinants in maintaining good academic performance, as had been suggested by

pre-pandemic research on the relationship between self-regulation and academic performance (Reis, 2004). These findings underscore the vital role of students' proactive actions and active engagement amid the challenges. By engaging in peer-to-peer exchange in an online format, and through the building of closer relationships with family members, many students were able to maintain a positive reciprocal relationship with their environment, supporting effective learning in the terms of social cognitive theory, which argues that learning takes place in a social and reciprocal environment (Bandura, 1986; see Chapter 2, Section 2.7.3).

In relation to self-determination theory, students showed a remarkable capacity to employ self-motivation strategies and manage their learning environment during the lockdown, thereby supporting their academic performance despite unprecedented obstacles. This observation is consistent with the findings of Biwer et al. (2021), who demonstrated that self-regulated learners usually achieve more academically due to their willingness to independently adapt, control, and modify their learning behaviours even in the face of adversity. Clear evidence of this can be found in the student narratives discussed in Chapter 5 (Sections 5.2.5.1 and 5.2.5.2), which underscored students' focus, reliance on themselves to understand lessons, and ability to seek help independently when needed. The adoption of such self-regulation strategies enhanced students' coping and adaptability during challenging periods, such as the pandemic, supporting the position of self-determination theory in that stronger feelings of autonomy, competence and connectedness could lead to positive perceptions of academic performance.

The findings of this study thus suggest that students' positive feelings about their own adaptability were associated with positive perceptions of their academic performance. Several students reported their ability to adapt, with some connecting this to improved academic performance, supporting the relationship between adaptability and achievement found in previous studies both before the pandemic (Burns et al. 2018) and during the lockdown (Zhang et al. 2021). This implication that adaptation was correlated with an increased ability to maintain academic performance during online learning is supported by the findings of Hassan et al. (2022), in their

study of university students in Iraq during the lockdown, which indicated high levels of lockdown-induced fatigue among students. However, their study also found that "positive coping behaviours and personal resilience were significantly correlated with decreasing fatigue levels during the lockdown period" (p. 14,851). Positive coping strategies were related to higher levels of adaptability (Hassan et al., 2022). Aligning with these findings, the current study also reported notable adaptability among students, with the positive feelings the students had about their ability to adapt to the unprecedented circumstances caused by the COVID-19 pandemic sustaining their positive academic perceptions.

The findings of this study may be framed in terms of the proposed theoretical models. Adaptability and focus allowed students to manage their learning while maintaining feelings of autonomy, aligning with the conditions for achievement and positive self-perception described by self-determination theory. Students were able to adapt and progress in overcoming challenges, highlighting the importance of addressing their fundamental psychological needs for autonomy and competence, two key needs identified by Deci and Ryan (2000), even amidst adversity.

Further, many students credited their capacity to cope with the lockdown to the third basic need of SDT, which is relatedness. Their support networks, primarily their families, played a crucial role in enabling them to thrive in challenging circumstances. Related to Bandura's (1986) social cognitive theory, which emphasises the impact of the environment on human behaviour, the environment in terms of self-determination theory was characterised by relatedness, the type of social support most students found within their home study environments, leading to decreased anxiety and enhanced well-being. As a result, most students did not perceive negative effects on their academic performance. In fact, some even reported a perceived improvement in their academic achievements as they adapted to the altered circumstances. Recognising the impact of both internal drive and external support systems, such as familial and cultural resources, in aiding students' academic resilience, self-determination theory offers a valuable framework for understanding the cognitive and motivational factors shaping students' learning experiences in difficult circumstances.

Students' ability to use digital communications and tools allowed the beneficial effects of a community of inquiry to continue through online learning. Active engagement, peer-to-peer exchange and family support enabled the positive interaction between internal and external influences posited by social cognition theory as the foundation of agency (Bandura, 1986). Bandura (1986) argued that environment, behavioural patterns and cognition form a model of reciprocal causation enabling human agency; the results of this study align with this theoretical model by suggesting that a supportive home environment and an internal sense of patience and resilience when dealing with challenging circumstances reinforced many participants' feelings of personal agency and of academic achievement. The results underline the interaction between the three theoretical frameworks necessary for a nuanced understanding of students' perceived academic achievement.

6.3 Wellbeing and Perceived Academic Achievement

The results of this study showed both relatively high levels of wellbeing among participating students and a positive correlation between wellbeing and perceived academic achievement. These findings align with those of previous research, where wellbeing has been shown to be an important factor supporting academic performance as well as positive functioning in other life domains (Slee and Skrzypiec, 2016). The strong correlation between wellbeing and perceived academic achievement in quantitative results and the frequency with which participants mentioned feelings of wellbeing in relation to their ability to function suggest that for these students, high levels of wellbeing formed an important protective factor mitigating the predicted negative effect of the pandemic on their perceived academic achievement.

The results suggest that fostering a sense of wellbeing among students both bolstered their academic performance and strengthened their overall ability to navigate adversities and maintain positive outlooks in challenging circumstances. However, it is important to consider that other mediating factors beyond those explored in the current study could have contributed to the high levels of wellbeing reported by the students. Individual differences in personal characteristics such

as resilience, problem-solving skills, or coping mechanisms, and in external factors such as social support systems and pre-pandemic relationships with teachers may have influenced participants' wellbeing independent of the mentioned factors of family support, religious faith, peer interactions through digital means, and adaptability. Further research would be necessary to uncover the range of factors involved in adolescent wellbeing in this context.

Almost half of the students in the present study were classified as what Keyes calls flourishing, revealing moderate to high levels of wellbeing (see Chapter 4, Section 4.4, Table 4.3). As discussed below, this rate is comparable to that found by international studies. Keyes' classification underscores flourishing as an indication of optimal adolescent functioning. This finding is noteworthy, considering the unprecedented challenges posed by the pandemic and the subsequent reduction in face-to-face social interaction and the transition to online learning. Possible explanations for these findings are based on students' ability to maintain peer relationships in an online form, their appreciation of the potential of the lockdown to allow more time for personal development activities, and the beneficial effects of strengthened family gatherings and religious growth, all factors signalling the students' ability to the circumstances of the pandemic and maintaining generally high levels of wellbeing.

In contrast, a minority of students were classified as languishing, again a level comparable to that found in other countries as discussed in detail below. This indicates that a small percentage of students had difficulty facing the challenge of maintaining their subjective emotional and psychological wellbeing under the strains of the COVID-19 lockdown. As Keyes (2009) pointed out, a person who is languishing does not necessarily experience a mental health disorder or poor mental health but may experience feelings of stagnation and emptiness, potentially leading to significant consequences for that person's future mental health (Keyes, 2009). The qualitative findings presented in Chapter 5 further revealed that some students faced difficulties during the lockdown, such as isolation, disrupted routines, and limited social interactions. For a minority of students, such factors may have negatively influenced their wellbeing.

Considering the age of this study's adolescent sample (11-18 years old), it is proposed that some developmental factors could pose challenges to social-emotional wellbeing, affecting prospects for flourishing. Adolescence is characterised by ever-growing stressors, including familial and school demands, peer pressure, romantic relationships, and choices related to their futures, which can have a significant impact on subjective wellbeing (Proctor et al., 2009).

These stressors could have compounded the difficulties faced by some students in this study, therefore potentially having a negative impact on their wellbeing. Park and Peterson (2006) have demonstrated that some strengths are less prevalent among adolescents than among children under 12 years old, indicating the significance of these developmental changes when examining adolescent wellbeing. Basic psychological needs such as competence, autonomy, and relatedness might be less likely to be fulfilled during middle and late adolescence compared to earlier developmental stages.

While almost half of students in the present study were classified as flourishing and successfully navigating both the typical developmental and the pandemic-specific stressors, it is important to consider why a minority did not navigate these challenges as effectively. Factors including the abrupt transition to online learning, decreased social interaction, and the unprecedented uncertainty of the pandemic might have been overwhelming for these individuals (Brooks et al., 2020; Tasso et al., 2021). Importantly, the lived experience of the pandemic is unique to each individual and dependent on a myriad of contextual factors such as family life, socio-economic status, and their prior state of mental health. These factors are among those considered by Bravo-Sanzana et al. (2022) in their study of wellbeing among adolescents in Mexico and Chile. This point reinforces the importance of considering these individual and environmental contexts when discussing adolescent wellbeing during challenging periods like the pandemic (Askell-Williams & Lawson, 2015; Bandura, 1986).

The present study findings suggest various factors that might have mitigated the obstacles presented by the pandemic in terms of wellbeing, as well as in terms of academic achievement

directly. Students' ability to maintain peer-to-peer interactions through online means is one of these factors. Yu et al. (2023) found academic achievement more closely linked to student-peer relationships than with student-parent or student-teacher relationships. This emphasises the critical role of peer interactions on students' academic experiences and overall wellbeing, and implies that the absence of direct in-person peer interactions during the lockdown might have created an additional layer of stress and challenges for some students. However, Yu et al. (2023) found that student-peer relationships were influential on student wellbeing even in a virtual platform. In the context of the current study, as in-person interactions were not possible due to the lockdown restrictions, students-maintained peer connections through methods such as Snapchat, Instagram and Microsoft Teams and reported gradual adaptation to their new circumstances. The findings suggest that, despite limited physical interaction with friends due to the lockdown restrictions, students embraced online communication as a means to connect, sharing their experiences and emotions virtually. They sought academic support from their peers, including studying together on Teams, reflecting their adaptability, particularly in terms of the adoption of digital technology, discussed in relation to community of inquiry theory above. From these findings, the benefits of peer interaction on academic performance and wellbeing were reported by these students, even in the absence of direct in-person contact. As discussed above, the results suggest that for these students, in the extreme experience of lockdown, family relationships, often supported through religious practices, were very beneficial for students' sense of wellbeing. This finding nuances the work of Yu et al. (2023) by highlighting that while peer relationships were indeed critical, the role of family, particularly when reinforced by religious practices, provided an additional layer of emotional and psychological support that helped students navigate the challenges of the lockdown. Unlike Yu et al. (2023), who primarily focused on the impact of peer relationships, this study underscores the complementary role of family dynamics and religious practices, suggesting that these factors may serve as vital buffers in times of crisis, even when peer interactions are limited.

Further, strategies to maintain wellbeing and productivity were developed by the students interviewed in this study. Alongside the efforts to adjust to online learning, these included a focus on personal development in non-academic areas and collective and leisure activities. This reflects the findings of previous studies including that of Widnall et al. (2022), who examined adolescent experiences of the pandemic in terms of mental health and wellbeing through a qualitative study (which did not distinguish between mental health and wellbeing). They explored how adolescents transitioned, adapted, and coped with the challenges brought about by the pandemic, noting various strategies such as online contact with peers, positive learning environments and reflection and self-awareness used to maintain wellbeing, while also emphasising the wide range of experiences across the respondents to their study. The current study similarly reflects the capabilities of students to navigate abrupt changes and maintain their engagement and productivity, even under adverse circumstances.

These findings underline the emergence of a different interpersonal domestic dynamic shaped by lockdown measures, alongside benefits for wellbeing found in the time and space offered by lockdown, and their substantial impact on individual wellbeing—which, for these students, was not as negative as expected. In fact, the present study's findings align with outcomes from other studies that employed similar assessment tools to evaluate adolescent wellbeing in other cultural contexts conducted before the pandemic (Carvalho et al., 2016; Keyes, 2006; Singh et al., 2015; Skrzypiec et al., 2014). These results from studies prior to the pandemic establish a benchmark to assess the impacts of significant societal changes, such as a pandemic, on adolescent wellbeing. Skrzypiec et al. (2014) investigated the social, emotional, and psychological wellbeing of the International Baccalaureate (IB) Middle Years Programme (MYP) adolescents aged 11–16 years in South Australia. Their findings revealed that 55% of participating students were flourishing, with 38% exhibiting moderate wellbeing and 7% languishing. Similarly, a study by Keyes (2006) involving young people aged 12–18 in the United States found that 38% were flourishing, 6% were languishing, and the remaining 56% were moderately mentally healthy.

These diverse studies consistently indicate a substantial portion of adolescents—ranging from 38% to 55%—are flourishing, while a significant majority display a moderate level of mental health, whereas, only a small percentage—less than 10%—are languishing. The current study, in the context of the pandemic, found only a slightly higher proportion of students languishing (11%) compared to these pre-pandemic findings, suggesting that among these students, the extreme circumstances of the pandemic did not have a significant negative effect on wellbeing.

Further, the findings of the current study align with a similar study conducted by Cefai et al. (2021) during the COVID-19 pandemic, which examined the wellbeing, mental health, and resilience of Maltese school children during the first wave of the pandemic using a subjective wellbeing online survey. This study found that nearly half (47%) of the students were flourishing, while a small proportion (11%) was languishing in their wellbeing. The current study identified a comparable proportion of students languishing (11%) during the pandemic. However, in Mexico and Chile, Bravo-Sanzana et al. (2022) reported a higher prevalence of languishing (18.9%) among late adolescents (15 to 19 years) during the pandemic. In all these studies, the rate of languishing was over 10%, suggesting that the subjects of this study were at the low end of languishing in relation to international comparisons.

Thus, some variation in the prevalence of languishing, evident across different geographical regions—particularly those characterised by high levels of poverty—suggest there may have been differing factors present in regional, socio-economic, and cultural contexts which had an influence on adolescent wellbeing during these challenging times. Bravo-Sanzana et al. (2022) identified a range of factors, including exposure to violence, poly-victimisation, and LGBTQ+ identity, contributing to this relatively low level of wellbeing. These specific factors were not addressed in the current study.

It is therefore important to consider that the closure of schools and lockdown circumstances experienced during the pandemic by students often occurred simultaneously with wider disruptions

to everyday life for families, including financial hardship, changed employment arrangements, and concerns for health (Parveen, 2020). Localised pandemic responses, anti-contagion policies, and the efficiency of support systems available, particularly remote learning modes and capacities, could further underline any significant variations in these percentages, foregrounding the wide range of ways in which students were impacted globally by the pandemic (Alkhaldy, 2020).

Although a sense of wellbeing declined slightly during the initial weeks of the lockdown as documented in Chapter 5, Section 5.2.5.1, this likely was a result of the sudden need to develop personal and emotional coping strategies to navigate a dramatically changed social environment while managing the demands of a less than user-friendly online learning platform. It is important to note that these observations about the initial decline in wellbeing and the temporary nature of this effect are based on qualitative findings rather than survey data. For the majority of students, this effect was only temporary. Self-determination theory, with its focus on how "social and cultural factors facilitate or undermine people's sense of volition and initiative" and impact "their wellbeing and the quality of their performance" in terms of their "experience of autonomy, competence, and relatedness" (Deci & Ryan, 1985, p. 417), can provide a theoretical lens to interpret these findings. Because the pandemic and the enforced lockdown changed all the typical learning conditions, the students, teachers, and families found themselves immersed in an environment that was unfamiliar to them. Consequently, during the early period of the lockdown, the students' sense of autonomy, competence, and relatedness may have been weakened by the radical challenges of being forced to remain at home and immediately begin online learning, leading to an immediate decline in wellbeing. This possibility is reflected in participants' responses describing difficulties in the early stages of lockdown.

However, once the first shock had passed, the students became accustomed to new forms of peer interaction while appreciating the benefits of additional time to engage in personal development. This adaptability, alongside an increased engagement with family and focus on religious practices in the home discussed above, supported them in overcoming the situation

through adjustment to a new way of learning and self-regulation that reinforced their patience and motivation. In accordance with self-determination theory, the students in this study quickly began to regain a sense of competence, autonomy, and relatedness, the "three innate psychological needs" (Ryan & Deci, 2000, p. 68).

Maintaining self-discipline and motivation during this time represented a barrier that students had to overcome. In this study, there is evidence to suggest that student motivation, self-discipline, and autonomy experienced an initial setback, which gradually improved as students adjusted to the changes. Therefore, the initial negative feelings affecting students' wellbeing and mental health evolved into more positive perceptions in the following months, giving evidence of adaptation and self-regulation behaviours, consistent with self-determination theory. By the end of the pandemic, students reported experiencing positive wellbeing, a satisfactory sense of academic achievement, and a feeling of having successfully coped with the challenges of the lockdown.

The significant and positive association between subjective wellbeing and students' perceived academic achievement revealed by the results of this study reflects the findings of Gräbel (2017) pre-pandemic systematic literature review. Gräbel's (2017) findings emphasised that emotional and psychological wellbeing are significantly linked with positive academic outcomes and that positive emotions, the fulfilment of basic needs, intrinsic motivation, personal strengths, and engagement all influence this relationship. Gräbel (2017) therefore suggested that wellbeing may serve as a moderator or facilitator for students' academic achievement. This suggestion is supported by the findings of the present study, in which students reported that their wellbeing was enhanced by emotional support from their families, peers, teachers, and intrinsic motivation often linked to religious faith.

Empirical results regarding the correlation between wellbeing and academic achievement have been complex, with the general consensus pointing towards a relatively small but positive correlation (Amholt et al., 2020; Bücker et al., 2018). For instance, Amholt et al. (2020) offered a

divergent set of findings when reviewing the literature concerning the relationship between academic achievement and wellbeing. While some studies uncovered a positive correlation with varying intensity, others found no connection (Rüppel et al., 2015; Whitley et al., 2012). Moreover, Amholt et al. (2020) noted that such a positive correlation appeared more frequently when the focus was on students aged 10–14, with lesser or no association reported in studies focusing on older students.

The qualitative results highlighted a distinctive perspective of how individual wellbeing interacts with academic achievement, notably emphasising the role of family support in fostering and sustaining academic achievement and wellbeing amidst the challenges posed by the online learning environment. The strong correlation between wellbeing and perceived academic achievement suggests that for these students, wellbeing may have functioned as a factor partly explaining their unexpectedly positive perception of their own academic performance in comparison to that of their peers. Students reported various benefits of the period in terms which suggest an increased sense of wellbeing, including closer relationships with family, a sense of religious growth, more time spent on personal development and a stronger sense of self-regulation in their learning. Their reports on their ability to cope and flourish were sometimes explicitly connected to increased support from family members in their education. The results suggest the possibility that an augmented sense of wellbeing had a significant impact on participants' perceived academic performance, although further longitudinal study would be necessary to explore this connection.

6.4 Mental Health and Perceived Academic Achievement

Despite the initial challenges of the lockdown, the majority of the students in the current study showed no signs of depression or anxiety (see Chapter 4, Section 4.5, Tables 4.4 and 4.5). This finding suggests that while the pandemic initially impacted mental health for some students, symptoms did not persist among the majority of the sample. Further, results showed that depression and anxiety did not have a significant predictive effect on self-perceived academic achievement (see

Chapter 4, Section 4.9 and Figure 4.4). Overall, the level of depression and anxiety experienced by the students in this study were low, and when experienced did not have a direct impact on how they perceived their academic performance. Qualitative results made an important contribution to the interpretation of these findings, as they suggested that family support, alongside that of teachers, helped to protect these students from mental health problems and supported their academic achievement.

The finding of low levels of mental health difficulties experienced by participants broadly aligns with that of other studies conducted during the pandemic. Cefai et al. (2021) reported that a majority of Maltese school students were able to maintain their psychological health and showed normal or low levels of depression and anxiety, despite the significant challenges posed by the lockdown.

Further, Barnawi et al. (2023), assessing secondary school students in KSA using DASS-21, found that 35.2% experienced anxiety and 30% experienced depression, levels slightly higher but comparable to those found in the present study. Al-Shehri et al. (2022), also using the DASS-21 instrument, assessed the prevalence of depression, anxiety, and stress among female high school students 14 to 18 years old in Jeddah city from January 2022 to May 2022. The authors found that more than half (57.1%) of the participants were free from depression, and 53.4% were free from anxiety, again showing slightly higher levels of mental health issues than in the present study. This disparity could be due to sociodemographic variables. The participants of the present study were generally from families with higher incomes and higher levels of parental education than that of the general population in Saudi Arabia. Much previous research has suggested a significant relationship between lower SES and higher levels of mental health problems among children and adolescents (Reiss, 2013). The relatively high SES of participants in this cohort may have been a protective factor in their lower level of mental health issues.

The lack of correlation between mental health and perceived academic achievement was unexpected, given the body of research that establishes a strong correlation between mental health and academic performance (Agnafors et al., 2021; Di Malta et al., 2022; Giusti et al., 2021; Hunt et al., 2009; Mosleh et al., 2022). A pre-pandemic study by Hunt et al. (2009) suggested that depression predicted low academic achievement at college level, with co-existing depression and anxiety increasing the likelihood of negative academic outcomes such as dropping out. The outcome of the current study also contrasts with several studies primarily focused on online learning conducted during the COVID-19 pandemic, which identified a correlation between mental health difficulties and academic achievement. For example, Giusti et al. (2021) suggested that the nationwide COVID-19 lockdown measures in Italy led to greater difficulties in concentration and learning for university students, with a negative correlation between depressive symptoms and academic achievement, indicating an adverse impact on the latter. Similarly, Di Malta et al. (2022) found that in a sample of 208 distance-learning students at university during the pandemic, anxiety was associated with poorer perceived academic performance. Notably, most of these previous studies were with university students, older than the cohort studied here and less likely to be living in the home environment during the period of lockdown. It is possible that these students reported greater concerns about their mental health and academic performance because they lacked the regular support from family found to be very important by participants in this study.

While the quantitative analysis conducted in the current study revealed that a substantial portion of the participants reported no ongoing significant symptoms of depression or anxiety—suggesting that these mental health challenges were not pervasive among the majority—the qualitative findings provided deeper insights into the individual experiences. Particularly during the early stages of the lockdown, the mental health of some students in this study was negatively impacted. Respondents described how the isolation, sedentary lifestyle, lack of social contact, and the challenges of online learning produced feelings of anxiety, fear and frustration, sadness and loneliness, and stress. These sentiments were reinforced in the semi-structured interviews, where

fears about the virus itself were voiced alongside the emotional and physical effects of lockdown. Several respondents mentioned concerns about illness and the death count, while others reported the toll the situation took on their emotional state and physical wellbeing, leading to sleep disturbances, headaches, and mood swings. The qualitative results suggest that the change in lifestyle caused by the lockdown and the wider climate of anxiety about COVID-19 had a negative impact on some students.

These findings correspond to some extent with those of Peng et al. (2022), who examined the effects of online learning and mental health during the pandemic among Chinese junior and senior high school students and found a higher risk of self-reported mental health problems in the participating adolescents, with female junior high students showing high levels of concern about their academic performance particularly at risk.

In the current study, while some participants reported feelings of considerable distress, these feelings did not translate into widespread mental health problems in the clinical sense. This finding is based on the observation that the majority of students did not show signs of severe or persistent mental health issues, as detailed in Chapter 5. Although some students experienced distress during the lockdown, the overall prevalence of clinical mental health problems was low among the sample. The supportive home environment, along with other factors such as family support and religious practices, may have contributed to mitigating the impact of distress for many students. These findings suggest that while the pandemic did affect some students' mental health, the effects were not universally severe or long-lasting. However, this does not diminish the importance of providing targeted support for students who do experience significant levels of depression and anxiety. Collectively, these results underscore students' adaptability during challenging times, without diminishing the need for targeted support for those experiencing severe levels of depression and anxiety.

The discrepancy between the current study and prior research findings with adult students could be attributed to several factors particularly affecting the considered age group, such as student adaptability, support from family members, family gatherings, personal development, and religious practices. In the current study, these factors, individually and in concert, seemed to counteract the negative effects of mental health issues on perceived academic achievement. Some interview participants expressed their preference for online learning, which they felt enhanced their motivation and ability to focus. Others expressed that while they experienced feelings of sadness and stress, these feelings did not affect their academic performance. Several commented on the extent to which family support helped to mitigate feelings of mental distress and supported their ability to study.

Taken together, these results provide nuanced information about the complex relationship between mental health and perceived academic achievement. It is clear that the adaptive strategies used by the students and the social support structures around them contributed substantially to their ability to maintain academic performance despite the challenges of the pandemic.

However, it is important to note that the lack of association between mental health and perceived academic achievement found in this study could be due to the fact that the majority of the students did not demonstrate significant mental health symptoms. Considering the voluntary nature of this study, it is plausible that those grappling with higher levels of depression and anxiety may have opted not to participate. Previous research has shown that adolescents choosing to participate in voluntary studies have lower than average levels of mental health difficulties (Cheung et al., 2017). Therefore, while this study did not observe a direct correlation, it does not negate the potential for mental health issues to impact academic achievement under different circumstances.

Despite the insights gained through this study, it is important to exercise caution when drawing conclusions about an entire population. The mixed findings from the quantitative data do not suggest a lack of consistency but rather reflect the diverse range of experiences within the

student population. This variation highlights the importance of recognising that although a majority of participants displayed generally positive behaviours or emotions, there were also individuals who experienced adverse effects, such as depression or anxiety, during the lockdown. Also, some individuals may have experienced concerning levels of depression and anxiety for at least some of the time during the pandemic, but overcame those feelings over time and with support. This complexity supports the choice of integrating both qualitative and quantitative data in this current study, and the importance of conducting a study over a sufficient duration of time to gain a comprehensive understanding of the research topic.

6.5 Amount of Schoolwork and Perceived Academic Achievement of Participants

The amount of schoolwork did not have a strong influence on how the students perceived their academic achievement (see Chapter 4, Figure 4.4). Specifically, despite varying reports from students on the amounts of schoolwork they received during the lockdown, changes in schoolwork due to the pandemic lockdown did not result in significant differences in perceived academic achievement among students. Regardless of whether they felt they were doing more, less, or about the same amount of schoolwork, their perceived academic achievement remained consistent. As evidenced by the findings of the qualitative study, the lived experiences of the students were quite diverse. Some students reported that the amount of schoolwork was excessive, overwhelming and repetitive. In contrast, other students reported that the amount of schoolwork during the lockdown did not change from previously, while one even felt that the workload was somewhat lighter than she had been experiencing prior to the lockdown. The variety of opinions expressed by students in qualitative responses did not provide a consistent explanation for the lack of influence of the amount of schoolwork on perceived academic achievement.

Kirsch and Vaiouli's results (2023) in a study of adolescents in Luxembourg supported the expectation that home learning conditions would affect students' attitudes towards schoolwork and subsequently their academic achievements. The participants of their study found schoolwork less

interesting and more difficult during online learning. Considering the main factors affecting academic achievement within the context of online learning, they found that higher levels of learner autonomy and school satisfaction corresponded with higher levels of achievement, with support from teachers and parents playing a less important but still recognised role.

The findings of the present study are comparable to those of Kirsch and Vaiouli (2023) in that students reported high levels of autonomy in terms of agency and self-regulation, high levels of wellbeing, and high levels of parental support. It is possible that these factors protected students against any potential decline in perceived academic achievement which could have been associated with the increased volume of schoolwork perceived by some students. In the present study, those respondents who reported an increase in the volume of schoolwork often associated this increase with the change in how assignments were delivered, including disorganised structure and file delivery through the online platform. The shift to online learning may therefore have led to perceptions of a greater workload associated with the system of delivery rather than changes to the amount of schoolwork assigned.

In the context of this study, while some respondents were dissatisfied with aspects of online learning, others noted its similarity to their experience of learning in the classroom, and most did not report problems caused by the change in the amount and nature of schoolwork related to the shift to online learning. This result contrasts with that of other research, which found that a lack of time for preparation for the shift to online learning meant that pedagogical strategies such as the nature of assessment were not adequately planned (Bergdahl & Nouri, 2020). Other studies have noted the challenges for both teachers and students in rapidly adapting the curriculum for online learning (Di Pietro et al., 2020; Hodges et al., 2020). The result of the present study may relate to efforts made in KSA to maintain consistency in the curriculum during the period of lockdown. Al-Jarf (2022) found that educational curricula and schoolwork in KSA did not change markedly during the pandemic despite the delivery of learning being moved online. The varied opinions expressed by participants in this study regarding the amount of homework indicate that efforts to

maintain consistency during the transition to online learning had mixed levels of success from the perspective of students.

Although some students reported concerns about teachers' ability to use the new Madrasati platform, a majority reported good online support obtained from teachers, with some recording a preference for online learning. This perception may reflect the very high proportion of teachers in KSA reporting that their pre-pandemic training had included the use of ICT (Information and Communication Technology) for teaching. Teachers' high levels of confidence in this area in comparison to teachers in many other countries likely also assisted in the maintenance of a consistent curriculum in a digital form, despite the inevitable difficulties of the forced transition (OECD, 2020b). However, some students did report that their teachers had technical difficulties in using the Madrasati platform. Given these mixed responses, it is important to note that the struggle in adaptation to the online platform itself wasn't unique to KSA. Many nations across the globe, including developed countries, contended with analogous challenges while shifting to remote learning. As various reports and articles, including those by the World Bank (2022), have noted, KSA's response to the educational challenges posed by the pandemic has received commendation. Many countries faced significant challenges in the rapid adoption of online learning necessitated by the pandemic (Bergdahl & Nouri, 2020; Chen et al., 2020; Hodges et al., 2020; Di Pietro et al., 2020). In this context, simply maintaining an established study course during such a period was no insignificant achievement. Although a fully functional community of inquiry may not have been possible during this time, it is crucial to note that learning continued for students, and was reasonably effective considering the challenging circumstances.

Given the generally praised management of the shift to online learning in KSA, a possible explanation for the lack of significant association between the amount of schoolwork and perceived academic achievement is that remote learning, in this case, was as effective (or even more so) as in-person learning in the classroom (Liu, Liu, et al., 2020). This could be due to improved online modes of learning and better student engagement in the remote learning environment, as suggested

by Commodari and La Rosa (2021). Liu, Liu, et al.'s (2020) findings at middle school level suggested that online instruction was significantly more effective than traditional methods in improving the students' reading skills, and predicted a positive shift in their academic performance. Liu, Liu, et al.'s (2020) findings, although not based on research during the pandemic, are echoed in the current study, suggesting that increases in schoolwork may not be the driver of perceived academic achievement in the context of remote learning.

The finding in the current study that amount of schoolwork did not affect perceived academic achievement accords with the emphasis in self-determination theory on quality and engagement in learning rather than merely focusing on the quantity of schoolwork. This theory emphasises the need for autonomy, competence, and relatedness for effective learning, and it is likely that the ability of most students to maintain their sense of these qualities during the period of online learning mitigated the potential negative effects of this period.

As the qualitative findings from the current research identified challenges with the delivery of lessons and the online platform (such as difficulties in understanding instructions, the lack of visual cues and facial expressions from teachers, limited opportunities for individual questioning, and the absence of a learning dialogue and social reinforcement from teachers and peers), it is important to note that some students struggled in these areas. However, the current study also found that a significant proportion of students demonstrated remarkable coping skills and adaptation to the new learning environment (Chapter 5, Section 5.2.5). Against the backdrop of changes in instructional delivery modes during the pandemic, this highlights the need to focus on the quality of instruction, effective workload management, and students' engagement in learning activities, among other factors, when planning and structuring remote education, especially amidst unexpected disruptions.

6.6 Demographics and Perceived Academic Achievement

The results showed that demographic variables influenced students' academic experiences and outcomes during the challenging period of the pandemic in various ways. As expected, there was a significant correlation between higher family socioeconomic status (SES) and more positive perceived academic achievement. Gender was also associated with perceived academic achievement, with girls rating their performance more highly. Age was not found to be a significant factor.

6.6.1 Socioeconomic Status and Perceived Academic Achievement

The findings from this study revealed that family SES was a significant predictor of self-perceived academic achievement. The association between higher SES and better academic outcomes is well documented in existing literature, highlighted in Chapter 2 (e.g., Aquino et al., 2019; Bae & Wickrama, 2015; El Refae et al., 2021; Idulog, 2022; Li et al., 2020). It is significant that the participants of this study were generally of higher family SES backgrounds than the general population in Saudi Arabia. This aspect may in some part explain the higher-than-expected levels of perceived academic achievement, given the strong association between these factors.

Explanations for the strong correlation between SES and academic achievement have been suggested by previous research. Deles (2021) and Ribeiro et al. (2021) found that students from higher SES households generally received greater support from their parents and better access to resources. In particular, Deles' (2021) study offers important insights into the dynamics of parental assistance in higher SES households during the spring 2020 lockdown condition in France. Their research indicated these families faced fewer challenges transitioning to home schooling, attributed to their easy access to vital resources like advanced technology, high-speed internet, quiet study spaces, study materials, and private tutors.

The qualitative interviews undertaken in the present study did not directly address SES. However, the frequent reports of familial support as beneficial during online education, and the various participants who mention access to resources such as stable internet as important factors in

their home study, suggest that the home environment, including aspects related to SES, was central in maintaining academic performance during the pandemic.

Deles' (2021) study also revealed strategies employed by high-SES families to manage the load of remote learning. Implementing a structured daily routine, using educational apps, and engaging with interactive learning methods were among the effective strategies revealed. While these specific tactics were not addressed in the current study's qualitative analysis, the relationship between these strategies and the influence of SES uncovered through the current study's quantitative findings suggests that similar strategies could have been present in managing remote learning among the high-SES families in our study. This focus on structuring and strategising academic engagements also highlights the significance of students' ability to navigate challenges with resourcefulness and perceived ease. This suggestion aligns with the frame of self-determination theory in the sense that greater autonomy and self-regulation support academic achievement, and further implies that autonomy and self-regulation can be nurtured in individuals by positive parental influence (Chapter 2, Section 2.7.1).

The results of this study confirm that SES is a critical factor for Saudi students' academic achievement, and echo that of another research undertaken in KSA (Alshalhoub et al., 2021). This relationship is likely propagated by various aspects of high SES, including access to superior educational resources, inherent academic ambition encouraged by educated parents, and overall higher quality of a home-based learning environment (Cochran, 2008; Singh et al., 2020).

Further, while the quantitative results indicate that SES, particularly parental education and household income, plays an important role in Saudi students' academic achievement, the qualitative findings suggest that the SES of the mother, particularly in terms of her ability to engage with and facilitate their children's academic performance, might be of particular importance. The connection between mothers' educational achievement and that of their children has been indicated by much previous research (Gul et al., 2020; Magnuson, 2007; Tahir et al., 2021). In this study, participants frequently mentioned their mothers' crucial assistance in understanding course material during the

abrupt shift to online learning, underscoring their vital contributions to the learning process during these challenging times. This familial involvement consequently enhanced feelings of connectivity and collaboration and became a significant factor in facilitating student understanding of their coursework.

While SES is not the only factor determining mothers' beneficial involvement in their children's education (Marks, 2020), most studies have indicated that it is influential (Gul et al., 2020; Magnuson, 2007; Sengonul, 2022; Tahir et al., 2021). The findings of this study imply that mothers play an important role in supporting students' academic performance, and this role may be associated with the mother's SES.

The observed role of mothers in students' academic achievement, identified by this study's qualitative findings may be influenced by family structures and parental roles typical of Saudi society. Although the father's education and occupation primarily determine the family's SES in KSA, this does not diminish the influence of mothers on their children's academic performance (Bursztyn et al., 2020; Monira Essa et al., 2020). Saudi societal norms and religious principles that dictate fathers as primary breadwinners often leave mothers more frequently in contact with the children at home (Alsulami, 2018). This might be particularly true during periods like the pandemic-induced shift to online learning, where mothers' involvement in their children's studies was likely to have become more pronounced.

Therefore, the interplay of the Saudi-specific socio-cultural norms, SES disparity, and traditional family roles provides a possible explanation of why the role of mothers, despite the father being the primary determinant of SES, emerged to be key in shaping students' academic achievement. Such discussions ground the current study in the socio-cultural context of KSA and provide comprehensiveness in understanding the dynamics that contribute to enhancing academic performance, reinforcing the justification for the premise that mothers performed crucial roles in this process.

Kim and Hill (2015) meta-analysis, involving a range of school-age children, lends further support to these findings. They not only identified a positive correlation between parental involvement and student achievement but also noted a tendency for higher involvement from mothers, despite both parents exhibiting a similarly strong influence on achievement. Specifically, they discovered a stronger association between children's achievement and school-based parental involvement and intellectual enrichment at home when the mother was involved. Thus, by integrating quantitative and qualitative perspectives in this study, a more nuanced understanding of the relationship between parental education, specifically the role of mothers, and students' academic achievement emerged.

6.6.2 Age and Perceived Academic Achievement

Age did not exhibit a significant association with self-perceived academic achievement. The potential lack of a significant association between age and self-perceived academic achievement in the study may be attributed to bias in subjective judgments of academic achievement within the sample. Another possibility is that this lack of association could be ascribed to the limited age range of the participants involved in the study, whose average age was approximately 15 years, with ages ranging from 10 to 18 years. A substantial proportion of students were aged 13 to 15 years. It should be noted that while previous studies, such as those by Nasseef (2015) and Wladis et al. (2015), have highlighted a potential influence of age on online learning experiences, especially for younger students, data from the current study did not reveal such a relationship. Future research with a broader age range may provide more comprehensive insights into the role of demographic factors in academic achievement.

6.6.3 Gender and Perceived Academic Achievement

Due to the Saudi cultural norms, although both boys and girls participated in the open-ended survey questions, only female students in this study were interviewed, limiting the scope to gain insights regarding gender and perceived academic achievement. In this context, the quantitative study found that gender was a significant factor associated with students' self-rated academic

achievement. This finding illustrates the influence of potential gender-related factors on academic self-perception, and could indicate that cultural norms and the segregated educational system in the KSA may impact female students differently, perhaps leading them to develop a more positive academic self-concept compared to their male counterparts. Literature on female academic success in KSA supports the notion that cultural and social factors influence academic outcomes. For example, Alomair (2015) and Nasseef (2015) highlight how gendered cultural expectations can affect the resources and time female students have for academic pursuits, which might have implications for their academic self-perception. Conversely, other studies suggest that female students may adapt more effectively to new educational environments, such as online learning, compared to males (Akhtar & Alam, 2016). This adaptability could contribute to a more positive self-perception of academic achievement.

Further research indicates that self-regulated learning behaviors and access to social support play critical roles in academic outcomes during online learning (Cho & Shen, 2013; Wang et al., 2013; Rueger et al., 2008). Girls often exhibit better self-regulation and greater access to support, which might facilitate a more favorable academic self-concept despite the challenges posed by the lockdown. This aligns with findings that girls are generally better at adjusting to online learning environments, potentially leading to a more positive perception of their academic performance (Cho & Shen, 2013; Wang et al., 2013).

Despite the significant role of gender, it should be noted that the discussion on gender is limited since interviews were conducted solely with female participants. Such a constraint limits the understanding of male students' perspectives on perceived academic achievement during the pandemic. As a result, insights into the gender question are only partial, being primarily supported by responses to two open-ended survey items. Therefore, the role of gender, as presented, remains an incomplete picture.

6.7 Limitations

Since this research was undertaken during the global disruption of the COVID-19 pandemic, a number of limitations arose as a consequence, including access constraints and temporal limitations. The study relied on participants' self-reported academic performance due to the ongoing closure of physical classrooms at the time of study, and their perceived academic achievement could not be compared to actual performance. However, research in this area, such as by Müller-Kalthoff et al. (2017), has shown that middle-school-age students generally have a good understanding of their own performance, and the LSAY survey (NCVER, 2009) found perceived academic achievement to be a reliable indicator of actual performance.

Another limitation of this study is the restricted peer-to-peer contact during the COVID-19 lockdown, which may have influenced students' perceptions of their academic performance. Without regular interaction with their peers, students may have lacked the usual points of comparison that could inform their self-assessments. This limited social context may have affected the accuracy of their judgments regarding their academic achievement. Consequently, the findings related to perceived academic performance should be interpreted with caution, considering that students' evaluations may have been shaped by the isolation and lack of peer reference points.

Also, according to Baumeister et al. (2007), self-reports are acknowledged as valuable data sources, particularly in the field of subjective assessments of psychological constructs such as personal wellbeing. Baumeister et al. (2007) argued that self-reports are an effective tool available to researchers to gain access to a participant's mindset, while Steinmayr et al. (2019) suggested that students are reliable informants about their own feelings and subjective wellbeing.

This study did not categorise participants into high and low achieving groups in terms of their academic performance. Therefore, the results do not provide information on whether students with lower levels of achievement were affected differently by the change to online learning than those with higher levels of academic performance.

It is important to note that this study aimed to listen to the students' self-perceptions about coping with the lockdown, their perceived academic performance, and how they felt about themselves. However, making definitive conclusions from the data obtained regarding cause-and-effect relationships is difficult. Study data were gathered from a cross-section of respondents at a single point in time, so any inferences of cause-and-effect relationships cannot be considered definitive (Creswell, 2014). Future studies could contribute to the understanding of changes in student wellbeing, mental health and perceived academic achievement across the middle years by undertaking a longitudinal study with the same respondents. It is, however, important to note that this study was conducted amidst a series of unique events and within the specific cultural context using a purposeful sampling process. Consequently, the findings cannot be generalised to populations or contexts other than those investigated in this study. The qualitative findings, derived from a small sample of in-depth interviews, offer rich insights but are not generalisable to the entire population. These findings are specific to the participants' contexts and should be interpreted as providing nuanced understanding rather than broad generalisations.

One of the key limitations is the relatively low R-squared values in the path analysis, with wellbeing explaining only 13% of the variance in perceived academic achievement, and depression and anxiety explaining 7.6%. These values suggest that other unmeasured factors might be influencing perceived academic achievement, which were not captured in the final SEM model. While the quantitative analysis focused on key factors such as SES, wellbeing, and mental health, additional factors—such as self-regulation behaviours and peer-to-peer interactions—could also play a significant role, as supported by the qualitative findings in this study (See Chapter 5). Model fit indices, including CFI and TLI, were found to be slightly below the recommended threshold of 0.95. These issues are often encountered in models with large sample sizes and may indicate areas where the model could be improved. While model modification indices were considered, the decision was made to maintain the model's theoretical framework and avoid overfitting. These limitations suggest areas for potential improvement, though they do not diminish the value of the

insights gained regarding the relationships between perceived academic achievement, wellbeing, SES, and demographics.

Two aspects of this study might have influenced the representativeness of the sample and increased selection bias, which could result in a distorted image of the larger population's attitudes and demographics. An examination of participants' demographics suggest that the study's sample was not representative of the Saudi middle school adolescent population. The demographic and socioeconomic characteristics of the participants lean towards higher income groups and higher levels of parental education. Students from higher SES families are more likely to perform better academically (e.g., Aquino et al., 2019; Bae & Wickrama, 2015; El Refae et al., 2021; Idulog, 2022; Li et al., 2020), and thus participants might have been more likely to perceive their academic performance as remaining above average during the pandemic. This limitation should be considered while interpreting the findings.

Further, the SES of participants might have influenced participation: for example, students who volunteered to participate in this study needed to have access to an internet -connected device and dedicate time to complete a questionnaire. Those requirements may have reduced or eliminated the opportunities for potential respondents, favouring students who owned a smartphone or those from higher SES households with an internet -accessible computer. These factors limit the generalisability of the findings across student subgroups. Therefore, the findings primarily reflect the mental health, perceived academic achievements, and subjective wellbeing of middle and upper socio-economic background KSA students.

Additionally, it is important to acknowledge the exclusion of 96 cases (19.3%) from the study sample due to missing data, lack of parental consent, or social desirability bias. Although the exclusion criteria were implemented to enhance the dataset's reliability, the high exclusion rate may have introduced potential bias, particularly if the excluded cases differed systematically from those retained in the final sample (e.g., in terms of socio-economic status or gender). This limitation

suggests that the findings should be interpreted with caution, as the final sample might not fully represent the broader student population. Future research should consider strategies to minimise such exclusions to reduce potential bias.

Previous research has shown that adolescent participants in voluntary studies are likely to have better mental health than average (Cheung et al., 2017). Individuals experiencing poor mental health may be less likely to volunteer for and complete surveys about their experiences and feelings. This aspect of selection bias might explain the generally good mental health found among participants, and the lack of influence of mental health problems on perceived academic achievement. However, while the majority of participants reported only minor or no symptoms of depression or anxiety, creating potentially skewed responses, these findings are actually within the range of those reported in different regional contexts (see Section 6.4). Thus, they are not out of alignment with global experiences of students' mental health during the pandemic.

While both male and female perspectives were captured in the survey data, the discussion on gender was primarily informed by female viewpoints, as all the interviewees were girls and young women. The limitation of involving exclusively female interviewees also emphasises the potential cultural barriers for a female researcher that could inhibit open dialogue around male perspectives. In KSA's conservative culture, discussing sensitive topics such as gender and academic achievement could be influenced by cultural norms of privacy and modesty. This may result in an incomplete understanding of the male experience, thus limiting the holistic understanding of gender dynamics within academic contexts.

The DASS-21 and MHC-SF scales utilised in this study were originally designed for adults, as noted in previous research (Duffy et al., 2005; Shaw et al., 2017; Szabó & Lovibond, 2006). Therefore, there is a limitation in the applicability of these instruments to adolescent populations due to the complexities and differences in emotional experiences between adults and adolescents. While the instruments utilised in the current study have been commonly employed with adolescents,

such as the MHC-SF and DASS-21 scales, the MHC scale in particular may not be entirely suitable. This adult-centric design was further highlighted by the need to drop certain items in the MHC-SF and DASS-21 in order to enable the measurement model to fit the data (see Chapter 3, Section 3.7.11.3 for details on the omitted items). This limitation emphasises the importance of adapting and refining these measuring instruments to more effectively assess adolescents. This involves identifying key items crucial for overall wellbeing and developing distinct descriptions for depression and anxiety that do not overlap with stress, thereby minimising the adult-focused nature of these instruments. While the instruments used in the current study used were appropriate as they were available, validated for use, and commonly used in other research with adolescents (Duffy et al., 2005; Shaw et al., 2017; Szabó & Lovibond, 2006), the current study suggests that there is a need for further refinement in future research to ensure their continued suitability.

While the study provides valuable insights into the role of family support, religious practices, and adaptability in mitigating the potential negative impacts of remote learning during the COVID-19 lockdown, it is essential to recognise the limitations of these findings. The unique circumstances of the pandemic, including heightened fears of illness and mortality, likely influenced participants' responses and coping strategies. The observed benefits of strong family support and religious practices during this period may have been magnified by the extraordinary pressures of the lockdown, which could have driven a heightened focus on familial and spiritual support.

The adaptability demonstrated by students and the positive perception of their academic achievement during the lockdown might be specific to the pandemic environment. This context-specific response suggests that while these factors were beneficial during the lockdown, their impact may not be directly generalisable to other settings or future disruptions without further research.

Chapter 7: Conclusion

This study sought to assess the effects of the switch to online learning necessitated by the COVID-19 lockdown on the academic performance of middle school students in Saudi Arabia. Some results were expected, based on previous research, while some differed from the hypotheses. Wellbeing, gender, and the family's SES were found to be significant predictors of self-perceived academic achievement during the COVID-19 lockdown in KSA. These results were expected based on previous research. More surprisingly, lower levels of mental health were not found to correlate with reduced perceptions of academic performance. Age and amount of schoolwork were also not found to be significant factors in participants' perceptions of their academic performance.

An unexpected factor brought into focus by the study was the crucial role of family support and religious observance. Amidst the complexities of lockdown, familial bonds and shared religious practices emerged as pillars of strength, fostering student wellbeing and adaptability. With such support and despite challenges, students' adaptive capabilities were evident, indicating their potential for growth and learning amidst adversity.

The positive influence of family support on student wellbeing may be an explanation for the unexpectedly positive perceptions of the academic performance reported by most participants in this study. It was expected that the sudden change to online learning necessitated by the pandemic, alongside the isolation from peers and other stresses of lockdown, would negatively affect

perceived academic performance for these students. That this negative impact was not found suggests that wellbeing, supported in particular by family and religious faith, had a protective effect. Other potential aspects which may explain this result are participants' relatively high levels of family SES and low levels of mental health problems. These aspects necessitate future investigation for a comprehensive understanding of students' experiences during pandemic-induced lockdowns.

However, although the study lacked participation from students with low SES backgrounds, it reveals valuable insights into the ways in which students from diverse backgrounds cope with challenges. The study suggests that strong family engagement and a shared religious context can be beneficial in navigating adverse situations like the COVID-19 lockdown. This implication further indicates that these supportive mechanisms may also prove useful during other natural disasters, including possible future pandemics.

The available literature on this associated with remote learning during the COVID-19 pandemic is growing; however, studies are scarce in the context of KSA, particularly among Saudi middle-school students. Therefore, this study contributes to the existing body of research and helps to fill a knowledge gap by providing valuable insights into how a large-scale and disruptive event influenced students' psychological states and perceptions of their academic performance. The findings underscore the intricate associations between adolescents' social-emotional wellbeing, mental health, amount of schoolwork, demographics, familial and religious interactions, and self-perceived academic performance during an unexpected global crisis.

While initial negative impacts on the wellbeing, mental health, and self-perception of academic performance were reported by participants, often attributed to disrupted education and prevention of normal outdoor activities and face-to-face relationships, it is crucial to note that these obstacles also presented new opportunities for growth and adaptation. The quality of relationships and daily routines were affected, alongside a shift in interaction and learning mediums, heralding a

period of uncertainty that allowed students to enhance their adaptability skills. Dependency on digital interactions with teachers and peers for education and socialising, instead of traditional in-person interactions, brought students' ability to adapt to new circumstances into sharp focus. Despite facing challenges such as poor internet connectivity and potential inefficiencies in digital teaching methods, students' adaptive capabilities were prominently evident amidst adversity.

In terms of wellbeing, this study has demonstrated that the majority of middle-school students reported moderate to high levels of wellbeing amidst the crisis, despite the unprecedented challenges posed by the pandemic. Only a small proportion of the students in the study sample were languishing. Results also showed a significant correlation between high levels of wellbeing and perceived academic achievement, suggesting that wellbeing was a protective factor in the face of disruptions to normal classroom learning and confinement of students to their homes.

The current study substantively contributes to the body of literature on the relationship between wellbeing and academic achievement, particularly under the unique circumstances induced by the COVID-19 lockdown. The significant, positive association between wellbeing and perceived academic achievement suggests intriguing directions for further research seeking to establish a deeper understanding of the interplay between wellbeing and academic achievement. Policymakers need strategies to compensate for the learning loss and negative psychological effects posed by the pandemic (UNESCO, 2020), and these strategies may be informed by research into the role of wellbeing.

While the findings present a small subset of students experiencing severe to extreme levels of depression and anxiety, the majority did not show significant levels of mental health problems, suggesting that the COVID-19 pandemic had a relatively minor impact on the sample. These findings may reflect similar responses in middle school students within Mecca and Taif, and could hint at similar trends elsewhere within these regions. However, further investigation in more diverse settings across KSA is needed to confirm this. Unexpectedly, mental health issues did not affect

perceived academic achievement, even for the minority reporting poor mental health. This unexpected result might be illuminated by the extent to which participants reported family support and religious faith as sources of comfort and fortitude.

This study has shown how Saudi middle school students, with the support of their families and their religious faith, managed to effectively deal with the pressures they came under, and allowed the adversity experienced during the pandemic to often be transformed into opportunities for personal growth and positive learning experiences. Moreover, the study identified specific strategies that Saudi students found most useful in tackling the challenges experienced during the lockdown, which aligned with other Saudi researchers' findings (e.g, Algahtani et al., 2021; Alghamdi et al., 2022; Alsolais et al., 2021). The strategies that contributed to their wellbeing and lack of depression and anxiety revolved around three pillars: strong family support, personal development, and religious practices.

Also unexpectedly, the amount of schoolwork did not significantly correlate with perceived academic achievement. Qualitative results showed very mixed perceptions of schoolwork in terms of both volume and quality; some students reported finding schoolwork overwhelming and repetitive, while others found it consistent or even less demanding than pre-pandemic.

Despite the challenges of adapting very quickly to online learning, and the weaknesses some students reported in the technology used and the teaching methods, it appears that the experience of this cohort largely supports the success of the emergency shift to online learning in KSA compared to that in many other countries, perhaps due to high levels of confidence among teachers in the use of ICT (OECD, 2020a).

In terms of demographic factors, age was not found to affect perceived academic achievement. As expected, based on previous research, gender was found to impact academic self-perception, with female students reporting higher levels of achievement than males.

Socioeconomic status was an influential factor in perceived academic achievement. Although some research (Chen & Weikart, 2008; Chen et al., 2018; Harwell et al., 2017) has suggested that the strength of the relationship between academic achievement and SES has decreased in the past several decades, the current study revealed that it was still a significant indicator of academic achievement in the sample. Moreover, in the COVID-19 period, these social and economic inequalities became more evident due at least in part to the effects of pre-existing disparities in digital access for students from low SES families in lockdown (Di Petro et al., 2020). Further, research showing that higher SES families are more likely to actively support their children's education (Deles, 2021; Ribeiro et al.,2021) suggests that this factor may have influenced the findings in this study, especially considering the importance of family support reported in many qualitative responses.

Religious practices, deeply ingrained in the Saudi societal fabric, also appeared to play an instrumental role in preserving students' wellbeing and underpinning their ability to cope with the pandemic. The COVID-19 pandemic, though disruptive, has served as a learning experience for Saudi society, unveiling the efficacy of wellbeing and health-promoting systems in combating negative impacts of lockdown isolation.

In conclusion, this study highlights the diverse experiences of Saudi middle-school students during the COVID-19 pandemic, while offering a nuanced understanding of coping mechanisms and adaptability in crisis situations. The results provide valuable insights for educators, families, and policymakers, shedding light on the factors shaping students' learning experiences during this crisis and influencing them in future situations of a similar nature.

7.1 Implications for Educational Policy and Practice

The findings of this research contribute to an understanding of the role of the lockdown on depression, anxiety, and wellbeing and on their effects on perceived academic achievement for adolescents in KSA during the COVID-19 lockdown. These contributions have the potential to

improve policy and practice in real world situations where Saudi students are challenged with unexpected and unprepared for events in their academic learning.

The study identifies some shortcomings of remote learning in relation to wellbeing and perceived academic achievement. These challenges include internet connectivity issues, poor quality of online platform design, teachers' lack of technical literacy, drastic changes in instructional practices, significant changes in social interactions, and difficulties in understanding instructions. These issues, significantly highlighted during the pandemic lockdown, may have had a negative impact on students' wellbeing and academic performance. This information can help policymakers develop programs that promote students' wellbeing and ensure supportive learning environments, particularly for those who were disadvantaged during the pandemic lockdown. The findings also provide a theoretical basis for educators, administrators, practitioners, and families to take effective actions and interventions to mitigate the negative effects of the COVID-19 pandemic on the wellbeing of middle school students.

Research findings may also inform policy-makers, teachers and school leaders, about the importance of facilitating social interactions to bolster students' wellbeing and mental health. Providing psychological support and addressing social isolation among adolescents is crucial, as peer contact and social support play significant roles in their mental health. Such support networks may be encouraged and maintained in situations less extreme than that of the prolonged COVID-19 lockdown. The results of this study emphasise the importance of understanding that family support during challenging times can be extremely beneficial for young individuals. They suggest that, even after the conclusion of the pandemic and the related lockdown, families could continue to benefit from shared activities, shared religious experiences within the household, and increased involvement of parents in their children's education. This suggestion could inform future policy and public information in KSA.

Further, the study highlights the interconnectedness of students' activities, wellbeing, and academic achievement. Policymakers and educators should consider these relationships when designing curricula and learning experiences. Integrating strategies that promote positive wellbeing, such as engaging in schoolwork and exercise, can contribute to students' overall development and academic success.

The study emphasises the importance of effectively integrating religious elements within formal and informal education in religiously focused societies, such as KSA. Existing religious programmes within the education system can be utilised to strengthen students' wellbeing and ability to cope during challenging times. Nurturing environments and adult role models should facilitate meaningful engagement with these programs. Educational institutions in KSA should not only persist in integrating religious dimensions within their curricula but also underscore the importance of encouraging and supporting family engagement in religious activities. By acknowledging and strengthening these valuable family interactions, educational institutions can further augment the emotional and psychological support available to students during challenging circumstances, such as online learning or other disruptions.

Like many countries, KSA faced various challenges in the sudden shift to online learning necessitated by the COVID-19 pandemic. The relative likelihood of a similar disruption in the next decades (Williams et al., 2023) highlights the need for KSA to be better prepared for future disruptions that may require sudden school closures. This includes investing in teacher professional learning, improving infrastructure and access to online learning platforms, and evaluating the effectiveness of the platform itself. As previously stated, it is important to consider pedagogy and the nature of the platform used for online learning. Overall, the implication is that KSA should take proactive measures to ensure they are ready to transition to online learning in the event of future emergencies or crises.

Further, given the finding that SES had a significant impact on perceived academic achievement, Saudi policymakers have a responsibility to address and mitigate these educational inequalities associated with low SES and exacerbated by the pandemic lockdown (Suna et al., 2020). The case for introducing social and economic policies that empower and support students from lower SES backgrounds to climb the educational ladder, as proposed by Aashiq et al. (2023), should be considered in the Saudi educational landscape. Otherwise, there may be greater long-term consequences for a generation of the nation's young people in the post-COVID era: Those who have fallen behind, may get left behind (Emma et al., 2023).

In conclusion, this study lays the foundation for further exploration in the domains of education, wellbeing, and academic achievement in the context of educational policy. It is essential to approach the recommendations and future directions thoughtfully, considering the diverse educational landscapes and contexts in which they operate.

7.2 Recommendations

In light of the research findings and the complexities inherent in addressing educational challenges during a pandemic, several recommendations emerge in terms of research- based educational policies.

7.2.1 Quality Enhancement of Online Learning Platforms

The study highlighted challenges related to online learning platforms in KSA, the Madrasati platform in KSA. As educational institutions continue to navigate hybrid learning environments, it is crucial to invest in high-quality online platforms that support seamless interaction between students and teachers.

Additionally, fostering teachers' proficiency in utilising these platforms and ensuring students' comfort and familiarity with such technologies could enhance the effectiveness of online instruction. The need for robust online learning platforms could be considered. Further, professional

learning for teachers designed to increase their proficiency in the use of the platform could be implemented.

7.2.2 Family Involvement and Social Relationships

Policymakers and educational institutions might consider leveraging family involvement as a resource to foster holistic student development. Initiatives such as establishing collaborative programs between schools and families, organising workshops or training sessions for parents on how to support their children's learning at home, and creating communication channels to facilitate regular updates and feedback exchange between educators and families can strengthen the partnership. By emphasising the importance of family engagement and actively involving parents and caregivers in their children's education, schools can promote student success, wellbeing, and overall academic growth.

7.3 Future Research Directions

The significant, positive association between wellbeing and perceived academic achievement found in this study suggests intriguing directions for further research. Policymakers need strategies to compensate for the learning loss and negative psychological effects posed by the pandemic (UNESCO, 2020), particularly for disadvantaged groups. This demand necessitates a deeper understanding of the interplay between wellbeing and academic achievement.

Future research could consider implementing longitudinal studies to analyse the long-term effects of student wellbeing on academic performance. Additionally, conducting comparative studies across different educational settings or interventions aimed at enhancing student wellbeing and academic outcomes could provide valuable insights. Furthermore, exploring the role of specific factors such as social support, or coping mechanisms in mediating the relationship between wellbeing and academic success could offer a more nuanced understanding. For example, further investigation may uncover more about the relationship between personal characteristics, such as resilience and problem-solving, and external characteristics such as social support systems when

seeking to promote adolescent wellbeing. As qualities such as the ability to adapt and self-regulate were found to be important in protecting wellbeing and academic achievement for these participants, additional research could help to indicate how these characteristics might be nurtured in adolescents.

The significant findings of this study in relation to the role of families in supporting students during lockdowns present an opportunity for further investigation. Research could delve into whether the high level of family involvement observed during the lockdown continues after schools are reopened and students are no longer confined to their homes. Understanding the dynamics of family support beyond pandemic-related circumstances could inform strategies for enhancing student wellbeing, mental health, and academic achievement.

Further, as parental involvement in children's education has been indicated in this study as a positive influence in terms of both wellbeing and academic performance, future research could explore factors influencing this involvement. These could involve qualitative studies to understand parents' perspectives, experiences, and motivations, exploring factors such as parental beliefs about education, perceptions of their role, socioeconomic status, cultural influences, and access to resources. Additionally, quantitative research could analyse the correlation between parental involvement and academic outcomes, considering variables like family structure, parental education level, and the school environment. Experimental designs could also test the effectiveness of interventions aimed at promoting parental engagement.

The study also indicated a strong relationship between wellbeing (associated with higher perceived academic achievement), family relationships, and religious practices. However, the relationship between family relationships and religious faith was not explored. Future research may seek to clarify the extent to which these factors work in isolation to protect adolescent wellbeing. This might aim to provide more clarity on these factors by, for example, implementing experimental

research designs where these variables are carefully controlled, or conducting a systematic literature review to gain more insight into these factors.

The extent to which the specific cultural context of KSA, a strongly religious culture where Islam is part of most aspects of life including education (Alabdulaziz, 2019), influenced these results is also a point for further investigation. Future research may explore how cultural beliefs, values, and practices related to religious faith influenced adolescent wellbeing and academic performance during the challenging circumstances of the pandemic, and how different cultural contexts may have had differing impacts.

The results of this study in terms of the effects of depression and anxiety, amount of schoolwork involvement, and age on the students' perceived academic achievement were unexpected in the context of existing research suggesting potential influences (Aucejo et al., 2020; Lee, 2020). These aspects necessitate future investigation for a comprehensive understanding of students' experiences during pandemic-induced lockdowns (Aucejo et al., 2020; Chetty et al., 2023).

Future research might advance the understanding of changes in middle school student wellbeing and mental health as manifested by depression and anxiety during events similar to the COVID-19 pandemic. Additional knowledge could be gained by conducting a longitudinal study of a group of respondents as they confront the challenges of such an event, with the research continuing to record their responses and academic performance in the years following the return to "normality".

With such data, this current study could be replicated within certain parameters, yet reveal more about the students' wellbeing and mental health over the longer term. However, given the impossibility of predicting when another disruptive event on such a scale may arise, a series of longitudinal experimental studies could be conducted in non-crisis times to generate valuable baseline data to inform future studies of adverse events.

In terms of student perspectives on the online platform used for education during the pandemic, further research might investigate in more detail the user experience of digital educational channels from the perspectives of both teachers and students, seeking to define which factors are most influential in overcoming the challenges and maximising the potential of digital education.

As interviews in this study were conducted only with female students due to cultural codes in Saudi Arabia, there is a need to gain more comprehensive insights into male students' experiences for a more well-rounded understanding. This calls for more studies to understand the relationship between gender, self-concept, and academic achievement. Including qualitative data from male perspectives could yield valuable insights into the experiences and self-perceptions of male students, potentially revealing additional factors contributing to the observed differences in academic self-concept. This study highlights the need for future research that includes greater consideration of gender differences to provide a more comprehensive understanding of the relationship between gender and perceived academic achievement.

Future research would benefit from including participants from varied socioeconomic backgrounds to create a more comprehensive picture of the effects of crises such as the lockdown and should contemplate using a more varied or strategically chosen sample to capture the full range of psychological responses to situations when classroom learning is moved online.

Finally, future studies should explore the protective factors, such as strong family support, religious practices, and adaptability in varied contexts and conditions to determine if their impact remains consistent across different scenarios or if it is uniquely tied to the pandemic environment. Investigating these factors in non-pandemic conditions could provide a more comprehensive understanding of how family support, religious practices, and adaptability influence student wellbeing and academic achievement beyond the exceptional circumstances of the COVID-19 lockdown.

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Appendix A: Questionnaire and Interview Letters, and SBREC Approval Letters

Letter A: Mecca and Taif Recruitment Letter for Questionnaire (English & Arabic)

This study has the approval of the Flinders University Ethics Committee (see contact details below). Staff and schools will not be identified in the research, and questionnaires will be **anonymous**.

Any enquiries you may have concerning this research should be directed to me at the address given above or by telephone on 8201 5878 or e-mail grace.skrzypiec@flinders.edu.au

Do you approve this study at your school?

If so, you will need to sign an approval letter which Shatha will provide and forward to the Flinders University Ethics Committee.

I hope that you will give this request due consideration and I assure you that Shatha is willing to work with you in a manner which suits the school and which will cause minimal disruption to the school community.

Yours sincerely

Dr Grace Skrzypiec

BSc(Hons), Grad Dip Ed, MEd, PhD

Director Student Wellbeing and Prevention of Violence Research Centre (SWAPv)

College of Education, Psychology and Social Work

Flinders University

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee – # 7077. For more information regarding ethical approval of the project the Secretary of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au.

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جامعة فلندرز
مدرسة التربية
كلية التربية وعلم النفس والخدمة الاجتماعية
ص.ب.2100
SA 5001 أديلد-
هاتف:5878 8201 08 61+
فاكس 3184 8201 08 61+
الموقع الإلكتروني:
http://ehlt.flinders.edu.au/education/
رقم مقدم الخدمة التعليمية للطلاب الأجانب:

د. جريس سكرزيبيتش
البريد الإلكتروني:
grace.skrzypiec@flinders.edu.au
الموقع الإلكتروني:
http://www.flinders.edu.au/people/grace.skrzypiec

[May 2020]

إلى إدارة التعليم بمنطقة مكه المكرمه

دراسة تأثير الحجر المنزلي نتيجة تفشي فيروس كورونا المستجد COVID-19 على سرور الطلاب وتجاربهم العدوانية

أكتب إليكم لطلب المساعدة في دراسة تأثير الحجر المنزلي نتيجة تفشي فيروس كورونا المستجد COVID-19 على رفاهة الطلاب وتجاربهم العدوانية

تهدف هذه الدراسة، التي تديرها المعلمة/شذى أحمد الحارثي كجزء من بحث الدكتوراه، إلى دراسة رفاهة الطلاب في المدارس المتوسطة وتجاربهم العدوانية أثناء التعلم من المنزل أثناء الحجر المنزلي. الهدف هو إعلام المجتمعات المدرسية حول احتياجات الرعاية للطلاب بمجرد عودتهم إلى المدرسة بعد عزلتهم وسيساعد ذلك صانعي السياسات في صياغة برامج لتحسين سرور الطلاب وضمان بيئات تعلم مدرسية إيجابية للطلاب. نطلب إذنكم لإجراء هذا البحث في جميع المدارس المتوسطة المندرجة تحت إطار مدينة مكه المكرمه. سيستخدم البحث نهجًا كميًا حيث سيتم دعوة طلاب المدرسة المتوسطه (الذين تتراوح أعمارهم بين 11 و16 عامًا) للمشاركة في استبيان مجهول من 12 إلى 15 دقيقة عبر الإنترنت. سيحتوي الاستبيان على أسئلة حول تجارب العدوان (بما في ذلك التنمر) بالإضافة للإجراءات المتعلقة برفاهة الطالب ومرونته النفسية وما قد يشعر به من قلق واكتئاب إلى جانب أسئلة عامة حول التجارب التي مر بها الطالب أثناء فترة الحجر،

سيتم إجراء البحث في غضون الأسابيع القليلة القادمة، وسيكتمل جمع البيانات بحلول 30 يونيو 2020.

على ماذا ينطوي البحث؟

*أدنى مشاركة ممكنة من قبل العاملين بالمدرسة

وبعد الحصول على موافقتكم سأقوم بما يلي:

- إرسال معلومات عن الدراسة مع رابط للوصول إلى لاستبيان على الإنترنت
- الإجابة عن أي أسئلة قد تكون لديكم حول البحث
- تزويدكم بالنتائج التي يتم التوصل إليها في نهاية المشروع البحثي إلى جانب تزويدكم بتقرير مسنقل عن نتائج الدراسة المتعلقة بمدرستكم وهذه النتائج ستكون متاحة بحلول الفصل الدراسي(الترم) الرابع من عام 2020
- توفير الموارد المتعلقة بالرعاية الرعوية/الدينية والتي من شأنها تعزيز رفاهة الطلاب بعد الحجر

حصلت هذه الدراسة على موافقة لجنة الأخلاقيات في جامعة فلندرز (تفاصيل الاتصال أدناه).
ينبغي ارسال أي استفسارات قد تكون لديك بخصوص هذا البحث إلي علي هذا البريد
Alha0349@flinders.edu.au
او مشرفتي بجامعه فلندرز على العنوان المذكور أعلاه أو عبر الهاتف على الرقم 8278 5878 أو البريد الإلكتروني
grace.skrzypiec@flinders.edu.au

هل توافقون على اجراء هذه الدراسة في مدارسكم؟

إذا كان الأمر كذلك، فستحتاج إلى التوقيع على خطاب موافقة ستقدمه شذى وتحيله إلى لجنة الأخلاقيات بجامعة فلندرز.

آمل أن تولي هذا الطلب الاعتبار الواجب وأؤكد لك أن شذى على استعداد للعمل معك بطريقة تناسب المدرسة والتي سوف تسبب الحد الأدنى من الاضطراب لمجتمع المدرسة.
تفضلوا بقبول فائق الاحترام

الدكتورة غريس سكرزيبيك (مشرفه)

بكالوريوس العلوم الشرفي-دبلوم عالي في التربية-ماجستير في التربية-دكتوراه في الفلسفة

مدير مركز أبحاث رفاهة الطلاب ومكافحة العنف

كلية التربية وعلم النفس والخدمة الاجتماعية
جامعة فلندرز

تمت الموافقة على هذا البحث من قبل لجنة أخلاقيات الأبحاث الاجتماعية والسلوكية #7077

للمزيد من المعلومات فيما يتعلق بالموافقة الأخلاقية على هذا المشروع البحثي يمكنكم الواصل هاتفيا مع أمين سر اللجنة على رقم 8201 3116 أو عن طريق الفاكس رقم 8201 2035 أو عن طريق البريد الإلكتروني التالي: human.researchethics@flinders.edu.au.

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I hope that you will give this request due consideration and I assure you that Shatha is willing to work with you in a manner which suits the school and which will cause minimal disruption to the school community.

Yours sincerely

[Signature] [stamp]

Dr Grace Skrzypiec

BSc(Hons), Grad Dip Ed, MEd, PhD

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College of Education, Psychology and Social Work

Flinders University

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جامعة فلندرز
مدرسة التربية
كلية التربية وعلم النفس والخدمة الاجتماعية
ص.ب.2100
SA 5001 أديلايد-
هاتف:5878 8201 08 61+
فاكس 3184 8201 08 61+
الموقع الإلكتروني:
http://ehlt.flinders.edu.au/education/
رقم مقدم الخدمة التعليمية للطلاب الأجانب:

Flinders UNIVERSITY

د. جريس سكرزيبيتش
البريد الإلكتروني:
grace.skrzypiec@flinders.edu.au
الموقع الإلكتروني:
http://www.flinders.edu.au/people/grace.skrzypiec

[May 2020]

إلى إدارة التعليم بمنطقة الطائف

دراسة تأثير الحجر المنزلي نتيجة تفشي فيروس كورونا المستجد COVID-19 على سرور الطلاب وتجاربهم العدوانية

أكتب إليكم لطلب المساعدة في دراسة تأثير الحجر المنزلي نتيجة تفشي فيروس كورونا المستجد COVID-19 على رفاهة الطلاب وتجاربهم العدوانية

تهدف هذه الدراسة، التي تديرها المعلمة/شذى أحمد الحارثي كجزء من بحث الدكتوراه، إلى دراسة رفاهة الطلاب في المدارس المتوسطة وتجاربهم العدوانية أثناء التعلم من المنزل أثناء الحجر المنزلي. الهدف هو إعلام المجتمعات المدرسية حول احتياجات الرعاية للطلاب بمجرد عودتهم إلى المدرسة بعد عزلتهم وسيساعد ذلك صانعي السياسات في صياغة برامج لتحسين سرور الطلاب وضمان بيئات تعلم مدرسية إيجابية للطلاب. نطلب إذنكم لإجراء هذا البحث في جميع المدارس المتوسطة المندرجة تحت إطار مدينة الطائف. سيستخدم البحث نهجًا كميًا حيث سيتم دعوة طلاب المدرسة المتوسطه (الذين تتراوح أعمارهم بين 11 و16 عامًا) للمشاركة في استبيان مجهول من 12 إلى 15 دقيقة عبر الإنترنت. سيحتوي الاستبيان على أسئلة حول تجارب العدوان (بما في ذلك التنمر) بالإضافة للإجراءات المتعلقة برفاهة الطالب ومرونته النفسية وما قد يشعر به من قلق واكتئاب إلى جانب أسئلة عامة حول التجارب التي مر بها الطالب أثناء فترة الحجر،

سيتم إجراء البحث في غضون الأسابيع القليلة القادمة، وسيكتمل جمع البيانات بحلول 30 يونيو 2020.

على ماذا ينطوي البحث؟

*أدنى مشاركة ممكنة من قبل العاملين بالمدرسة

وبعد الحصول على موافقتكم سأقوم بما يلي:

- إرسال معلومات عن الدراسة مع رابط للوصول إلى لاستبيان على الإنترنت
- الإجابة عن أي أسئلة قد تكون لديكم حول البحث
- تزويدكم بالنتائج التي يتم التوصل إليها في نهاية المشروع البحثي إلى جانب تزويدكم بتقرير مسنقل عن نتائج الدراسة المتعلقة بمدرستكم وهذه النتائج ستكون متاحة بحلول الفصل الدراسي(الترم) الرابع من عام 2020
- توفير الموارد المتعلقة بالرعاية الرعوية/الدينية والتي من شأنها تعزيز رفاهة الطلاب بعد الحجر

حصلت هذه الدراسة على موافقة لجنة الأخلاقيات في جامعة فلندرز (تفاصيل الاتصال أدناه).
ينبغي ارسال أي استفسارات قد تكون لديك بخصوص هذا البحث إلي علي هذا البريد
Alha0349@flinders.edu.au
او مشرفتي بجامعه فلندرز على العنوان المذكور أعلاه أو عبر الهاتف على الرقم 8278 5878 أو البريد الإلكتروني
grace.skrzypiec@flinders.edu.au

هل توافقون على اجراء هذه الدراسة في مدارسكم؟

إذا كان الأمر كذلك، فستحتاج إلى التوقيع على خطاب موافقة ستقدمه شذى وتحيله إلى لجنة الأخلاقيات بجامعة فلندرز.

آمل أن تولي هذا الطلب الاعتبار الواجب وأؤكد لك أن شذى على استعداد للعمل معك بطريقة تناسب المدرسة والتي سوف تسبب الحد الأدنى من الاضطراب لمجتمع المدرسة.
تفضلوا بقبول فائق الاحترام

الدكتورة غريس سكرزيبيك (مشرفه)

بكالوريوس العلوم الشرفي-دبلوم عالي في التربية-ماجستير في التربية-دكتوراه في الفلسفة

مدير مركز أبحاث رفاهة الطلاب ومكافحة العنف

كلية التربية وعلم النفس والخدمة الاجتماعية
جامعة فلندرز

[Signature] [stamp]

تمت الموافقة على هذا البحث من قبل لجنة أخلاقيات الأبحاث الاجتماعية والسلوكية #7077

للمزيد من المعلومات فيما يتعلق بالموافقة الأخلاقية على هذا المشروع البحثي يمكنكم الواصل هاتفيا مع أمين سر اللجنة على رقم 3116 8201 أو عن طريق الفاكس رقم 2035 8201 أو عن طريق البريد الإلكتروني التالي: human.researchethics@flinders.edu.au.

Mecca Permission Letter for Questionnaire (English & Arabic)

المملكة العربية السعودية
وزارة التعليم
(٢٨٠)
الإدارة العامة للتعليم بمنطقة مكة المكرمة

وزارة التعليم
Ministry of Education

الرقم: .....
التاريخ: .....
المرفقات: .....

إدارة التخطيط والتطوير

((نموذج الكتروني لتسهيل مهمة باحث))

تعميم إلى جميع المدارس المتوسطة(بنين-بنات)

المكرم/ةقائد/ة المدرسة المتوسطة ..... وفقه/ـا الله

السلام عليكم ورحمة الله وبركاته، وبعد:

إشارة إلى خطاب جامعة فلندرز باستراليا برقم (بدون) وتاريخ (بدون) بشأن طلب الباحثة: شذى احمد عوض الحارثي، والتي ترغب في تطبيق أداة دراستها العلمية وذلك استكمالا الحصول على الدكتوراه وفق البيانات أدناه:

عنوان الدراسة	دراسة تأثير الحجر المنزلي نتيجة تفشي فيروس كورونا المستجد COVID-١٩ على سرور الطلاب وتجاربهم العدوانية		
عينة الدراسة	طلاب وطالبات		
أداة الدراسة	استبيان		
الرابط الالكتروني للأداة	https://medu.edu.sa/api/geturl/prospector/57	باركود	
بريد الكتروني	flinders.edu.au@alha٠٣٤٩	الجوال	+٩٦٦٥٥٤٧٢٦٢٢٠

عليه نأمل تسهيل مهمة الباحثة ونشر الرابط والباركود وحث الطلاب/ات لتعبئته ، شاكرين لكم حسن تعاونكم في خدمة البحث العلمي.

وتقبلوا تحياتي وتقديري ،،،

مدير عام التعليم بمنطقة
مكة المكرمة

د. أحمد بن محمد الزائدي

صادر داخلي - 36503 / 1441/09/21

عزيزية – هاتف: ٠١٢ ٥٥٨٠٢٢٨ – فاكس: ٠١٢ ٥٥٧٥٢٠

Kingdom of Saudi Arabia
Ministry of Education
General Directorate of Education in Makkah
Al-Mukarramah
Department of Planning and Development

وزارة التعليم
Ministry of Education

Date14/5/2020

Electronic form to facilitate the task of the researcher
Circulated to all intermediate schools for boys/girls

Dear Sir/ Madam,the principle of intermediate school....., peace be upon you,

Referring to the letter of Flinders University in Australia, regarding the researcher's request: Shatha Ahmed Awad Al-Harthi, who requested the application of her scientific study instrument in order to complete her doctorate, according to the information below:

Title of the study	Study of the impact of COVID-19 lockdown on student wellbeing and experiences of aggression		
Study sample	Girls and boys - Intermediate schools		
Study tool	Survey		
Electronic link to the tool	https://medu.edu.sa/api/geturl/prospector/ 57 Under construction		barcode
Phone number	966554726220+	Email Address	Alha0349@flinders.edu.au

Therefore, we hope to facilitate the task of the researcher, publish the link, and encourage the students to fill it out. Thank you for your cooperation in the service of scientific .research

Kind Regards

Director General of Education,
Makkah Region

Dr Ahmad Mohamed Alzaidi

Internal issued 36503/ Date14/5/2020

Taif Permission Letter for Questionnaire (English & Arabic)

المملكة العربية السعودية
وزارة التعليم
الإدارة العامة للتعليم بمحافظة الطائف
إدارة التخطيط والمعلومات
البحوث والدراسات

وزارة التعليم
Ministry of Education

الرقم: 20474
التاريخ: 1441/09/20
المشفوعات:

الموضوع: تسهيل مهمة الباحث: قذى احمد عوض الحارثي
في تطبيق دراسة علمية (دكتوراه)

المكرم قائد مدرسة المتوسطه

وفقكم الله

اسم الباحث	شذى احمد عوض الحارثي		
الجامعة	جامعه فلندرز		
الكلية	كليه التربيه وعلم النفس والخدمة لاجتماعيه	**التخصص**	التربيه
الغرض من الدراسة	دكتوراه		
عنوان الدراسة	لعى سرور COVID-رداس ةثأتير لاحجر لامنزلي يتنجة تفشي فيروس وكرونا المستجد د19 الطلاب وتجاربهم العدوانيه		
أدوات الدراسة	استبانة	**عينة الدراسة**	طلاب طالبات

السلام عليكم ورحمة الله وبركاته,,, وبعد:

فبناءً على ما تقدّم به الباحث الموضح اسمه أعلاه لتطبيق الأداة الخاصة بدراسته, ونظراً لاكتمال إجراءات الدراسة نأمل منكم تسهيل مهمته في التطبيق على العينة المشار إليها .

شاكرين لكم ومقدرين تعاونكم ,,,

المدير العام للتعليم بمحافظة الطائف

أ. طلال مبارك اللهيبي

Kingdom of Saudi Arabia
Ministry of Education
General Directorate of Education in Taif
Department of Planning and
Information Research and Studies

وزارة التعليم
Ministry of Education

No. 20474

Date 13/05/2020

Subject: Facilitating the task of the researcher: Shatha Ahmed Awad Al-Harthi to apply a scientific study, Doctoral degree

Dear Sir/Madam,the principle of the intermediate school.....

Researcher name	Shatha Ahmad Awad Al-Harthi		
University	Flinders University	**Field of Specialization**	Education
School	College of Education, Psychology and Social Work		
Purpose of the study	doctorate degree		
Title of the study	Study of the impact of COVID-19 lockdown on student wellbeing and experiences of aggression		
Study instruments	Survey	**Stusy sample**	Girls students boys students

Peace be upon you

Upon request of the researcher, whose name described above, on the application of her study instrument, and owing to the completion of the study procedure we hope that you will facilitate the task of the researcher to apply her study instrument on the aforementioned sample

Thank you very much for your kind cooperation

Director General of Education, Taif Governorate

Mr. Talal Moubark Allhaibe

Web site : researches.taifedu.gov.sa Taif / Phone: 0127321754 Fax: 0127329316

Letter B: Principal Recruitment Letter for Questionnaire (English & Arabic)

Letter to principals

Flinders UNIVERSITY

Dr Grace Skrzypiec
grace.skrzypiec@flinders.edu.au
http://www.flinders.edu.au/people/grace.skrzypiec

School of Education
College of Education, Psychology & Social Work
GPO Box 2100
Adelaide SA 5001
Tel: +61 08 8201 5878
Fax: +61 08 8201 3184
http://ehlt.flinders.edu.au/education/
CRICOS Provider No. 00114A

[enter
school address]

[Enter date]

Dear [enter Principal's name]

Re: Study of the impact of COVID-19 lockdown on student wellbeing and experiences of aggression

I am writing to you to seek your assistance with a study of the impact of COVID-19 lockdown on student wellbeing and experiences of aggression.

This study, being run by Shatha Ahmad Alhathi as part of her PhD research, seeks to examine the wellbeing of students in Years 6-10 and their experiences of aggression while learning from home during lock-down. The aim is to inform school communities about the pastoral care needs of students once they return to school following their isolation.

We seek your permission to conduct this research at your school.

The research will use a quantitative approach where Year 6-10 students (aged 11-16 years) will be invited to participate in a 12-15 minute **anonymous** online questionnaire. The questionnaire will contain questions about experiences of aggression (including bullying) as well as measures of wellbeing, resilience, anxiety, depression and general questions about their experiences while in lockdown.

The research would take place, within the next few weeks, and data collection should be completed by June 30, 2020.

What does it involve?

- **Minimal involvement by school staff.** With your approval, I will:
  - Send you information about the study with a link to the online questionnaire
  - Answer any questions you may have about the research
  - Provide you with findings at the end of the project and also provide you with an independent report of your school's results. Findings should be available by the end of Term 4, 2020.
  - Provide pastoral care resources that will enhance student wellbeing following the lock-down.

This study has the approval of the Flinders University Ethics Committee (see contact details below). Staff and schools will not be identified in the research, and questionnaires will be **anonymous**.

Any enquiries you may have concerning this research should be directed to me at the address given above or by telephone on 8201 5878 or e-mail grace.skrzypiec@flinders.edu.au

Do you approve this study at your school?

If so, you will need to sign an approval letter which Shatha will provide and forward to the Flinders University Ethics Committee.

I hope that you will give this request due consideration and I assure you that Shatha is willing to work with you in a manner which suits the school and which will cause minimal disruption to the school community.

Yours sincerely

Dr Grace Skrzypiec

BSc(Hons), Grad Dip Ed, MEd, PhD

Director Student Wellbeing and Prevention of Violence Research Centre (SWAPv)

College of Education, Psychology and Social Work

Flinders University

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee – # 7077. For more information regarding ethical approval of the project the Secretary of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au.

خطاب لمديري المدارس

جامعة فلندرز
كلية التربية وعلم النفس والخدمة الاجتماعية
ص.ب.2100
SA 5001 أديلايد-
هاتف:5878 8201 08 61+
فاكس 3184 8201 08 61+
الموقع الالكتروني:
http://ehlt.flinders.edu.au/education/
رقم مقدم الخدمة التعليمية للطلاب الأجانب:
00114A

د. جريس سكرزيبيتش
البريد الإلكتروني:
grace.skrzypiec@flinders.edu.au
الموقع الإلكتروني:
http://www.flinders.edu.au/people/grace.skrzypiec

[أدخل عنوان المدرسة]

[أدخل التاريخ]

السيد المحترم

[أدخل اسم مدير المدرسة]

الموضوع: دراسة تأثير الحجر المنزلي نتيجة تفشي وباء كورونا المستجد (كوفيد-19) على سلامة/رفاه الطلاب والطالبات في المدارس المتوسطة، والتجارب التي يمرون بها من الشعور بالعدوان اثناء فترة الحجر.

أكتب إليكم طالبا المساعدة فيما يتعلق بالدراسة التي تحمل عنوان" تأثير الحجر المنزلي نتيجة تفشي وباء كورونا المستجد (كوفيد-19) علي سلامة/رفاه الطلاب والطالبات في المدارس المتوسطة، والتجارب التي يمرون بها من الشعور بالعدوان اثناء فترة الحجر".

تجري الباحثة/شذا أحمد الحارثي الطالبة هذه الدراسة كجزء من البحث المتعلق بدرجة الدكتوراه بكلية التربية وعلم النفس والتعليم الخدمة الاجتماعية بجامعة فلندرز.

تسعى الباحثة من خلال هذه الدراسة لبحث الأثر على سلامة/رفاه الطلاب/الطالبات (بما في ذلك الاكتئاب والقلق) في السنوات الدراسية من الصف (الأول المتوسط) الي الصف الثالث متوسط والتجارب العدوانية التي تعرضوا لها أثناء خضوعهم للتعليم المنزلي خلال الحجر،

وتهدف الدراسة إلى إطلاع المجتمعات المدرسية على احتياجات الطلاب من حيث الرعاية الرعوية/الدينية لدى عودتهم إلى مدارسهم بعد انتهاء فترة عزلهم.

وعليه فنحن نطلب منكم السماح بإجراء هذا البحث في مدرستكم،

وسيستخدم البحث المنهج الكمي حيث سيدعى الطلاب في السنوات الدراسية من الصف الأول متوسط الي الصف الثالث متوسط (والتي تتراوح أعمارهم من ١١-١٦ سنة) إلى المشاركة في استبيان ممجهول على الإنترنت يستغرق ١٢-١٥ دقيقة ويحتوي على أسئلة حول التجارب العداونية التي تعرضوا لها (بما في ذلك التنمر) بالإضافة للإجراءات المتعلقة برفاهته الطالب/الطالبة ومرونته/مرونتها النفسية وما قد يشعر به من قلق واكتئاب إلى جانب أسئلة عامة حول التجارب التي مر بها الطالب/الطالبة أثناء فترة الحجر،

وسيجرى البحث خلال الأسابيع القليلة المقبلة على أن ينتهي جمع البيانات بحلول 30 يونيو 2020

على ماذا ينطوي البحث.؟

*أدنى مشاركة ممكنة من قبل العاملين بالمدرسة

وبعد الحصول على موافقتكم سأقوم بما يلي:

- إرسال معلومات عن الدراسة مع رابط للوصول إلى لاستبيان على الإنترنت
- الإجابة عن أي أسئلة قد تكون لديكم حول البحث

- تزويدكم بالنتائج التي يتم التوصل إليها في نهاية المشروع البحثي إلى جانب تزويدكم بتقرير مستقل عن نتائج الدراسة المتعلقة بمدرستكم وهذه النتائج ستكون متاحة بحلول الفصل الدراسي(الترم) الرابع من عام 2020
- توفير الموارد المتعلقة بالرعاية الرعوية/الدينية والتي من شأنها تعزيز رفاهة الطلاب بعد الحجر

وهذه الدراسة معتمدة من قبل لجنة أخلاقيات البحث التابعة لجامعة فلندرز (برجاء الاطلاع على بيانات الاتصال المفصلة أدناه) ولن يتم الكشف عن هوية المدارس والعاملين المشاركين في البحث كما ستكون الاستبيانات مجهلة بشكل كامل.

يراعى توجيه أي استفسارات متعلقة بهذا البحث إلى شخصيا على العنوان المبين بعاليه أو هاتفيا على رقم 8201 5878 أو عن طريق البريد الإلكتروني التالي: grace.skrzypiec@flinders.edu.au

هل توافق على إجراء هذه الدراسة في مدرستك؟

في حالة موافقتكم سيتعين عليكم توقيع خطاب الموافقة التي ستقدمه الباحثة/ شذا إليكم ومن ثم إعادة توجيهه إلى لجنة أخلاقيات البحث التابعة لجامعة فلندرز.

آمل أن يتلقى طلبنا ما يستحق من كريم اهتمامكم ونؤكد لسيادتكم أن الباحثة/شذا على كامل الاستعداد للتعاون معكم بالشكل الذي ترونه مناسبا لمدرستكم وبما يضمن القدر الأدنى من التعطيل لأنشطة المجتمع المدرسي،

وختاما تقبلوا خالص احترامي،،

د.جريس سكرزيبيتش(مشرفة)

بكالوريوس العلوم الشرفي-دبلوم عالي في التربية-ماجستير في التربية-دكتوراه في الفلسفة

مدير مركز أبحاث رفاهة الطلاب ومكافحة العنف

كلية التربية وعلم النفس والخدمة الاجتماعية

جامعة فلندرز

تمت الموافقة على هذا البحث من قبل لجنة أخلاقيات الأبحاث الاجتماعية والسلوكية #7077

للمزيد من المعلومات فيما يتعلق بالموافقة الأخلاقية على هذا المشروع البحثي يمكنكم الواصل هاتفيا مع أمين سر اللجنة على رقم 8201 3116 أو عن طريق الفاكس رقم 8201 2035 أو عن طريق البريد الإلكتروني التالي: human.researchethics@flinders.edu.au.

Principal Consent Form for Questionnaire (English & Arabic)

Professor Amanda Kearney
Chair Human Research Ethics Committee
Flinders University

Insert date

Dear Professor Kearney

Re: Research Administration - Ethics (Project Number 7077).

I have been briefed about the study "Study of the impact of COVID-19 lockdown on student wellbeing and experiences of aggression" being run by Shatha Ahmad Alharthi in Saudi Arabia.

I understand that the research has been approved by the Human Research Ethics Committee at Flinders University. In compliance with the Ethics Committee requirement, I write to confirm that I approve of the study being undertaken by Shatha Ahmad Alharthi in …. INSERT name of the region or town/city

In consenting to the study, I agree to provide support by notifying parents about the research and allowing students (aged 11-16 years) to volunteer for participation. *Change as needed*

Shatha has indicated that the survey will be anonymous and that she will provide a report of her findings in December, 2020.

I have no objection in Shatha undertaking the survey following the protocol she has indicated.

Yours truly,

INSERT Name and details of person

الأستاذ د. أماندا كيرني
رئيس لجنة أخلاقيات الأبحاث البشرية
جامعة فلندرز
أدخل التاريخ
السيدة الأستاذة د. كيرني المحترمة
الموضوع:إدارة الأبحاث- الأخلاقيات(المشروع رقم 7077)
تلقيت إيجازا بشأن الدراسة التي تحمل عنوان"أثر الحجر المتعلق بفيروس كورونا المستجد على رفاهة الطلاب وما يتعرضون له من تجارب عدوانية" والتي تجريها الباحثة/ شذا أحمد الحارثي بالمملكة العربية السعودية،
وحسبما فهمت فقد تم اعتماد البحث من قبل لجنة أخلاقيات الأبحاث البشرية بجامعة فلندرز،
ولذلك فامتثالا مني لمتطلبات لجنة أخلاقيات الأبحاث بجامعة فلندرز فقد بادرت بالكتابة إليكم لأؤكد على موافقتي على الدراسة التي تقوم بها شذا أحمد الحارثي في...(**أدخل اسم المنطقة أو المدينة/البلدة**)،
وبناء على موافقتي على الدراسة المذكورة فقد وافقت كذلك على تقديم الدعم من خلال إخطار الأباء/أولياء الأمور بخصوص البحث والسماح للطلاب (التي تتراوح أعمارهم من 11-16 عاما بالتطوع للمشاركة(**تُجرى التغييرات اللازمة**)،
وقد أشارت الباحثة / شذا بأن الاستقصاء سيكون مجهلا وبأنها ستقدم تقريرا بما تتوصل إليه من نتائج في ديسمبر 2020
وعليه فلا مانع لدي في إجراء الباحثة شذا لهذا الاستقصاء طبقا للبروتكول المشار إليه
مع خالص الاحترام
أدخل اسم وبيانات الشخص

Letter C: Parent and Child Recruitment Letter for Questionnaire (English &Arabic)

Flinders UNIVERSITY

PARTICIPANT INFORMATION STATEMENT AND CONSENT FORM
FOR PARENTS/GUARDIANS and CHILDREN

Study of the impact of COVID-19 lockdown on student wellbeing and experiences of aggression

Researcher: Shatha Ahmad Alharthi, College of Education, Psychology and Education.

This study id being run in Saudi Arabia by Mrs Shatha Ahmad Alharthi, as part of her PhD research dissertation under the supervison of Dr Grace Skrzypiec, College of Education, Psychology and Social Work, Flinders University, South Australia. Data collected by Shatha will be used by her to understand the impact of COVID-19 lockdown on students in Saudi Arabia. The data will also form part of a global study examining this impact on students in other parts of the world.

What is the study about?
This study seeks to examine the wellbeing (including depression and anxiety) of students in Years 6-10 and their experiences of aggression while learning from home during lock-down. The aim is to inform school communities about the pastoral care needs of students once they return to school following their isolation.

If you consent to your child's participation, what will she/he be asked to do?
Students will be asked to complete a 12-15 minute **anonymous online** questionnaire and answer questions about their experiences of aggression (including bullying) during lock-down, their wellbeing, resilience and mental health.

Participants and the school will not be identified in any subsequent reports. Students do not have to answer any question they don't wish to and they are free to withdraw at any time.

What are the benefits of participating in this study?
Participants may not directly benefit from this research. However, the findings will provide information about the impact of social distancing and isolation on student wellbeing. This study will provide an indication of the additional support studenst will need once they return to school following a lift of restrictions. This will assist policy makers in formulating programs to enhance student wellbeing and ensure positive school learning environments for students.

What are the risks of participating?
There is a risk that a student may become upset if a question triggers a memory of a past incident. Phone numbers and links to online help available for assistance and support will be provided at the end of the online questionnaire.

What about confidentiality?

Questionnaires will have **no names** and will be entirely anonymous. No one at the school will see questionnaire responses. In any publication of results, information will be provided in such a way that your child and the school cannot be identified.

What if I have complaints about the study?
This study has been reviewed and approved by the Flinders University Social and Behavioural Research Ethics Committee. If you have any concerns or complaints about the study you can contact the Secretary of the Committee on 8201 3116, or by fax on 8201 2035 or by email human.researchethics@flinders.edu.au. Any complaint you make will be investigated promptly and you will be told of the outcome. You will be given a copy of this form to keep.

What do I do now?
If you and your child agree to taking part in the study, please submit the Participant Information Statement and Consent form on the study website (www.research-all.org) and then allow your child to begin the online questionnaire. (Please note that consent forms and the questionnaire are not connected.)
Consent Form: https://research-all.org/Parent---Carer-Consent-Form.php
Questionnaire: https://qualtrics.flinders.edu.au/jfe/form/SV_bKm199LpMADYdpj

If you have any further questions or would like further information about this study or have any comments during the project, please feel free to contact Shatha or her supervisor by e-mail: alha0349@flinders.edu.au or grace.skrzypiec@flinders.edu.au or phone: 8201 5878.

Thank you very much for taking the time to read this and considering whether you will allow your child to participate.

Yours sincerely,

Mrs Shatha Ahmad Alharthi

PhD candidate
College of Education, Psychology and Social Work
Flinders University

Dr Grace Skrzypiec

BSc(Hons), Grad Dip Ed, MEd, PhD

Director Student Wellbeing and Prevention of Violence Research Centre (SWAPv)

Flinders University

جامعة فلندرز

صحيفة بيانات المشارك وإستمارة الموافقة للأباء وأولياء الأمور والأطفال

دراسة تأثير الحجر المنزلي نتيجة تفشي وباء كورونا المستجد (كوفيد-19) علي سلامة/رفاه الطلاب والطالبات في المدارس المتوسطة، والتجارب التي يمرون بها من الشعور بالعدوان اثناء فترة الحجر.

الباحثة/شذا أحمد الحارثي ، كلية التربية و علم النفس والتعليم-الخدمة الاجتماعية بجامعة فلندرز.

يتم إجراء هذه الدراسة في المملكة العربية السعودية من قبل الباحثة شذى أحمد الحارثي ، كجزء من أطروحة بحث الدكتوراه تحت إشراف **الدكتورة غريس سكرزيبيك ، كلية التربية وعلم النفس والعمل الاجتماعي ، جامعة فلندرز ، جنوب أستراليا.** البيانات التي جمعتها شذى ستستخدمها لفهم تأثير إغلاق COVID-19 على الطلاب في المملكة العربية السعودية. ستشكل البيانات أيضًا جزءًا من دراسة عالمية تدرس هذا التأثير على الطلاب في أجزاء أخرى من العالم.

ما هو موضوع الدراسة؟

تسعى الباحثة من خلال هذه الدراسة لبحث الأثر على سلامة/رفاه الطلاب (بما في ذلك الاكتئاب والقلق) في السنوات الدراسية من الصف (الأول المتوسط) الي الصف الثالث متوسط والتجارب العدوانية التي تعرضوا لها أثناء خضوعهم للتعليم المنزلي خلال الحجر،

وتهدف الدراسة إلى إطلاع المجتمعات المدرسية على احتياجات الطلاب من حيث الرعاية الوعوية/الدينية لدى عودتهم إلى مدارسهم بعد انتهاء فترة عزلهم.

ماذا سيُطلب من ابنك/ابنتك القيام به في حالة موافقتك على مشاركته/مشاركتها بالاستقصاء ؟

سيطلب من الطالب/الطالبة استيفاء استبيان على الإنترنت مدته ١٢-١٥ دقيقة يجيب /تجيب فيه على أسئلة متعلقة بالتجارب العدوانية التي تعرض/تعرضت لها(بما في ذلك التنمر)أثناء فترة الحجر وأثر ذلك على رفاهته/رفاهتها ومرونته/مرونتها النفسية وصحته/صحتها العقلية وتصوره /تصورها الذاتي،

ولن يتم الكشف عن هوية المشاركين أو المدرسة في أي من التقارير اللاحقة كما لن يكون الطالب مجبرا على الإجابة عن أي سؤال لا يرغب في الإجابة عليه كما يكون للطالب كامل الحرية في الانسحاب من الاستبيان وقت ما يشاء.

ما هي فوائد المشاركة في هذه الدراسة؟

قد لا يستفيد المشاركون بشكل مباشر من هذا البحث ومع ذلك فستقدم النتائج التي يتوصل إليها هذا البحث معلومات مهمة عن أثر التباعد الاجتماعي والعزل على رفاه الطلاب كما ستقدم هذه الدراسة مؤشرا للدعم الإضافي الذي سيحتاجه الطالب لدى عودته إلى المدرسة بمجرد رفع القيود المفروضة على ذلك،

وسيساعد ذلك صناع السياسات /المسؤولين السياسيين على صياغة البرامج التي تكفل تعزيز رفاه الطالب وضمان توفير بيئات تعلم مدرسية إيجابية للطلاب.

ماهي مخاطر المشاركة؟

هناك مخاطرة تتمثل في إمكانية انزعاج الطالب نتيجة لسؤال يؤدي لاسترجاع ذكرى حادث سابق ولذلك فسيتم توفير أرقام هاتفية وروابط إلكترونية لإتاحة الحصول على المعاونة والدعم اللازمين في نهاية الاستبيان الإلكتروني.

ماذا عن السرية؟

لن تحمل الاستبيانات أي أسماء وستكون مجهلة بالكامل ولن يطلع أي شخص بالمدرسة على الإجابات الواردة بالاستبيان ولدى نشر نتائج الاستبيان فسيتم تقديم المعلومات بشكل لا يمكن معه التعرف على هوية طفلك أو المدرسة.

ماذا لو كانت لدى أي شكاوى متعلقة بالدراسة؟

تمت مراجعة واعتماد هذه الدراسة من قبل لجنة أخلاقيات الأبحاث الاجتماعية والسلوكية بجامعة فلندرز وفي حالة وجود أي مخاوف أو شكاوى متعلقة بالدراسة فيمكنك الاتصال بأمين سر اللجنة المذكورة على الهاتف رقم 3116 8201 أو على الفاكس رقم 2035 8201 أو عن طريق البريد الإلكتروني التالي:human.researchethics@flinders.edu.au

علما بأنه سيتم التحقيق في أي شكوى بأسرع ما يمكن وسيتم إبلاغكم بالنتيجة كما ستقدم إليكم نسخة من هذه الاستمارة للاحتفاظ بها لديكم

ماذا يتعين علي أن أفعل الآن؟

في حالة موافقتك وموافقة ابنك/ابنتك على المشاركة في هذه الدراسة فيرجى تقديم/رفع صحيفة بيانات المشارك واستمارة الموافقة على الموقع الإلكتروني للدراسة (www.research-all.org) وعندئذ سيسمح لطفلك ببدء استيفاء الاستبيان على الإنترنت (يرجى ملاحظة أن الاستبيان واستمارة الموافقة غير مرتبطين)

الموقع الإلكتروني الخاص باستمارة الموافقة: https://research-all.org/Parent---Carer-Consent-Form.php

الموقع الالكتروني الخاص بالاستبيان:
https://qualtrics.flinders.edu.au/jfe/form/SV_9zS0ZHEwkMHjNgF

في حالة وجود المزيد من الاستفسارات لديكم أو كنتم ترغبون في الحصول على المزيد من المعلومات حول هذه الدراسة أو الإدلاء بأي تعليقات أثناء المشروع البحثي فرجاء لا تترددوا في التواصل معي على البريد الإلكتروني التالي: grace.skrzypiec@flinders.edu.au

أو على الرقم الهاتفي التالي:8201 5878

شكرا جزيلا على ما اقتطعتموه من وقتكم الثمين لقراءة هذه الوثيقة ولدراسة إمكانية سماحكم لطفلكم بالمشاركة في الدراسة من عدمه

مع خالص الاحترام

	
شذا أحمد الحارثي طالبة بالبرنامج المؤهل لدرجة الدكتوراه في الفلسفة كلية التربية وعلم النفس والخدمة الاجتماعية جامعة فلندرز	**د.جريس سكرزيبيتش(مشرفة)** بكالوريوس العلوم الشرفي-دبلوم عالي في التربية-ماجستير في التربية-دكتوراه في الفلسفة كلية التربية وعلم النفس والخدمة الاجتماعية جامعة فلندرز

Letter D: Parent and Child Consent Form (English & Arabic)

Online Consent Form

Impact of COVID-19 lockdown

I (name of parent/carer)

being over 18 years of age,

(check box as required)

- consent
- do not consent

to my child (enter name of child)

participating in the study as requested.I have read the information provided. 1. Details of procedures and any risks have been explained to my satisfaction. 2. I am aware that I should retain a copy of the Information Statement and Consent Form for future reference. 3. I understand that: ▪ My child may not directly benefit from taking part in this research. ▪ My child is free to withdraw from the project at any time and is free to decline to answer particular questions. ▪ While the information gained in this study will be published as explained, my child will not be identified, and individual information will be anonymous. ▪ Whether my child participates or not, or withdraws after participating, will have no effect on any treatment or service that is being provided to her/him. ▪ Whether my child participates or not, or withdraws after participating, will have no effect on her/his progress in her/his course of study, or results gained.

- By consenting, you agree to our Privacy Policy whereby your child will complete the questionnaire in private on their own.

I'm not a robot reCAPTCHA Privacy - Terms

Submit

استمارة موافقة

أثر الحجر المنزلي المتعلق بفيروس كورونا المستجد

أنا (أدخل اسم الأب/ولي الأمر)

البالغ سن الرشد (أكثر من 18 سنة)
(أشر على الخانة المطلوبة)

☐ أوافق

☐ لا أوافق

على اشتراك ابني/ابنتي (أدخل اسم الطفل)

في الدراسة المذكورة وذلك بعد اطلاعي على المعلومات المقدمة في هذ الصدد حيث:

١- تلقيت شرحا تفصيليا لكافة الإجراءات والمخاطر المحتملة
٢- وأدرك أنه يتعين علي الاحتفاظ بنسخة من صحيفة المعلومات واستمارة الموافقة للرجوع إليها مستقبلا
٣- كما أدرك ما يلي:
* أن طفلي قد لا يستفيد بشكل مباشر من المشاركة في هذا البحث
* أن لطفلي مطلق الحرية في الانسحاب من المشروع البحثي في أي وقت شاء كما أن له مطلق الحرية في رفض الإجابة عن أسئلة بعينها
*أن هوية طفلي ستظل سرية لدى نشر المعلومات التي تم جمعها من خلال هذه الدراسة كما ستظل كافة المعلومات الفردية مجهلة بشكل كامل
* أنه سواء شارك إبني /إبنتي في الدراسة أم لم يشارك أو سواء استكمل المشاركة أم انسحب بعد المشاركة فإن ذلك لن يؤثر على أي خدمة أو علاج مقدم إليه/إليها
* أنه سواء شارك إبني /إبنتي في الدراسة أم لم يشارك أو سواء استكمل المشاركة أم انسحب بعد المشاركة فإن ذلك لن يؤثر على تقدمه/تقدمها تقدمه/تقدمها الدراسي أو مساره/مسارها التعليمي أو على النتائج التي تم التوصل إليها

☐ توقيعك بالموافقة يعني موافقتك على سياسة السرية الخاصة بنا والتي يتعين على الطفل وفقا لها استيفاء الاستبيان بنفسه/بنفسها وفي سرية تامة

أرسل

Letter E: Mecca and Taif Recruitment Letter for Interview (English & Arabic)

College of Education, Psychology & Social Work
GPO Box 2100
Adelaide SA 5001
Tel: +61 08 8201 5878
Fax: +61 08 8201 3184
https://www.flinders.edu.au/study/education
CRICOS Provider No. 00114A

Dr Grace Skrzypiec
grace.skrzypiec@flinders.edu.au
http://www.flinders.edu.au/people/grace.skrzypiec

15 October 2021

To the administration of the education of the Mecca region,

Young people's views of life and schooling during COVID-19 lockdown in Saudi Arabia.

This letter is to introduce Mrs. Shatha Alharthi who is a Ph.D. candidate student in the College of Education, Psychology & Social Work at Flinders University in Australia. She will produce her student card, which carries a photograph, as proof of identity. Shatha is undertaking research leading to the production of a thesis on the subject of " young people's views of life and schooling during the COVID-19 lockdown in Saudi Arabia", aims to explore students' perceptions of how the pandemic and remote learning have affected their social interaction, wellbeing, and perceived academic performance during the lockdown. The aim is to inform school communities about the pastoral care needs of students once they return to school following their isolation. We seek your permission to conduct this research at your schools. As a part of the research, Shatha would like to be able to:

Conduct interviews with middle school students (aged 11-16 years). The purpose of interviews is to seek information concerning students' views regarding their social interactions and wellbeing during the lockdown, and how in turn those elements and perceived academic achievement are linked, and general questions about their experiences while in lockdown. I propose to conduct 12 individual interviews. Participants will be asked to set up a time most convenient for them to conduct one to one interview. I anticipate that the interview will last no more than 30 minutes.

It is important to remember that no participant will be under any obligation to take part in this research. All of the information provided will be kept confidential. No individual will be identified in the research report.

What does it involve?

- **Minimal involvement by school staff.**
- With your approval, I will:
  - Send you information about the study
  - Answer any questions you may have about the research

- Provide you with findings at the end of the project and also provide you with an independent report of your school's results
- Provide pastoral care resources that will enhance student wellbeing following the lock-down.
- Staff and schools will not be identified in the research.

Upon receipt of your approval, Shatha will ask Planning and Development Department from the administration of the education of the Mecca region to email, various school principals. Principals that consent to participate in the study will then be sent recruitment letters to forward to the parents along with information sheets and consent forms. If participants have agreed to join this study, the principal will contact Shatha to schedule and set up a time to interview with children.

Any inquiries you may have concerning this research should be directed to me at the address given above or by telephone on 8201 5878 or e-mail grace.skrzypiec@flinders.edu.au

Do you approve of this study at your school?

If so, you will need to sign an approval letter which Shatha will provide and forward to the Flinders University Human Research Ethics Committee.

I hope that you will give this request due consideration and I assure you that Shatha is willing to work with you in a manner that suits the school and which will cause minimal disruption to the school community.

Yours sincerely

Mrs Shatha Ahmad Alharthi

PhD candidate
College of Education, Psychology and Social Work
Flinders University

Dr Grace Skrzypiec

BSc(Hons), Grad Dip Ed, MEd, PhD

Director Student Wellbeing and Prevention of Violence Research Centre (SWAPv)

Flinders University

جامعة فلندرز
مدرسة التربية
كلية التربية وعلم النفس والخدمة الاجتماعية
ص.ب.2100
أدلايد SA 5001
هاتف:5878 8201 08 61+
فاكس 3184 8201 08 61+
الموقع الإلكتروني:
https://www.flinders.edu.au/study/education
رقم مقدم الخدمة التعليمية للطلاب الأجانب:
00114A

15 October 2021

" آراء الشباب حول الحياة والتعليم أثناء إغلاق COVID-19 في المملكة العربية السعودية"

إلى إدارة التعليم بمنطقة مكه المكرمه

أكتب إليكم لطلب مساعدتكم فيما يتعلق بالدراسة التي تحمل عنوان " آراء الشباب حول الحياة والتعليم أثناء إغلاق COVID-19 في المملكة العربية السعودية " خلال الحجر المنزلي نتيجة تفشي وباء كورونا المستجد (كوفيد-19) تسعى هذه الدراسة ، التي تجريها الباحثة شذى أحمد الحارثي كجزء من بحث الدكتوراه الخاص بها ، إلى استكشاف تصورات الطلاب حول كيفية تأثير الوباء والتعلم عن بعد على تفاعلهم الاجتماعي ورفاهيتهم وأدائهم الأكاديمي الملحوظ أثناء الإغلاق. وتهدف الدراسة إلى إطلاع المجتمعات المدرسية على احتياجات الطلاب من حيث الرعاية /الدينية لدى عودتهم إلى مدارسهم بعد انتهاء فترة عزلهم.وعليه فنحن نطلب منكم السماح بإجراء هذا البحث في مدرستكم.

.

كجزء من البحث ،ارغب بعمل ما يلي:

إجراء مقابلات مع طلاب المدارس المتوسطة (والتي تتراوح أعمارهم من ١١-١٦ سنة). الغرض من المقابلات هو البحث عن معلومات تتعلق بآراء الطلاب فيما يتعلق بتفاعلاتهم الاجتماعية ، والرفاهية وكيف يتم ربط هذه العناصر بالتقييم الأكاديمي المتصور بالإضافة الى أسئلة عامه حول تجاربهم أثناء الحجر المنزلي. أقترح إجراء تقريبا 12 مقابلة فردية. سيُطلب من المشاركين تحديد الوقت الأكثر ملاءمة لهم لإجراء المقابلة عبر الهاتف. أتوقع ألا تستغرق المقابلة أكثر من ٣٠ دقيقة. كما يسعدني ان أؤكد لكم انه لن يتم تحديد المشاركين والمدرسة في أي تقارير لاحقة. كما انه لا يتعين على الطلاب الإجابة على أي سؤال لا يرغبون فيه ولهم الحرية في الانسحاب في أي وقت.

على ماذا ينطوي البحث.؟

*أدنى مشاركة ممكنة من قبل العاملين بالمدرسة

وبعد الحصول على موافقتكم سأقوم بما يلي:

- إرسال معلومات عن الدراسة
- الإجابة عن أي أسئلة قد تكون لديكم حول البحث
- تزويدكم بالنتائج التي يتم التوصل إليها في نهاية المشروع البحثي إلى جانب تزويدكم بتقرير مستقل عن نتائج الدراسة المتعلقة بمدرستكم
- توفير الموارد المتعلقة بالرعاية الرعوية/الدينية والتي من شأنها تعزيز رفاهة الطلاب بعد الحجر

ينبغي ارسال أي استفسارات قد تكون لديك بخصوص هذا البحث إلى علي هذا البريد
Alha0349@flinders.edu.au
او مشرفتي بجامعه فلندرز على العنوان المذكور أعلاه أو عبر الهاتف على الرقم 8278 5878 أو البريد الإلكتروني
grace.skrzypiec@flinders.edu.au

هل توافقون على اجراء هذه الدراسة في مدارسكم؟

إذا كان الأمر كذلك، فستحتاج إلى التوقيع على خطاب موافقة سنقدمه شذى وتحيله إلى لجنة الأخلاقيات بجامعة فلندرز.

آمل أن تولي هذا الطلب الاعتبار الواجب وأؤكد لك أن شذى على استعداد للعمل معك بطريقة تناسب المدرسة والتي سوف تسبب الحد الأدنى من الاضطراب لمجتمع المدرسة.
تفضلوا بقبول فائق الاحترام

الدكتورة غريس سكرزيبيك (مشرفه)

بكالوريوس العلوم الشرفي-دبلوم عالي في التربية-ماجستير في التربية-دكتوراه في الفلسفة

مدير مركز أبحاث رفاهة الطلاب ومكافحة العنف

كلية التربية وعلم النفس والخدمة الاجتماعية
جامعة فلندرز

Taif Recruitment Letter for Interview (English & Arabic)

Flinders UNIVERSITY

College of Education, Psychology & Social Work
GPO Box 2100
Adelaide SA 5001
Tel: +61 08 8201 5878
Fax: +61 08 8201 3184
https://www.flinders.edu.au/study/education
CRICOS Provider No. 00114A

Dr Grace Skrzypiec
grace.skrzypiec@flinders.edu.au
http://www.flinders.edu.au/people/grace.skrzypiec

15 October 2021

To the administration of the education of the Taif region,

Young people's views of life and schooling during COVID-19 lockdown in Saudi Arabia.

This letter is to introduce Mrs. Shatha Alharthi who is a Ph.D. candidate student in the College of Education, Psychology & Social Work at Flinders University in Australia. She will produce her student card, which carries a photograph, as proof of identity. Shatha is undertaking research leading to the production of a thesis on the subject of " young people's views of life and schooling during the COVID-19 lockdown in Saudi Arabia", aims to explore students' perceptions of how the pandemic and remote learning have affected their social interaction, wellbeing, and perceived academic performance during the lockdown. The aim is to inform school communities about the pastoral care needs of students once they return to school following their isolation. We seek your permission to conduct this research at your schools. As a part of the research, Shatha would like to be able to:

Conduct interviews with middle school students (aged 11-16 years). The purpose of interviews is to seek information concerning students' views regarding their social interactions and wellbeing during the lockdown, and how in turn those elements and perceived academic achievement are linked, and general questions about their experiences while in lockdown. I propose to conduct 12 individual interviews. Participants will be asked to set up a time most convenient for them to conduct one to one interview. I anticipate that the interview will last no more than 30 minutes.

It is important to remember that no participant will be under any obligation to take part in this research. All of the information provided will be kept confidential. No individual will be identified in the research report.

What does it involve?

- **Minimal involvement by school staff.**
- With your approval, I will:
    - Send you information about the study

- Answer any questions you may have about the research
- Provide you with findings at the end of the project and also provide you with an independent report of your school's results
- Provide pastoral care resources that will enhance student wellbeing following the lock-down.
- Staff and schools will not be identified in the research.

Upon receipt of your approval, Shatha will ask Planning and Development Department from the **administration of the education of the Taif region** to email, various school principals. Principals that consent to participate in the study will then be sent recruitment letters to forward to the parents along with information sheets and consent forms. If participants have agreed to join this study, the principal will contact Shatha to schedule and set up a time to interview with children.

Any inquiries you may have concerning this research should be directed to me at the address given above or by telephone on 8201 5878 or e-mail grace.skrzypiec@flinders.edu.au

Do you approve of this study at your school?

If so, you will need to sign an approval letter which Shatha will provide and forward to the Flinders University Human Research Ethics Committee.

I hope that you will give this request due consideration and I assure you that Shatha is willing to work with you in a manner that suits the school and which will cause minimal disruption to the school community.

Yours sincerely

Dr Grace Skrzypiec
BSc(Hons), Grad Dip Ed, MEd, PhD
Director Student Wellbeing and Prevention of Violence Research Centre (SWAPv)
College of Education, Psychology and Social Work
Flinders University

Mrs Shatha Ahmad Alharthi

PhD candidate
College of Education, Psychology and Social Work
Flinders University

جامعة فلندرز
مدرسة التربية
كلية التربية وعلم النفس والخدمة الاجتماعية
ص.ب.2100
أدلايد SA 5001
هاتف:5878 8201 08 61+
فاكس 3184 8201 08 61+
الموقع الإلكتروني:
https://www.flinders.edu.au/study/education
رقم مقدم الخدمة التعليمية للطلاب الأجانب:
00114A

15 October 2021

" آراء الشباب حول الحياة والتعليم أثناء إغلاق COVID-19 في المملكة العربية السعودية"

إلى إدارة التعليم بمنطقة الطائف

أكتب إليكم لطلب مساعدتكم فيما يتعلق بالدراسة التي تحمل عنوان " آراء الشباب حول الحياة والتعليم أثناء إغلاق COVID-19 في المملكة العربية السعودية " خلال الحجر المنزلي نتيجة تفشي وباء كورونا المستجد (كوفيد-19) تسعى هذه الدراسة ، التي تجريها الباحثة تمذى أحمد الحارثي كجزء من بحث الدكتوراه الخاص بها ، إلى استكشاف تصورات الطلاب حول كيفية تأثير الوباء والتعلم عن بعد على تفاعلهم الاجتماعي ورفاهيتهم وأدائهم الأكاديمي الملحوظ أثناء الإغلاق. وتهدف الدراسة إلى إطلاع المجتمعات المدرسية على احتياجات الطلاب من حيث الرعاية /الدينية لدى عودتهم إلى مدارسهم بعد انتهاء فترة عزلهم.وعليه فنحن نطلب منكم السماح بإجراء هذا البحث في مدرستكم.

.

كجزء من البحث ،ارغب بعمل ما يلي:

إجراء مقابلات مع طلاب المدارس المتوسطة (والتي تتراوح أعمارهم من ١١-١٦ سنة). الغرض من المقابلات هو البحث عن معلومات تتعلق بآراء الطلاب فيما يتعلق بتفاعلاتهم الاجتماعية ، والرفاهية ، والاكتئاب والقلق أثناء الحجر ، وكيف يتم ربط هذه العناصر بالتقييم الأكاديمي المتصور بالإضافة الى أسئلة عامه حول تجاربهم أثناء الحجر المنزلي. أقترح إجراء تقريبا 12 مقابلة فردية. سيُطلب من المشاركين تحديد الوقت الأكثر ملاءمة لهم لإجراء المقابلة عبر الهاتف. أتوقع ألا تستغرق المقابلة أكثر من ٣٠ دقيقة. كما يسعدني ان أؤكد لكم انه لن يتم تحديد المشاركين والمدرسة في أي تقارير لاحقة. كما انه لا يتعين على الطلاب الإجابة على أي سؤال لا يرغبون فيه ولهم الحرية في الانسحاب في أي وقت.

على ماذا ينطوي البحث؟

*أدنى مشاركة ممكنة من قبل العاملين بالمدرسة

وبعد الحصول على موافقتكم سأقوم بما يلي:

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- الإجابة عن أي أسئلة قد تكون لديكم حول البحث
- تزويدكم بالنتائج التي يتم التوصل إليها في نهاية المشروع البحثي إلى جانب تزويدكم بتقرير مستقل عن نتائج الدراسة المتعلقة بمدرستكم
- توفير الموارد المتعلقة بالرعاية الرعوية/الدينية والتي من شأنها تعزيز رفاهة الطلاب بعد الحجر

ينبغي ارسال أي استفسارات قد تكون لديك بخصوص هذا البحث إلى على هذا البريد
Alha0349@flinders.edu.au
او مشرفتي بجامعه فلندرز على العنوان المذكور أعلاه أو عبر الهاتف على الرقم 8278 5878 أو البريد الإلكتروني
grace.skrzypiec@flinders.edu.au

هل توافقون على اجراء هذه الدراسة في مدارسكم؟

إذا كان الأمر كذلك، فستحتاج إلى التوقيع على خطاب موافقة ستقدمه شذى وتحيله إلى لجنة الأخلاقيات بجامعة فلندرز.
آمل أن تولي هذا الطلب الاعتبار الواجب وأؤكد لك أن شذى على استعداد للعمل معك بطريقة تناسب المدرسة والتي سوف تسبب الحد الأدنى من الاضطراب لمجتمع المدرسة.
تفضلوا بقبول فائق الاحترام

الدكتورة غريس سكرزيبيك (مشرفه)

بكالوريوس العلوم الشرفي-دبلوم عالي في التربية-ماجستير في التربية-دكتوراه في الفلسفة

مدير مركز أبحاث رفاهة الطلاب ومكافحة العنف

كلية التربية وعلم النفس والخدمة الاجتماعية
جامعة فلندرز

Mecca Permission Letter for Interview (English & Arabic)

Kingdom of Saudi Arabia
Ministry of Education
General Directorate of Education in Makkah
Al-Mukarramah
Department of Planning and Development

وزارة التعليم
Ministry of Education

Date11/10/2021

Electronic form to facilitate the task of the researcher
Circulated to all intermediate schools for boys/girls

Dear Sir/ Madam,the principle of intermediate school....., peace be upon you,

Referring to the letter of Flinders University in Australia, regarding the researcher's request: Shatha Ahmed Awad Al-Harthi, who requested the application of her scientific study instrument in order to complete her doctorate, according to the information below:

Title of the study	Young people's views of life and schooling during COVID-19 lock down in Saudi Arabia.		
Study sample	Girls and boys - Intermediate schools		
Study tool	Interviews		
Electronic link to the tool	https://medu.edu.sa/api/geturl/prospector/308 Under construction		barcode
Phone number	966554726220+	Email Address	Alha0349@flinders.edu.au

Therefore, we hope to facilitate the task of the researcher, publish the link, and encourage the students to fill it out. Thank you for your cooperation in the service of scientific .research

Kind Regards

Director General of Education,
Makkah Region

Dr Ahmad Mohamed Alzaidi

Internal issued 4300293952 Date11/10/2020

رقم المعاملة: ٤٣٠٠٢٩٣٩٥٢ تاريخ الإحالة: ٤-٣-١٤٤٣

المملكة العربية السعودية
وزارة التعليم
(٢٨٠)
الإدارة العامة للتعليم بمنطقة مكة المكرمة

وزارة التعليم
Ministry of Education

الرقم:
التاريخ:
المرفقات:

إدارة التخطيط والتطوير

((نموذج الكتروني للبحث والدراسات في العالم الرقمي))

تعميم لجميع مدارس المرحلة المتوسطة الحكومية والأهلية (بنين/ بنات)

المكرم(ة) مدير(ة) المتوسطة وفقه/ـا الله

السلام عليكم ورحمة الله وبركاته، وبعد:

إشارة إلى خطاب مدير مركز أبحاث رفاهة الطلاب ومكافحة العنف كلية التربية بجامعة فلندرز رقم (بدون) وتاريخ ١/ ٣/ ١٤٤٣ بشأن طلب الباحثة: شذى احمد عوض الحارثي، والتي ترغب في تطبيق أداة دراستها العلمية وذلك استكمالا للحصول على درجة الدكتوراه وفق البيانات أدناه:

عنوان الدراسة	" آراء الشباب حول الحياة والتعليم أثناء إغلاق COVID-19 في المملكة العربية السعودية"		
عينة الدراسة	طلاب وطالبات		
أداة الدراسة	مقابلة		
الرابط الالكتروني للأداة	https://medu.edu.sa/api/geturl/prospector/308	باركود	
بريد الكتروني	shathaalharthi@hotmail.com	الجوال	٩٦٦٥٥٤٧٢٦٢٢٠

عليه نأمل توجيه من يلزم من منسوبيكم بتسهيل مهمة الباحثة وإرسال بيانات الراغبين/ات في إجراء المقابلة على بريد الباحثة المذكور أعلاه، شاكرين تعاونكم في خدمة البحث العلمي.

وتقبلوا تحياتي وتقديري ،،،

مدير عام التعليم بمنطقة مكة المكرمة

د. أحمد بن محمد الزائدي

Taif Permission Letter for Interview (English & Arabic)

Kingdom of Saudi Arabia
Ministry of Education
General Directorate of Education in Taif
Department of Planning and
Information Research and Studies

وزارة التعليم
Ministry of Education

No. 40700

Date 18/10/2021

Subject: Facilitating the task of the researcher: Shatha Ahmed Awad Al-Harthi to apply a scientific study, Doctoral degree

Dear Sir/Madam,the principle of the intermediate school.....

Researcher name	Shatha Ahmad Awad Al-Harthi		
University	Flinders University	**Field of Specialization**	Education
School	College of Education, Psychology and Social Work		
Purpose of the study	doctorate degree		
Title of the study	Young people's views of life and schooling during COVID-19 lockdown in Saudi Arabia.		
Study instruments	Interviews	**Stusy sample**	Girls students boys students

Peace be upon you

Upon request of the researcher, whose name described above, on the application of her study instrument, and owing to the completion of the study procedure we hope that you will facilitate the task of the researcher to apply her study instrument on the aforementioned sample

Thank you very much for your kind cooperation

Director General of Education, Taif Governorate

Mr. Talal Moubark Allhaibe

Web site : researches.taifedu.gov.sa Taif / Phone: 0127321754 Fax: 0127329316

المملكة العربية السعودية
وزارة التعليم
الإدارة العامة للتعليم بمحافظة الطائف
إدارة التخطيط والمعلومات
البحوث والدراسات

وزارة التعليم
Ministry of Education

الرقم: 40700
التاريخ: 1443/03/11
المشفوعات:

الموضوع: تسهيل مهمة الباحث: شذى احمد عوض الحارثي
في تطبيق دراسة علمية ()

المكرم قائد مدرسة المتوسطه
المكرمة قائدة مدرسة المتوسطه

وفقكم الله

اسم الباحث	شذى احمد عوض الحارثي		
الجامعة	جامعه قلندرز		
الكلية	كليه التربيه	**التخصص**	التقييم التربوي
الغرض من الدراسة			
عنوان الدراسة	دراسه آراء الشباب حول الحياة والتعليم أثناء إغلاق COVID-19 في المملكة العربية السعودية		
أدوات الدراسة	مقابلة	**عينة الدراسة**	طلاب طالبات

السلام عليكم ورحمة الله وبركاته,,, وبعد:

فبناءً على ما تقدّم به الباحث الموضح اسمه أعلاه لتطبيق الأداة الخاصة بدراسته, ونظراً لاكتمال إجراءات الدراسة نأمل منكم تسهيل مهمته في التطبيق على العينة المشار إليها .

شاكرين لكم ومقدرين تعاونكم ,,,

المدير العام للتعليم بمحافظة الطائف

أ. طلال مبارك اللهيبي

Web site : researches.taifedu.gov.sa - الطائف - هاتف : 0127321754 - فاكس : 0127329316

Letter F: Principal Recruitment Letter for Interview (English & Arabic)

Letter to principals

Flinders UNIVERSITY

Dr Grace Skrzypiec
grace.skrzypiec@flinders.edu.au
http://www.flinders.edu.au/people/grace.skrzypiec

School of Education
College of Education, Psychology & Social Work
GPO Box 2100
Adelaide SA 5001
Tel: +61 08 8201 5878
Fax: +61 08 8201 3184
http://ehlt.flinders.edu.au/education/
CRICOS Provider No. 00114A

[enter school address]

[Enter date]

Dear [enter Principal's name]

Young people's views of life and schooling during COVID-19 lockdown in Saudi Arabia.

This letter is to introduce Mrs. Shatha Alharthi who is a Ph.D. candidate student in the College of Education, Psychology & Social Work at Flinders University in Australia. She will produce her student card, which carries a photograph, as proof of identity. Shatha is undertaking research leading to the production of a thesis on the subject of " young people's views of life and schooling during the COVID-19 lockdown in Saudi Arabia", aims to explore students' perceptions of how the pandemic and remote learning have affected their social interaction, wellbeing, and perceived academic performance during the lockdown. The aim is to inform school communities about the pastoral care needs of students once they return to school following their isolation. We seek your permission to conduct this research at your school. As a part of the research, Shatha would like to be able to:

Conduct interviews with middle school students (aged 11-16 years). The purpose of interviews is to seek information concerning students' views regarding their social interactions and wellbeing during the lockdown, and how in turn those elements and perceived academic achievement are linked, and general questions about their experiences while in lockdown. I propose to conduct 12 individual interviews. Participants will be asked to set up a time most convenient for them to conduct one to one interview. I anticipate that the interview will last no more than 30 minutes.

Shatha would be most grateful if you would volunteer to assist in this project by granting an interview that covers certain aspects of this topic.

Be assured that any information provided will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report, or other publications. Also, no participant will be under any obligation to take part in this research

Shatha has been granted the assistance and the permission of the Ministry of Education in ….city for the conduct of this. Shatha also seeks your assistance and permission as principal of this school for Shatha to be able to hold interviews with the students.

What does it involve?

- **Minimal involvement by school staff.** With your approval, I will:
  - Send you information about the study

- Answer any questions you may have about the research
- Provide you with findings at the end of the project and also provide you with an independent report of your school's results
- Provide pastoral care resources that will enhance student wellbeing following the lock-down.

This study has the approval of the Flinders University Human Research Ethics Committee (see contact details below). Staff and schools will not be identified in the research.

Any enquiries you may have concerning this research should be directed to me at the address given above or by telephone on 8201 5878 or e-mail grace.skrzypiec@flinders.edu.au

Do you approve this study at your school?

If so, you will need to sign an approval letter which Shatha will provide and forward to the Flinders University Human Research Ethics Committee.

I hope that you will give this request due consideration and I assure that Shatha is willing to work with you in a manner which suits the school and which will cause minimal disruption to the school community.

Yours sincerely

Dr Grace Skrzypiec
BSc(Hons), Grad Dip Ed, MEd, PhD
Director Student Wellbeing and Prevention of Violence Research Centre (SWAPv)
College of Education, Psychology and Social Work
Flinders University

Mrs Shatha Ahmad Alharthi

PhD candidate
College of Education, Psychology and Social Work
Flinders University

خطاب لمديري المدارس

جامعة فلندرز
كلية التربية وعلم النفس والخدمة الاجتماعية
ص.ب.2100
SA 5001 أدلير-
هاتف:5878 8201 08 61+
فاكس 3184 8201 08 61+
الموقع الإلكتروني:
http://ehlt.flinders.edu.au/education/
رقم مقدم الخدمة التعليمية للطلاب الأجانب:
00114A

د. جريس سكرزيبيتس
البريد الإلكتروني:
grace.skrzypiec@flinders.edu.au
الموقع الإلكتروني:
http://www.flinders.edu.au/people/grace.skrzypiec

[أدخل عنوان المدرسة]

[أدخل التاريخ]

السيد المحترم

[أدخل اسم مدير المدرسة]

أكتب إليكم لطلب مساعدتكم فيما يتعلق بالدراسة التي تحمل عنوان " آراء الشباب حول الحياة والتعليم أثناء إغلاق COVID-19 في المملكة العربية السعودية " خلال الحجر المنزلي نتيجة تفشي وباء كورونا المستجد (كوفيد-19) تسعى هذه الدراسة ، التي تجريها الباحثة تمدى أحمد الحارثي كجزء من بحث الدكتوراه الخاص بها ، إلى استكشاف تصورات الطلاب حول كيفية تأثير الوباء والتعلم عن بعد على تفاعلهم الاجتماعي ورفاهيتهم وأدائهم الأكاديمي الملحوظ أثناء الإغلاق. وتهدف الدراسة إلى إطلاع المجتمعات المدرسية على احتياجات الطلاب من حيث الرعاية /الدينية لدى عودتهم إلى مدارسهم بعد انتهاء فترة عزلهم.وعليه فنحن نطلب منكم السماح بإجراء هذا البحث في مدرستكم.

كجزء من البحث ،ارغب بعمل ما يلي:

إجراء مقابلات مع طلاب المدارس المتوسطة (والتي تتراوح أعمارهم من ١١-١٦ سنة). الغرض من المقابلات هو البحث عن معلومات تتعلق بآراء الطلاب فيما يتعلق بتفاعلاتهم الاجتماعية ، والرفاهية ، والاكتئاب والقلق أثناء الحجر ، وكيف يتم ربط هذه العناصر بالتقييم الأكاديمي المتصور بالإضافة الى أسئلة عامه حول تجاربهم أثناء الحجر المنزلي.

سيُطلب من المشاركين تحديد الوقت الأكثر ملاءمة لهم لإجراء مقابلة عبر الهاتف. أتوقع ألا تستغرق المقابلة أكثر من ٣٠ دقيقة. لقد حصلت على المساعدة والإذن من وزارة التربية والتعليم في مدينة.....لإجراء ذلك. أطلب أيضًا مساعدتك وإذنك بصفتك مديرًا لهذه المدرسة لإجراء هذا البحث. كما يسعدني ان أؤكد لكم انه لن يتم تحديد المشاركين والمدرسة في أي تقارير لاحقة. كما انه لا يتعين على الطلاب الإجابة على أي سؤال لا يرغبون فيه ولهم الحرية في الانسحاب في أي وقت.

على ماذا ينطوي البحث؟

*أدنى مشاركة ممكنة من قبل العاملين بالمدرسة

وبعد الحصول على موافقتكم سأقوم بما يلي:

- إرسال معلومات عن الدراسة
- الإجابة عن أي أسئلة قد تكون لديكم حول البحث
- تزويدكم بالنتائج التي يتم التوصل إليها في نهاية المشروع البحثي إلى جانب تزويدكم بتقرير مستقل عن نتائج الدراسة المتعلقة بمدرستكم
- توفير الموارد المتعلقة بالرعاية الرعوية/الدينية والتي من شأنها تعزيز رفاهة الطلاب بعد الحجر

وهذه الدراسة معتمدة من قبل لجنة أخلاقيات البحث التابعة لجامعة فلندرز (يرجاء الاطلاع على بيانات الاتصال المفصلة أدناه) ولن يتم الكشف عن هوية المدارس والعاملين المشاركين في البحث كما ستكون الاستبيانات مجهلة بشكل كامل.

يراعى توجيه أي استفسارات متعلقة بهذا البحث إلى شخصيا على العنوان المبين بعاليه أو هاتفيا على رقم 8201 5878 أو عن طريق البريد الإلكتروني التالي:grace.skrzypiec@flinders.edu.au

هل توافق على إجراء هذه الدراسة في مدرستك؟

في حالة موافقتكم سيتعين عليكم توقيع خطاب الموافقة التي ستقدمه الباحثة/ شذا إليكم ومن ثم إعادة توجيهه إلى لجنة أخلاقيات البحث التابعة لجامعة فلندرز.

آمل أن يتلقى طلبنا ما يستحق من كريم اهتمامكم ونؤكد لسيادتكم أن الباحثة/شذا على كامل الاستعداد للتعاون معكم بالشكل الذي ترونه مناسبا لمدرستكم وبما يضمن القدر الأدنى من التعطيل لأنشطة المجتمع المدرسي،

وختاما تقبلوا خالص احترامي،،

د.جريس سكرزيبيتش(مشرفة)

بكالوريوس العلوم الشرفي-دبلوم عالي في التربية-ماجستير في التربية-دكتوراه في الفلسفة

مدير مركز أبحاث رفاهة الطلاب ومكافحة العنف

كلية التربية وعلم النفس والخدمة الاجتماعية

جامعة فلندرز

تمت الموافقة على هذا البحث من قبل لجنة أخلاقيات الأبحاث الاجتماعية والسلوكية #7077

للمزيد من المعلومات فيما يتعلق بالموافقة الأخلاقية على هذا المشروع البحثي يمكنكم الواصل هاتفيا مع أمين سر اللجنة على رقم 3116 8201 أو عن طريق الفاكس رقم 2035 8201 أو عن طريق البريد الإلكتروني التالي: human.researchethics@flinders.edu.au.

Principal Consent Form for Interview (English & Arabic)

Professor Amanda Kearney
Chair Human Research Ethics Committee
Flinders University

Insert date

Dear .....

Re: Research Administration - Ethics (Project Number 7077).

I have been briefed about the study on the subject of "Young people's views of life and schooling during COVID-19 lockdown in Saudi Arabia.

" being run by Shatha Ahmad Alharthi in Saudi Arabia.

I understand that the research has been approved by the Human Research Ethics Committee at Flinders University. In compliance with the Ethics Committee requirement, I write to confirm that I approve of the study being undertaken by Shatha Ahmad Alharthi in .... INSERT name of the region or town/city

In consenting to the study, I agree to provide support by notifying parents about the research and allowing students (aged 11-16 years) to volunteer for participation to conduct interviews.

Shatha has indicated that participants and the school will not be identified in any subsequent reports and that she will provide a report of her findings in December, 2023.

I have no objection in Shatha undertaking the interviews following the protocol she has indicated.

Yours truly,

INSERT Name and details of person

الأستاذ د. أماندا كيردي
رئيس لجنة أخلاقيات الأبحاث البشرية
جامعة فلندرز
أدخل التاريخ
السيده الأستاذه .....
الموضوع:إداره الأبحاث- الأخلاقيات(المشروع رقم 7077)
تلقيت إيجازا بشأن الدراسة التي تحمل عنوان"آراء الطلاب والطالبات حول الحياه والدراسة خلال الاغلاق نتيجة تفشي فايروس كوفيد-١٩ في المملكة العربية السعودية" والتي تجريها الباحثة/ شذا أحمد الحارثي بالمملكة العربية السعودية، وحسبما فهمت فقد تم اعتماد البحث من قبل لجنة أخلاقيات الأبحاث البشرية بجامعة فلندرز.
ولذلك فامتثالا مني لمتطلبات لجنة أخلاقيات الأبحاث بجامعة فلندرز فقد بادرت بالكتابة إليكم لأؤكد على موافقتي على الدراسة التي تقوم بها شذا أحمد الحارثي في...(**أدخل اسم المنطقة أو المدينة/البلدة**)،
وبناء على موافقتي على الدراسة المذكوره فقد وافقت كذلك على تقديم الدعم من خلال إخطار الأباء/أولياء الأمور بخصوص البحث والسماح للطلاب (التي تتراوح أعمارهم من 11-16 عاما بالتطوع للمشاركة بإجراء مقابلة.
وقد أشارت الباحثة / شذا بأنه لن يتم تحديد المشاركين والمدرسة التي يلتحقون بها في أي تقارير لاحقة ستقدم تقريرا بما تتوصل إليه من نتائج في ديسمبر **2023**
وعليه فلا مانع لدي في إجراء الباحثة شذا لهذه المقابلات طبقا للبروتكول المشار إليه
مع خالص الاحترام
أدخل اسم وبيانات الشخص

Letter G: Parent and Child Recruitment Letter for Interview (English &Arabic)

Flinders UNIVERSITY

PARTICIPANT INFORMATION STATEMENT AND CONSENT FORM
FOR PARENTS/GUARDIANS AND CHILDREN

Young people's views of life and schooling during COVID-19 lockdown in Saudi Arabia.

Researcher: Shatha Ahmad Alharthi, College of Education, Psychology and Education.

This study is being conducted in Saudi Arabia by Mrs Shatha Ahmad Alharthi, as part of her PhD research dissertation under the supervision of Dr Grace Skrzypiec, College of Education, Psychology and Social Work, Flinders University, South Australia. Data collected by Shatha will be used by her to understand the impact of COVID-19 lockdown on students in Saudi Arabia.

What is the study about?
This study seeks to explore students' perceptions of how the pandemic and remote learning have affected their social interaction, wellbeing, and perceived academic performance during the lockdown while learning from home. The aim is to inform school communities about the pastoral care needs of students once they return to school following their isolation.

If you consent to your child's participation, what will she/he be asked to do?
Middle school students (aged 11-16 years) will be invited for an interview. The purpose of the interview is to seek information concerning students' views regarding their social interactions and wellbeing during the lockdown, and how in turn those elements and perceived academic achievement are linked, and general questions about their experiences while in lockdown. The interview will take about 30 minutes and can be at school or another place that is convenient for him/her. Participants and the school will not be identified in any subsequent reports. Students do not have to answer any question they don't wish to and they are free to withdraw at any time. You are being asked to take part because you are affiliated with the school districts in which we have conducted the first part of this study.

What are the benefits of participating in this study?
Participants may not directly benefit from this research. However, the findings will provide information about the impact of social distancing and isolation on student wellbeing. This study will provide an indication of the additional support students will need once they return to school following a lift of restrictions. This will assist policymakers in formulating programs to enhance student wellbeing and ensure positive school learning environments for students.

What are the risks of participating?
There is a risk that a student may become upset if a question triggers a memory of a past incident. Therefore, if a student experiences feelings of distress as a result of participation in this study, they will be asked to please let the researcher know immediately. The researcher will then take appropriate steps to advise the student where to seek support and/or

counselling. In addition, at the commencement of the interviews, the researcher will advise the student that if anything is revealed that causes the researcher to be concerned about the student's welfare, they should be aware that the researcher may report this to the authorities for support. Phone numbers and links to online help available for assistance and support will be provided at the end of the interview.
Participants can contact the following service for support:
1/ Child Helpline in Saudi Arabia116111
2/The Psychological Counselling Centre of the National Center of Mental Health Promotion. The call center receives all psychological counselling of all kinds through the number 920033360.
Website:
http://ncmh.org.sa/index.php/pages/view/105/14/14
Phone number:
920033360

What about confidentiality?

Any information that will be shared as part of this study will be kept confidential and will be shared only if you agree, except as required by law. The interview will be digitally recorded if you agree. The record will only be viewed by researchers in the process of analysis and will be subsequently destroyed. If you give us your permission by signing this form, we plan to publish the results of the study in academic journals. In any publication, this information will not identify you personally or reveal any details about you.

How will I receive feedback?

Participating schools will be sent a report of overall findings. Participants will be informed of the results through their school, or they may request information directly from the research, Shatha Ahmad Alharthi, via the email address below (note: no schools or participants will be identified in this report).

What if I have complaints about the study?

This study has been reviewed and approved by the Flinders University Human Research Ethics Committee. If you have any concerns or complaints about the study, you can contact the Secretary of the Committee on 8201 3116, or by fax on 8201 2035 or by email human.researchethics@flinders.edu.au. Any complaint you make will be investigated promptly and you will be told of the outcome. You will be given a copy of this form to keep.

What do I do now?

If you and your child agree to taking part in the study, please submit the electronic consent via link (……). If you selected 'yes' you will then be allowed to set up a time to conduct the interview. If you have any further questions or would like further information about this study or have any comments during the project, please feel free to contact Shatha or her supervisor by e-mail: alha0349@flinders.edu.au or grace.skrzypiec@flinders.edu.au or phone: +618201 5878.

Thank you very much for taking the time to read this invitation and considering whether you will allow your child to participate.

Yours sincerely,

Mrs Shatha Ahmad Alharthi

PhD candidate
College of Education, Psychology and Social Work
Flinders University

Dr Grace Skrzypiec

BSc(Hons), Grad Dip Ed, MEd, PhD

Director Student Wellbeing and Prevention of Violence Research Centre (SWAPv)

Flinders University

بيان معلومات المشاركين و نموذج الموافقة
للآباء/ والأطفال

آراء الطلاب والطالبات حول الحياة والدراسة خلال الاغلاق نتيجه تفشي فايروس كوفيد-١٩ في المملكة العربية السعودية.

الباحثة: ندى أحمد الحارثي، كلية التربية وعلم النفس والتعليم.

تجري ندى احمد الحارثي هذه الدراسة في المملكة العربية السعودية ، كجزء من أطروحة بحث الدكتوراه تحت إشراف الدكتورة غريس سكرزيبيك ، كلية التربية وعلم النفس والعمل الاجتماعي ، جامعة فلندرز ، جنوب أستراليا. وستستخدم البيانات التي جمعتها ندى من قبلها لفهم تأثير الاغلاق نتيجه تفشي فايروس كوفيد-١٩ على الطلاب في المملكة العربية السعودية.

ما هي الدراسة؟

تسعى هذه الدراسة إلى استكشاف تصورات الطلاب حول كيفية تأثير الوباء والتعلم عن بعد على تفاعلهم الاجتماعي ورفاههم وأدائهم الأكاديمي المتصور أثناء التعلم من المنزل خلال الاغلاق. والهدف من ذلك هو إطلاع المجتمعات المدرسية على احتياجات الرعاية للطلاب بمجرد عودتهم إلى المدرسة بعد عزلتهم.

إذا وافقت على مشاركة طفلك، فماذا سيطلب منه؟

سيتم دعوة الطلاب في المدارس المتوسطة (الذين تتراوح أعمارهم بين 11-16 سنة) لإجراء مقابلة. الغرض من المقابلة هو البحث عن معلومات تتعلق بآراء الطلاب فيما يتعلق بتفاعلاتهم الاجتماعية ورفاههم أثناء الإغلاق ، وكيف ترتبط هذه العناصر وإنجازهم الأكاديمي المتصور ، واسئلة العامة حول تجاربهم أثناء الإغلاق. تستغرق المقابلة حوالي 30 دقيقة ويمكن أن تكون في مكان مناسب له. ولن يتم تحديد المشاركين والمدرسة التي يلتحقون بها في أي تقارير لاحقة. لا يتعين على الطلاب الإجابة على أي سؤال لا يرغبون فيه وهم أحرار في الانسحاب في أي وقت. يطلب منك المشاركة لأنك منتسب إلى المناطق المدرسية التي أجرينا فيها الجزء الأول من هذه الدراسة.

ما هي فوائد المشاركة في هذه الدراسة؟

قد لا يستفيد المشاركون بشكل مباشر من هذا البحث. ومع ذلك، ستوفر النتائج معلومات حول تأثير الابتعاد الاجتماعي والعزلة على رفاهية الطلاب. وستقدم هذه الدراسة مؤشرا على الدعم الإضافي الذي سيحتاجه الطلاب بمجرد عودتهم إلى المدرسة بعد رفع القيود. وسيساعد ذلك صناع السياسات في صياغة برامج لتعزيز رفاه الطلاب وضمان بيئات تعليمية مدرسية إيجابية للطلاب.

ما هي مخاطر المشاركة؟

هناك خطر من أن يصبح الطالب منزعجا إذا أثار سؤال ما ذكرى حادث سابق. لذلك، إذا كان الطالب يعاني من مشاعر الضيق نتيجة للمشاركة في هذه الدراسة، سيطلب منهم إعلام الباحث على الفور. ثم يتخذ الباحث الخطوات المناسبة لتقديم المشورة للطالب حيث لطلب الدعم و / أو المشورة. بالإضافة إلى ذلك، عند بدء المقابلات، سيقوم الباحث بإبلاغ الطالب بأنه إذا تم الكشف عن أي شيء يسبب قلق الباحث على رفاهية الطالب، يجب أن يدركوا أن الباحث قد يبلغ السلطات بذلك للحصول على الدعم. وسيتم توفير أرقام الهواتف والروابط للمساعدة عبر الإنترنت المتاحة للمساعدة والدعم لكل مشارك.

إذا كنت تشعر بالقلق بأي شكل من الأشكال بعد المقابلة، يمكنك الاتصال بخدمة الدعم التالية:

1. خط مساعدة الأطفال في المملكة العربية السعودية 116111
2. مركز الاستشارة النفسية التابع للمركز الوطني لتعزيز الصحة النفسية.

الموقع الإلكتروني:

http://ncmh.org.sa/index.php/pages/view/105/14/14

رقم الهاتف:

920033360

بالإضافة إلى ذلك، قد يجد المشاركون في هذا البحث المقابلة متعبة وغير مريحة. لذلك، سيوفر الباحث بيئة آمنة للمشاركين لإجراء المقابلة عبر الإنترنت من خلال مطالبتهم بإعداد وقت مناسب للغاية لإجراء مقابلة عبر الإنترنت.

ماذا عن السرية؟

سيتم الحفاظ على سرية أي معلومات سيتم مشاركتها كجزء من هذه الدراسة ولن يتم مشاركتها إلا إذا وافقت، باستثناء ما يقتضيه القانون. سيتم تسجيل المقابلة رقميا إذا وافقت. ولن ينظر الباحثون إلى السجل إلا في عملية التحليل وسيتم اتلافه في وقت لاحق. إذا أعطيتنا إذنك بتوقيع هذا النموذج، فإننا نخطط لنشر نتائج الدراسة في المجلات الأكاديمية. في أي منشور، لن تحدد هذه المعلومات هويتك شخصيا أو تكشف عن أي تفاصيل عنك.

كيف سأتلقى تعليقات؟

سترسل إلى المدارس المشاركة تقرير عن النتائج الإجمالية. سيتم إبلاغ المشاركين بالنتائج من خلال مدرستهم، أو قد يطلبون معلومات مباشرة من الباحثة، شذى أحمد الحارثي، عبر عنوان البريد الإلكتروني أدناه. وعلاوة على ذلك، سينشر ملخص لنتائج البحث على الموقع الرسمي لوزارة التعليم، وسيكون متاحا لجميع أصحاب المصلحة.

ماذا لو كانت لدي شكاوى حول الدراسة؟

وقد تم استعراض هذه الدراسة والموافقة عليها من قبل لجنة أخلاقيات البحوث البشرية في جامعة فلندرز. إذا كان لديك أي مخاوف أو شكاوى حول الدراسة، يمكنك الاتصال بسكرتير اللجنة على الرقم 8201 3116، أو عن طريق الفاكس على الرقم 8201 2035 أو عن طريق البريد الإلكتروني human.researchethics@flinders.edu.au. سيتم التحقيق في أي شكوى تقدمها على الفور وسيتم إبلاغك بالنتيجة. سيتم منحك نسخة من هذا النموذج للاحتفاظ بها.

ماذا أفعل الآن؟

نموذج الموافقة مرفق بورقة المعلومات هذه. إذا وافقت أنت وطفلك على المشاركة في الدراسة، وسوف يطلب منك التوقيع على نموذج الموافقة وارساله عبر الايميل الإلكتروني للباحثه شذى: alha0349@flinders.edu.au. ثم ستتصل بك شذى لتنظيم مقابلة عبر الإنترنت معها سيتم تسجيلها صوتيا.
إذا كان لديك أي أسئلة أخرى أو ترغب في الحصول على مزيد من المعلومات حول هذه الدراسة أو لديك أي تعليقات خلال المشروع، فلا تتردد في الاتصال بشذى أو مشرفها عن طريق البريد الإلكتروني: alha0349@flinders.edu.au أو grace.skrzypiec@flinders.edu.au أو الهاتف: +61 8201 5878.

شكرا جزيلا على أخذ الوقت لقراءة هذه الدعوة والنظر فيما إذا كنت سنسمح لطفلك بالمشاركة.

لك بصدق،

السيدة شذى أحمد الهارثي

مرشح لنيل درجة الدكتوراه
كلية التربية وعلم النفس والعمل الاجتماعي
جامعة فلندرز

الدكتورة غريس سكرزبيك

بكالوريوس (مع مرتبة الشرف)، غراد ديب إد، دكتوراه، دكتوراه

مدير مركز بحوث رفاه الطلاب ومنع العنف (SWAPv)

جامعة فلندرز

Letter H: Parent and Child Consent Form for Interview (English & Arabic)

Online Consent Form

Impact of COVID-19 lockdown

I (name of parent/carer)

being over 18 years of age,

(check box as required)

- consent
- do not consent

to my child (enter name of child)

participating in the study as requested.I have read the information provided. 1. Details of procedures and any risks have been explained to my satisfaction. 2. I am aware that I should retain a copy of the Information Statement and Consent Form for future reference. 3. I understand that: ▪ My child may not directly benefit from taking part in this research. ▪ My child is free to withdraw from the project at any time and is free to decline to answer particular questions. ▪ While the information gained in this study will be published as explained, my child will not be identified, and individual information will be anonymous. ▪ Whether my child participates or not, or withdraws after participating, will have no effect on any treatment or service that is being provided to her/him. ▪ Whether my child participates or not, or withdraws after participating, will have no effect on her/his progress in her/his course of study, or results gained.

- By consenting, you agree to our Privacy Policy whereby your child will complete the questionnaire in private on their own.

I'm not a robot

reCAPTCHA
Privacy - Terms

Submit

استمارة موافقة

أثر الحجر المنزلي المتعلق بفيروس كورونا المستجد

أنا (أدخل اسم الأب/ولي الأمر)

البالغ سن الرشد (أكثر من 18 سنة)
(أشر على الخانة المطلوبة)

☐ أوافق

☐ لا أوافق

على اشتراك ابني/ابنتي (أدخل اسم الطفل)

في الدراسة المذكورة وذلك بعد اطلاعي على المعلومات المقدمة في هذ الصدد حيث:

١- تلقيت شرحا تفصيليا لكافة الإجراءات والمخاطر المحتملة
٢- وأدرك أنه يتعين علي الاحتفاظ بنسخة من صحيفة المعلومات واستمارة الموافقة للرجوع إليها مستقبلا
٣- كما أدرك ما يلي:
* أن طفلي قد لا يستفيد بشكل مباشر من المشاركة في هذا البحث
* أن لطفلي مطلق الحرية في الانسحاب من المشروع البحثي في أي وقت شاء كما أن له مطلق الحرية في رفض الإجابة عن أسئلة بعينها
*أن هوية طفلي ستظل سرية لدى نشر المعلومات التي تم جمعها من خلال هذه الدراسة كما ستظل كافة المعلومات الفردية مجهلة بشكل كامل
* أنه سواء شارك إبني /إبنتي في الدراسة أم لم يشارك أو سواء استكمل المشاركة أم انسحب بعد المشاركة فإن ذلك لن يؤثر على أي خدمة أو علاج مقدم إليه/إليها
* أنه سواء شارك إبني /إبنتي في الدراسة أم لم يشارك أو سواء استكمل المشاركة أم انسحب بعد المشاركة فإن ذلك لن يؤثر على تقدمه/تقدمها تقدمه/تقدمه الدراسي أو مساره/مسارها التعليمي أو على النتائج التي تم التوصل إليها

☐ توقيعك بالموافقة يعني موافقتك على سياسة السرية الخاصة بنا والتي يتعين على الطفل وفقا لها استيفاء الاستبيان بنفسه/بنفسها وفي سرية تامة

أرسل

Letter I: Reminder for Participation in the study of the impact of COVID-19 on students

Reminder: Participation in the study of the impact of COVID-19 lockdown on students' wellbeing

Dear [Principal's Name],

I hope this email finds you well. This is a gentle reminder regarding the study of the impact of COVID-19 lockdown on students' wellbeing, which your esteemed school has graciously agreed to participate in.

As per our previous correspondence, your school has been selected to take part in this significant research endeavor aimed at understanding the impact of COVID-19 lockdown on students in Saudi Arabia.

We deeply appreciate your commitment to advancing research in education and contributing to the body of knowledge in this field.

We kindly request your assistance in ensuring that the parents of students enrolled in your school have received and completed the consent form for their child's participation in the study. If there are any outstanding consent forms yet to be submitted, we kindly ask for your support in facilitating this process.

Additionally, we would like to express our gratitude for your ongoing cooperation and support throughout the duration of the study. Your participation is invaluable, and we are confident that your school's involvement will significantly contribute to the success of our research efforts.

Should you require any further information or assistance, please do not hesitate to contact us. Thank you once again for your cooperation and support.

Warm regards,

Mrs Shatha Ahmad Alharthi

PhD candidate

College of Education, Psychology and Social Work

Flinders University

Letter K: SBREC Approval Letters

MODIFICATION REQUEST

For projects previously approved by the SBREC

A Modification Request should be submitted for all items listed below:	IMPORTANT
1. proposed changes to the research protocol; 2. proposed changes to participant recruitment methods; 3. amendments to participant documentation and/or research tools' 4. change of project title; 5. extension of the ethics approval expiry date / extension of time; and 6. personnel changes (e.g., additions, removals, supervisor changes) Submit modification requests to human.researchethics@flinders.edu.au Typically, the Committee's response will be emailed to you in 1-2 weeks.	a) Proposed modifications should *not* proceed until formal notification of modification approval has been received. b) Annual reports - annual progress reports should be up to date *before* a modification request is submitted. c) Indigenous peoples – modifications that involve or impact on Indigenous peoples in Australia will also be reviewed by the Flinders University Office of Indigenous Strategy and Engagement (OISE), which will impact Committee response time. d) Contact Details – email SBREC if details change as Ethics *is not* linked to Student Two or Human Resources.

1. Project Information

Project No. 7077 | Ethics Approval **Expiry Date** 31 Dec 2021

Project Title: The impact of COVID-19 lockdown on student wellbeing and experiences of aggression

Principal Researcher: Dr Grace Skrzypiec | Email address: grace.skrzypiec@flinders.edu.au

Annual Reports up to date? | Next annual report due?

2. Extension of time

2A Extension of Time Requested (if applicable)

Current Ethics Approval Expiry Date | New Expiry Date requested

2B Justification

3. Change of Project Title

3A Change of Project Title (if applicable)

Old project title:

New project title:

3B Participant Document Revisions

Please note: if the project title is changed, copies of all documents to be distributed to potential participants will need to be revised to include the new title (e.g., email text, Letter of introduction, Information Sheet, Consent Form). Please submit copies of the revised documents for review.

Revised Participant Documents Attached?

7 March 2022

HUMAN RESEARCH ETHICS COMMITTEE

APPROVAL NOTICE

Dear Mrs Shatha Alharthi,

The below proposed project has been **approved** on the basis of the information contained in the application and its attachments.

Project No:	4466
Project Title:	Young people's views of life and schooling during COVID-19 lockdown in Saudi Arabia.
Primary Researcher:	Mrs Shatha Alharthi
Approval Date:	07/03/2022
Expiry Date:	01/01/2023
Conditions of Approval:	None

Please note: *Due to the current COVID-19 situation, researchers are strongly advised to develop a research design that aligns with the University's COVID-19 research protocol involving human studies. Where possible, avoid face-to-face testing and consider rescheduling face-to-face testing or undertaking alternative distance/online data or interview collection means. For further information, please go to https://staff.flinders.edu.au/coronavirus-information/research-updates.*

Please note: *For all research projects wishing to recruit Flinders University students as participants, approval needs to be sought from the Office to the Deputy Vice-Chancellor (Students). To seek approval, please provide a copy of the Ethics approval for the project and a copy of the project application to the Office of the Deputy Vice-Chancellor (Students) via dvcsoffice@dl.flinders.edu.au.*

RESPONSIBILITIES OF RESEARCHERS AND SUPERVISORS

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1. Participant Documentation

Please note that it is the responsibility of researchers and supervisors, in the case of student projects, to ensure that:

- all participant documents are checked for spelling, grammatical, numbering and formatting errors. The Committee does not accept any responsibility for the above mentioned errors.
- the Flinders University logo is included on all participant documentation (e.g., letters of Introduction, information Sheets, consent forms, debriefing information and questionnaires – with the exception of purchased research tools) and the current Flinders University letterhead is included in the header of all letters of introduction. The Flinders University international logo/letterhead should be used and documentation should contain international dialling codes for all telephone and fax numbers listed for all research to be conducted overseas.
- the HREC contact details, listed below, are included in the footer of all letters of introduction and information sheets.

  This research project has been approved by Flinders University's Human Research Ethics Committee (Project ID 4466). If you have any complaints or reservations about the ethical conduct of this study, you may contact Flinders University's Research Ethics & Compliance Office via telephone on 08 8201 2543 or by email human.researchethics@flinders.edu.au.

2. Annual Progress / Final Reports

In order to comply with the monitoring requirements of the *National Statement on Ethical Conduct in Human Research 2007 (updated 2018)* an annual progress report must be submitted each year on the anniversary of the approval date for the duration of the ethics approval using the HREC Annual/Final Report Form available online via the ResearchNow Ethics & Biosafety system.

Please note that no data collection can be undertaken after the ethics approval expiry date listed at the top of this notice. If data is collected after expiry, it will not be covered in terms of ethics. It is the responsibility of the researcher to ensure that annual progress reports

Appendix B: Online Survey (English & Arabic)

Impact of COVID-19 Lock-down

Consent **Parental/carer consent is required if you are less than 18 years of age.**

Q1 Do you have consent from your parent/carer to participate in this study?

(1) Yes ○

(2) No ○

THANK YOU for agreeing to participate in this survey!

As a young person under 18 years of age, you should only proceed if you have obtained parental consent. If you do not h

Instructions

Questions are about things that have happened **while in lock-down**.

Please think about them and **answer as honestly as you can**.

The first few questions ask you to respond **Yes or No** to questions.

- If you answer **Yes**, you will be asked **some other questions about the event**.
- If you answer **No**, you will be **directed to the next question**.

The questionnaire will take about **10 - 15 minutes** to complete. What you tell us will be of **great help** in understanding the lives of young people in lock-down.

AA The following questions are about being in **lock-down**. This is about being **away from school and being home** during the COVID-19 pandemic.

How many **days** have you been, or were you in lock-down?

.....

BB Where have you been, or were you in lock-down?

(1) At home with family ○

(2) At home alone ○

(3) In a hotel with family ○

(4) other (please indicate where in the space below) ○

Page 1 of 19

Q1 While in lock-down, **I was teased or laughed at** (select one)

(1) Yes ○

(2) No ○

Skip To: End of Block If While in lock-down, I was teased or laughed at (select one) = No

Q1a During the lock-down, **how often were you teased or laughed at**? (select one)

(1) Never ○

(2) Once or twice ○

(3) 4-6 times ○

(4) About once a month ○

(5) 2-3 times a month ○

(6) about once a week ○

(7) 2-3 times a week ○

(8) more than 3 times a week ○

Q1b Being teased or laughed at, how **harmful** was it to you? (select one)

(1) Not harmful at all ○

(2) Not very harmful ○

(3) Harmful ○

(4) Very harmful ○

(5) extremely harmful ○

Q1c Being teased or laughed at, what is **your relationship** with the person(s)? ***This person is ...***

(1) best friend(s) ☐

(2) classmate/peer ☐

(3) parents(s) ☐

(4) friends ☐

(5) brother(s)/sisters(s) ☐

(6) teacher ☐

(7) no relationship ☐

(8) other ☐

Q1d **Where** were you teased or laughed at? (select all that apply)

(1) at school ☐

(2) at home ☐

(3) to/from school ☐

(4) online ☐

Q2 While in lock-down, **I was picked-on** (select one)

(1) Yes ○

(2) No ○

Skip To: End of Block If While in lock-down, I was picked-on (select one) = No

Q2a During the lock-down, **how often were you picked on**? (select one)

(1) Never ○

(2) Once or twice ○

(3) 4-6 times ○

(4) About once a month ○

(5) 2-3 times a month ○

(6) about once a week ○

(7) 2-3 times a week ○

(8) more than 3 times a week ○

Q2b Being picked on, how **harmful** was it to you? (select one)

(1) Not harmful at all ○

(2) Not very harmful ○

(3) Harmful ○

(4) Very harmful ○

(5) extremely harmful ○

Q2c Being picked on, what is **your relationship** with the person(s)? ***This person is ...***

(1) best friend(s) ☐

(2) classmate/peer ☐

(3) parents(s) ☐

(4) friends ☐

(5) brother(s)/sisters(s) ☐

(6) teacher ☐

(7) no relationship ☐

(8) other ☐

Q2d **Where** were you picked on? (select all that apply)

(1) at school ☐

(2) at home ☐

(3) to/from school ☐

(4) online ☐

(5) elsewhere ☐

Q3 While in lock-down **I was called names** (select one)

(1) Yes ○

(2) No ○

Skip To: End of Block If While in lock-down I was called names. (select one) = No

Q3a During the lock-down, **how often were you called names**? (select one)

(1) Never ○

(2) Once or twice ○

(3) 4-6 times ○

(4) About once a month ○

(5) 2-3 times a month ○

(6) about once a week ○

(7) 2-3 times a week ○

(8) more than 3 times a week ○

Q3b Being called names, how **harmful** was it to you? (select one)

(1) Not harmful at all ○

(2) Not very harmful ○

(3) Harmful ○

(4) Very harmful ○

(5) extremely harmful ○

Q3c Being called names, what is **your relationship** with the person(s)? ***This person is ...***

(1) best friend(s) ☐

(2) classmate/peer ☐

(3) parents(s) ☐

(4) friends ☐

(5) brother(s)/sisters(s) ☐

(6) teacher ☐

(7) no relationship ☐

(8) other ☐

Q3d **Where** were you called names? (select all that apply)

(1) at school ☐

(2) at home ☐

(3) to/from school ☐

(4) online ☐

(5) elsewhere ☐

Q4 While in lock-down, **I was left out by another person(s)** (select one)

(1) Yes ○

(2) No ○

Skip To: End of Block If While in lock-down, I was left out by another person(s) (select one) = No

Q4a During the lock-down, **how often were you left out by another person**? (select one)

(1) Never ○

(2) Once or twice ○

(3) 4-6 times ○

(4) About once a month ○

(5) 2-3 times a month ○

(6) about once a week ○

(7) 2-3 times a week ○

(8) more than 3 times a week ○

Q4b Being left out, how **harmful** was it to you? (select one)

(1) Not harmful at all ○

(2) Not very harmful ○

(3) Harmful ○

(4) Very harmful ○

(5) extremely harmful ○

Q4c Being left out, what is **your relationship** with the person(s)? ***This person is ...***

(1) best friend(s) ☐

(2) classmate/peer ☐

(3) parents(s) ☐

(4) friends ☐

(5) brother(s)/sisters(s) ☐

(6) teacher ☐

(7) no relationship ☐

(8) other ☐

Q4d **Where** were you left out? (select all that apply)

(1) at school ☐

(2) at home ☐

(3) to/from school ☐

(4) online ☐

(5) elsewhere ☐

Q5 While in lock-down, **another person(s) spread rumours (lies) about me** (select one)

(1) Yes ○

(2) No ○

Skip To: End of Block If While in lock-down, another person(s) spread rumours (lies) about me (select one) = No

Q5a During the lock-down, **how often did someone spread rumours (lies) about you**? (select one)

(1) Never ○

(2) Once or twice ○

(3) 4-6 times ○

(4) About once a month ○

(5) 2-3 times a month ○

(6) about once a week ○

(7) 2-3 times a week ○

(8) more than 3 times a week ○

Q5b Having rumours (lies) spread, how **harmful** was it to you? (select one)

(1) Not harmful at all ○

(2) Not very harmful ○

(3) Harmful ○

(4) Very harmful ○

(5) extremely harmful ○

Q5c Having rumours (lies) spread, what is **your relationship** with the person(s)? ***This person is ...***

(1) best friend(s) ☐

(2) classmate/peer ☐

(3) parents(s) ☐

(4) friends ☐

(5) brother(s)/sisters(s) ☐

(6) teacher ☐

(7) no relationship ☐

(8) other ☐

Q5d Having rumours (lies) spread, **where** did that happen? (select all that apply)

(1) at school ☐

(2) at home ☐

(3) to/from school ☐

(4) online ☐

(5) elsewhere ☐

Q6 While in lock-down, **I was threatened**

(1) Yes ○
(2) No ○

Skip To: End of Block If While in lock-down, I was threatened = No

Q6a During the lock-down, **how often were you threatened**? (select one)

(1) Never ○
(2) Once or twice ○
(3) 4-6 times ○
(4) About once a month ○
(5) 2-3 times a month ○
(6) about once a week ○
(7) 2-3 times a week ○
(8) more than 3 times a week ○

Q6b Being threatened, how **harmful** was it to you? (select one)

(1) Not harmful at all ○
(2) Not very harmful ○
(3) Harmful ○
(4) Very harmful ○
(5) extremely harmful ○

Q6c Being threatened, what is **your relationship** with the person(s)? ***This person is ...***

(1) best friend(s) ☐
(2) classmate/peer ☐
(3) parents(s) ☐
(4) friends ☐
(5) brother(s)/sisters(s) ☐
(6) teacher ☐
(7) no relationship ☐
(8) other ☐

Q6d **Where** Being threatened, **where** did that happen? (select all that apply)

(1) at school ☐
(2) at home ☐
(3) to/from school ☐
(4) online ☐
(5) elsewhere ☐

Q7 While in lock-down, **I got hit, kicked or pushed around** (select one)

(1) Yes ○

(2) No ○

Skip To: End of Block If While in lock-down, I got hit, kicked or pushed around (select one) = No

Q7a During the lock-down, **how often were you hit, kicked or pushed around?** (select one)

(1) Never ○

(2) Once or twice ○

(3) 4-6 times ○

(4) About once a month ○

(5) 2-3 times a month ○

(6) about once a week ○

(7) 2-3 times a week ○

(8) more than 3 times a week ○

Q7b Being hit, kicked or pushed around, how **harmful** was it to you? (select one)

(1) Not harmful at all ○

(2) Not very harmful ○

(3) Harmful ○

(4) Very harmful ○

(5) extremely harmful ○

Q7c Being hit, kicked or pushed around, what is **your relationship** with the person(s)? ***This person is ...***

(1) best friend(s) ☐

(2) classmate/peer ☐

(3) parents(s) ☐

(4) friends ☐

(5) brother(s)/sisters(s) ☐

(6) teacher ☐

(7) no relationship ☐

(8) other ☐

Q7d Being hit, kicked or pushed around, **where** did that happen? (select all that apply)

(1) at school ☐

(2) at home ☐

(3) to/from school ☐

(4) online ☐

(5) elsewhere ☐

Q8 While in lock-down, someone was **mean to me** (select one)

(1) Yes ○

(2) No ○

Skip To: End of Block If While in lock-down, someone was mean to me. (select one) = No

Q8a During the lock-down, **how often was someone mean to you?** (select one)

(1) Never ○

(2) Once or twice ○

(3) 4-6 times ○

(4) About once a month ○

(5) 2-3 times a month ○

(6) about once a week ○

(7) 2-3 times a week ○

(8) more than 3 times a week ○

Q8b Being treated meanly, how **harmful** was it to you? (select one)

(1) Not harmful at all ○

(2) Not very harmful ○

(3) Harmful ○

(4) Very harmful ○

(5) extremely harmful ○

Q8c Being treated meanly, what is **your relationship** with the person(s)? ***This person is ...***

(1) best friend(s) ☐

(2) classmate/peer ☐

(3) parents(s) ☐

(4) friends ☐

(5) brother(s)/sisters(s) ☐

(6) teacher ☐

(7) no relationship ☐

(8) other ☐

Q8d Being treated meanly, **where** did that happen? (select all that apply)

(1) at school ☐

(2) at home ☐

(3) to/from school ☐

(4) online ☐

(5) elsewhere ☐

Q9 Thinking about the last week you were in lockdown - or last week if you are still in lockdown - please answer the following questions to indicate how much they applied to you. There are no right or wrong answers. Do not spend too much time on any statement.

	Did not apply to me at all (1)	Applied to me to some degree, or some of the time (2)	Applied to me to a considerable degree or a good part of time (3)	Applied to me very much or most of the time (4)
I found it hard to wind down (1)	○	○	○	○
I was aware of dryness of my mouth (2)	○	○	○	○
I couldn't seem to experience any positive feeling at all (3)	○	○	○	○
I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion) (4)	○	○	○	○
I found it difficult to work up the initiative to do things (5)	○	○	○	○
I tended to over-react to situations (6)	○	○	○	○
I experienced trembling (e.g. in the hands) (7)	○	○	○	○
I felt that I was using a lot of nervous energy (8)	○	○	○	○
I was worried about situations	○	○	○	○

in which I might panic and make a fool of myself (9)				
I felt that I had nothing to look forward to (10)	○	○	○	○
I found myself getting agitated (nervous) (11)	○	○	○	○
I found it difficult to relax (12)	○	○	○	○
I felt down-hearted and blue (13)	○	○	○	○
I was intolerant of anything that kept me from getting on with what I was doing (14)	○	○	○	○
I felt I was close to panic (15)	○	○	○	○
I was unable to become enthusiastic about anything (16)	○	○	○	○
I felt I wasn't worth much as a person (17)	○	○	○	○
I felt that I was rather touchy (18)	○	○	○	○
I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)	○	○	○	○

(19) I felt scared without any good reason (20)	○	○	○	○	
I felt that life was meaningless (21)	○	○	○	○	

CC Please tell us what for you has been the best part about being in lock-down?

.....

Q11 For each item, please indicate **how much you agree or disagree** with the following statements as they **apply to you**

	Not true at all (1)	Rarely true (2)	Sometimes true (3)	Often true (4)	True nearly all the time (5)
a. I am able to adapt (adjust) when changes occur. (1)	○	○	○	○	○
b. I can deal with whatever comes my way. (2)	○	○	○	○	○
c. I have always told the truth (3)	○	○	○	○	○
d. Having to cope with stress can make me stronger. (4)	○	○	○	○	○
e. I tend to bounce back after illness, injury, or other hardships. (5)	○	○	○	○	○
f. I always share my lollies/sweets/treats (6)	○	○	○	○	○

g. Under pressure, I stay focused and think clearly. (7)	○	○	○	○	○
h. I am not easily discouraged by failure. (8)	○	○	○	○	○
i. I think of myself as a strong person when dealing with life's challenges and difficulties. (9)	○	○	○	○	○
j. I like everyone I have met (10)	○	○	○	○	○
k. I believe I can achieve my goals, even if there are obstacles. (12)	○	○	○	○	○
l. I try to see the humorous (funny) side of things when I am faced with problems. (13)	○	○	○	○	○
m. I am able to handle unpleasant or painful feelings like sadness, fear, and anger. (14)	○	○	○	○	○

Q12 Please tell us what for you has been the worst part about being in lock-down?

.....

Q11a Do you, or did you, have **access to the internet** during the COVID-19 lock-down?

(1) No (please explain) ○
(2) Yes ○

Skip To: Q11c If Do you, or did you, have access to the internet during the COVID-19 lock-down? = No

(please explain)

Q11b Please tell us about the devices that were available to you to connect to the internet

	Was this your own device?		Did you share with others	
	Yes (1)	No (2)	Yes (1)	No (2)
laptop (1)	○	○	○	○
computer (2)	○	○	○	○
tablet (3)	○	○	○	○
smart phone (4)	○	○	○	○
other cell phone (5)	○	○	○	○
game console (6)	○	○	○	○
other means of accessing the internet (specify) (7)	○	○	○	○

Q11c Do you, or did you **communicate with friends** during the lock-down?

(4) Yes ○

(5) No ○

Skip To: Q11e If Do you, or did you communicate with friends during the lock-down? = No

Q11d Please indicate how often you use, or used the following to **communicate with friends** during the lock-down

	Never (1)	Once or twice (2)	About once a week (3)	2-3 times a week (4)	Almost everyday (5)	Every day (6)	Several times a day (7)	About every hour or more often (8)
text (1)	○	○	○	○	○	○	○	○
videochat (e.g. facetime, snapchat, whatsapp) (2)	○	○	○	○	○	○	○	○
social media (4)	○	○	○	○	○	○	○	○
talking on the phone (5)	○	○	○	○	○	○	○	○
meeting in hangouts or other groups (e.g. house party, zoom) (6)	○	○	○	○	○	○	○	○
other means to communicate (specify) (7)	○	○	○	○	○	○	○	○

Q11e Think about your activities before the lock-down and compare it to your activities during the lock-down. **Compared to before the lock-down,** how long would you have spent/are spending on the following during the lock-down:

	Much less than before lock-down (1)	Less than before lock-down (2)	About the same (3)	More than before the lock-down (4)	Much more than before the lock-down (5)
school work (1)	○	○	○	○	○
socializing with friends (talking, texting etc.) (2)	○	○	○	○	○
playing games (not online) (3)	○	○	○	○	○
playing online games (4)	○	○	○	○	○
using social media (5)	○	○	○	○	○
surfing the internet (6)	○	○	○	○	○
watching movies, tv, or other entertainment (7)	○	○	○	○	○
exercising (8)	○	○	○	○	○

Q13 How strongly would you **agree or disagree** with the following statements about how you **felt or are feeling**, while **in lock-down**

	Never (1)	Once or twice (2)	About once a week (3)	2-3 times a week (4)	Almost everyday (5)	Every day (8)
a. Happy (1)	○	○	○	○	○	○
b. Interested in life (2)	○	○	○	○	○	○
c. Satisfie with life (3)	○	○	○	○	○	○
d. That you had something important to contribute to society (4)	○	○	○	○	○	○
e. That you belonged to a community (like a social group, your school, or your neighbourhood) (5)	○	○	○	○	○	○
f. That our society is a good place, or is becoming a better place, for all people (6)	○	○	○	○	○	○
g. That people are basically (generally) good (7)	○	○	○	○	○	○

h. That the way our society works made sense to you (8)	○	○	○	○	○	○
i. That you liked most parts of your personality (9)	○	○	○	○	○	○
j. That you are good at managing the responsibilities of your daily life (10)	○	○	○	○	○	○
k. That you had warm and trusting relationships with others (11)	○	○	○	○	○	○
l. That you had experiences that challenged you to grow and become a better person (12)	○	○	○	○	○	○
m. Confident to think or express your own ideas and opinions (13)	○	○	○	○	○	○
n. That your life has a sense of direction or meaning to it (14)	○	○	○	○	○	○
o. Afraid of getting the Coronavirus (COVID-19) (15)	○	○	○	○	○	○

CC Finally some questions **about you**.

Q 14 Compared with other students about your age, how well do you achieve in overall:

▼ Much better than others (1) ... A bit better (2) … About the same (3) … A bit worse (4) ... Much worse (5)

Q15 What is your father's highest level of education?

▼ No formal education (1).... Primary or intermediate school (2) …High school graduate (3).. Bachelor degree (4) …. Master or Doctoral degree (5)

Q16 What is your mother's highest level of education?

▼ No formal education (1).... Primary or intermediate school (2) …High school graduate (3).. Bachelor degree (4) …. Master or Doctoral degree (5)

Q17 Which of these describes your monthly household income?

▼ under 2000 riyals (1).... 5000 riyals (2) …5000-10,000 riyals (3).. 10,000-15,000 riyals (4) …. 20,000 and greater (5) ….prefer not to say (6)

Q 18 In your home, what does your family consist of? (mark all those that apply)

▼ Father (1).... Mother (2) …grandparent (3)... uncles/aunts (4) …. Brother (enter number) (5) …sisters(enter numbers) (6)…other relatives(enter number) (7)

Q 19 Among my siblings (brothers and sisters), what is your order of birth?

▼ First-born (1).... Second-born (2) …Third-born (3) ... Forth-born (4) …. Fifth-born or later (5)

Q20 What country do you live in?

.....

Q 21 What is your age?

▼ 10 (1) ... 18 (9)

Q22 What is your gender

▼ Male (1) ... Female (2)….prefer not to say(3)

Q 23 What Year are you in?

▼ First -grade intermediate (1) ... Second -grade intermediate (2) …Third grade- intermediate (3)

Q 24 What is the name of your school?

.....

Q 25 What is the name of your town/city?

.....

تأثير الحجر المنزلي بسبب فيروس كورون المستجد -كوفيد- 19

يتوجب الحصول على موافقة الوالدين/ ولي الأمر إذا كنت دون الثمانية عشرة من العمر.
هل حصلت على موافقة الوالدين/ ولي الأمر للمشاركة في هذه الدراسة؟

(1) نعم ○

(2) لا ○

شكرًا على موافقتك على المشاركة في هذا الاستبيان!
بصفتك شاب / شابة دون الثمانية عشرة من العمر يتوجب عليك أن لا تباشر بالإجابة إلا إذا حصلت على موافقة ولي أمرك.

الإرشادات

الأسئلة هي عن أمور وقعت أثناء وجودك في الحجر المنزلي.
الرجاء استحضارها في ذهنك والإجابة عليها بأعلى درجة ممكنة من الصدق.
الأسئلة القليلة الأولى تتطلب الإجابة بنعم أو لا.
○ في حالة الإجابة بنعم فستوجه إليك أسئلة أخرى بخصوص الواقعة المذكورة.
○ في حالة الإجابة بلا، فسيتم توجيهك إلى السؤال التالي.
سيستغرق إتمام الاستبيان ١٠-١٥ دقيقة، وستساعدنا إجاباتك على فهم كيفية تأثر حياة الشباب أثناء فترة الحجر المنزلي.

أ.أ الأسئلة التالية تتعلق بالوجود في الحجر المنزلي. ذلك يتعلق بكونك خارج المدرسة، وتلزم منزلك خلال فترة وباء كوفيد ١٩.

ما عدد الأيام التي قضيتها قيد الحجر المنزلي؟ .....

ب. ب أين كنت متواجدًا؟ أو هل كنت في الحجر المنزلي؟

(1) بالمنزل مع الأسرة ○

(2) بالمنزل وحدك ○

(3) بفندق مع الأسرة ○

(4) في مكان آخر (الرجاء الإشارة إلى المكان في الحيز الوارد أدناه) ○

س 1: أثناء وجودي قيد الحجر المنزلي تعرضت للاستهزاء بي أو السخرية (اختر إجابة من الإجابتين التاليتين)

(1) نعم ○

(2) لا ○

انتقل إلى نهاية القسم في حال كانت الإجابة على سؤال "أثناء وجودي قيد الحجر تعرضت للاستهزاء؟" (اختر إحدى الإجابتين التاليتين) بـ(لا). ○

س1-أ كم مرة تعرضت للاستهزاء بك أو السخرية أثناء وجودك قيد الحجر المنزلي (اختر واحدة من الإجابات التالية)

(1) ولا مرة ○

(2) مرة أو مرتين ○

(3) 4-6 مرات ○

(4) حوالي مرة كل شهر ○

(5) حوالي مرتين إلى ثلاث مرات كل شهر ○

(6) حوالي مرة كل أسبوع ○

(7) مرتين إلى ثلاث مرات كل أسبوع ○

(8) أكثر من ثلاث مرات كل أسبوع ○

س1-ب ما مدى الضرر الذي لحق بك نتيجة للاستهزاء بك أو السخرية (اختر إحدى الإجابات التالية)

(1) لم يلحق بي أي ضرر مطلقا ○

(2) لم يلحق بي ضرر بالغ ○

(3) لحق بي ضرر ○

(4) لحق بي ضرر كبير ○

(5) لحق بي ضرر بالغ ○

س1-ج ما علاقتك بالشخص (الأشخاص) الذي قام بالاستهزاء بك أو السخرية منك؟ هل هذا الشخص ...

(1) صديق (أصدقاء) مقرب ☐

(2) زميل بالصف/ أحد الأقران ☐

(3) أحد الوالدين (كليهما) ☐

(4) أصدقاء ☐

(5) شقيق (أشقاء) شقيقة/ شقيقات ☐

(6) المدرس ☐

(7) لا تربطني به أي علاقة ☐

(8) غير ذلك ☐

س1-د أين تعرضت للاستهزاء أو السخرية منك (اختر جميع الإجابات المنطبقة على حالتك)

(1) في المدرسة ☐

(2) في المنزل ☐

(3) في طريقي من/ إلى المدرسة ☐

(4) على الانترنت ☐

(5) في مكانٍ آخر ☐

س2: أثناء وجودي قيد الحجر المنزلي تعرضت للإزعاج أو (المضايقة) (اختر إحدى الإجابتين التاليتين)

(1) نعم ○

(2) لا ○

انتقل إلى نهاية القسم في حال كانت الإجابة على سؤال "أثناء وجودي قيد الحجر تعرضت للاستهزاء؟" (اختر إحدى الإجابتين التاليتين) بـ(لا). ○

س2-أ كم مرة تعرضت للإزعاج من الآخرين أثناء وجودك قيد الحجر المنزلي؟ (اختر واحدة من الإجابات التالية)

(1) لم أتعرض للإزعاج إطلاقا ○

(2) مرة أو مرتين ○

(3) 4 إلى 6 مرات ○

(4) حوالي مرة في الشهر ○

(5) من مرتين على ثلاث مرات في الشهر ○

(6) حوالي مرة في الأسبوع ○

(7) من مرتين إلى ثلاث مرات في الأسبوع ○

(8) أكثر من ثلاث مرات في الأسبوع ○

س2-ب ما مدى الضرر الذي لحق بك نتيجة الإزعاج (اختر واحدة من الإجابات التالية)

(1) لم يلحق بي أي ضرر مطلقا ○

(2) لم يلحق بي ضرر بالغ ○

(3) لحق بي ضرر ○

(4) لحق بي ضرر كبير ○

(5) لحق بي ضرر بالغ ○

س2-ج ما علاقتك بالشخص (الأشخاص) الذي قام بإزعاجك؟ هل هذا الشخص ...

- (1) صديق (أصدقاء) مقرب ☐
- (2) زميل بالصف / أحد الأقران ☐
- (3) أحد الوالدين (كليهما) ☐
- (4) أصدقاء ☐
- (5) شقيق (أشقاء) شقيقة/ شقيقات ☐
- (6) مدرس ☐
- (7) لا تربطني به أي علاقة ☐
- (8) غير ذلك ☐

س2-د أين تعرضت للإزعاج (اختر جميع الإجابات المنطبقة على حالتك)

- (1) في المدرسة ☐
- (2) في المنزل ☐
- (3) في طريقي من / على المدرسة ☐
- (4) على الانترنت ☐
- (5) في مكان آخر ☐

س3: أثناء وجودي قيد الحجر المنزلي تعرضت للنعت بأوصاف مهينة (اختر إحدى الإجابتين التاليتين)

- (1) نعم ○
- (2) لا ○

انتقل إلى نهاية القسم في حال كانت الإجابة على سؤال "هل تعرضت لأوصاف مهينة أثناء وجودك قيد الحجر؟" (اختر إحدى الإجابتين التاليتين) بـ(لا). ○

س3-أ: كم مرة تعرضت للنعت بأوصاف مهينة أثناء وجودك قيد الحجر المنزلي؟ (اختر واحدة من الإجابات التالية)

- (1) لم أتعرض للنعت بأوصاف مهينة إطلاقا ○
- (2) مرة أو مرتين ○
- (3) 4 إلى 6 مرات ○
- (4) حوالي مرة في الشهر ○
- (5) من مرتين على ثلاث مرات في الشهر ○

(6) حوالي مرة في الأسبوع ○

(7) من مرتين إلى ثلاث مرات في الأسبوع ○

(8) أكثر من ثلاث مرات في الأسبوع ○

س3-ب ما مدى الضرر الذي لحق بك نتيجة نعتك بأوصاف مهينة؟ (اختر إحدى الإجابات التالية)

(1) لم يلحق بي أي ضرر مطلقا ○

(2) لم يلحق بي ضرر بالغ ○

(3) لحق بي ضرر ○

(4) لحق بي ضرر كبير ○

(5) لحق بي ضرر بالغ ○

س3-ج ما علاقتك بالشخص (الأشخاص) الذي قام بنعتك بأوصاف مهينة؟ هل هذا الشخص ...

(1) صديق (أصدقاء) مقرب □

(2) زميل بالصف / أحد الأقران □

(3) أحد الوالدين (كليهما) □

(4) أصدقاء □

(5) شقيق (أشقاء) شقيقة/ شقيقات □

(6) مدرس □

(7) لا تربطني به أي علاقة □

(8) غير ذلك □

س3-د أين تعرضت للنعت بأوصاف المهينة؟ (اختر جميع الإجابات المنطبقة على حالتك)

(1) في المدرسة □

(2) في المنزل □

(3) في طريقي من / على المدرسة □

(4) على الانترنت □

(5) في مكان آخر □

س4: أثناء وجودي قيد الحجر المنزلي تم التخلي أو استبعادي من قبل شخص (أشخاص) (اختر إحدى الإجابتين التاليتين)

(1) نعم ○

(2) لا ○

انتقل إلى نهاية القسم في حال كانت الإجابة على سؤال "هل تعرضت للإقصاء من قبل شخص (أشخاص) آخرين أثناء وجودك قيد الحجر؟" (اختر إحدى الإجابتين التاليتين) بـ(لا). ○

س4-أ: كم مرة تم التخلي عنك أو استبعادك أثناء وجودك قيد الحجر المنزلي؟ (اختر واحدة من الإجابات التالية)

(1) لم أتعرض للإقصاء إطلاقا ○

(2) مرة أو مرتين ○

(3) 4 إلى 6 مرات ○

(4) حوالي مرة في الشهر ○

(5) من مرتين على ثلاث مرات في الشهر ○

(6) حوالي مرة في الأسبوع ○

(7) من مرتين إلى ثلاث مرات في الأسبوع ○

(8) أكثر من ثلاث مرات في الأسبوع ○

س4-ب ما مدى الضرر الذي لحق بك نتيجة للتخلي عنك أو اسبعادك؟ (اختر إحدى الإجابات التالية)

(1) لم يلحق بي أي ضرر مطلقا ○

(2) لم يلحق بي ضرر بالغ ○

(3) لحق بي ضرر ○

(4) لحق بي ضرر كبير ○

(5) لحق بي ضرر بالغ ○

س4-ج ما علاقتك بالشخص (الأشخاص) الذي قام بالتخلي عنك أو باستبعادك؟ هل هذا الشخص ...

(1) صديق (أصدقاء) مقرب □

(2) زميل بالصف / أحد الأقران □

(3) أحد الوالدين (كليهما) □

(4) أصدقاء □

(5) شقيق (أشقاء) شقيقة/ شقيقات □

(6) مدرس □

(7) لا تربطني به أي علاقة □

(8) غير ذلك □

س4-د أين تم التخلي عنك أو استبعادك؟ (اختر جميع الإجابات المنطبقة على حالتك)

- (1) في المدرسة ☐
- (2) في المنزل ☐
- (3) في طريقي من / على المدرسة ☐
- (4) على الانترنت ☐
- (5) في مكان آخر ☐

س5: أثناء وجودي قيد الحجر المنزلي قام شخص (أشخاص) بنشر الشائعات (الأكاذيب) حولي (اختر إحدى الإجابتين التاليتين)

- (1) نعم ○
- (2) لا ○
- انتقل إلى نهاية القسم في حال كانت الإجابة على سؤال "هل تعرضت لأوصاف مهينة أثناء وجودك قيد الحجر؟" (اختر إحدى الإجابتين التاليتين) بـ(لا). ○

س5-أ: كم مرة تعرضت للشائعات (الأكاذيب) أثناء وجودك قيد الحجر المنزلي؟ (اختر واحدة من الإجابات التالية)

- (1) لم أتعرض للشائعات (للأكاذيب) إطلاقا ○
- (2) مرة أو مرتين ○
- (3) 4 إلى 6 مرات ○
- (4) حوالي مرة في الشهر ○
- (5) من مرتين على ثلاث مرات في الشهر ○
- (6) حوالي مرة في الأسبوع ○
- (7) من مرتين إلى ثلاث مرات في الأسبوع ○
- (8) أكثر من ثلاث مرات في الأسبوع ○

س5-ب ما مدى الضرر الذي لحق بك نتيجة نشر الشائعات (الأكاذيب) حولك؟ (اختر إحدى الإجابات التالية)

- (1) لم يلحق بي أي ضرر مطلقا ○
- (2) لم يلحق بي ضرر بالغ ○
- (3) لحق بي ضرر ○
- (4) لحق بي ضرر كبير ○

(5) لحق بي ضرر بالغ ○

س5-ج ما علاقتك بالشخص (الأشخاص) الذي قام بنشر الشائعات (الأكاذيب) حولك؟ هل هذا الشخص ...

(1) صديق (أصدقاء) مقرب □
(2) زميل بالصف / أحد الأقران □
(3) أحد الوالدين (كليهما) □
(4) أصدقاء □
(5) شقيق (أشقاء) شقيقة/ شقيقات □
(6) مدرس □
(7) لا تربطني به أي علاقة □
(8) غير ذلك □

س5-د أين تعرضت للنعت للشائعات (للأكاذيب)؟ (اختر جميع الإجابات المنطبقة على حالتك)

(1) في المدرسة □
(2) في المنزل □
(3) في طريقي من / على المدرسة □
(4) على الانترنت □
(5) في مكان آخر □

س6: أثناء وجودي قيد الحجر المنزلي تعرضت للتهديد من قبل شخص (أشخاص) (اختر إحدى الإجابتين التاليتين)

(1) نعم ○
(2) لا ○

انتقل إلى نهاية القسم في حال كانت الإجابة على سؤال "هل قام شخص (أشخاص) بتهديدك أثناء وجودك بالحجر؟" (اختر إحدى الإجابتين التاليتين) بـ(لا). ○

س6-أ: كم مرة تعرضت للتهديد أثناء وجودك قيد الحجر المنزلي؟ (اختر واحدة من الإجابات التالية)

(1) لم أتعرض للتهديد إطلاقا ○
(2) مرة أو مرتين ○
(3) 4 إلى 6 مرات ○
(4) حوالي مرة في الشهر ○

(5) من مرتين على ثلاث مرات في الشهر ○

(6) حوالي مرة في الأسبوع ○

(7) من مرتين إلى ثلاث مرات في الأسبوع ○

(8) أكثر من ثلاث مرات في الأسبوع ○

س6-ب ما مدى الضرر الذي لحق بك نتيجة للتهديد؟ (اختر إحدى الإجابات التالية)

(1) لم يلحق بي أي ضرر مطلقا ○

(2) لم يلحق بي ضرر بالغ ○

(3) لحق بي ضرر ○

(4) لحق بي ضرر كبير ○

(5) لحق بي ضرر بالغ ○

س6-ج ما علاقتك بالشخص (الأشخاص) الذي قام بتهديدك؟ هل هذا الشخص ...

(1) صديق (أصدقاء) مقرب □

(2) زميل بالصف / أحد الأقران □

(3) أحد الوالدين (كليهما) □

(4) أصدقاء □

(5) شقيق (أشقاء) شقيقة/ شقيقات □

(6) مدرس □

(7) لا تربطني به أي علاقة □

(8) غير ذلك □

س6-د أين تعرضت للتهديد؟ (اختر جميع الإجابات المنطبقة على حالتك)

(1) في المدرسة □

(2) في المنزل □

(3) في طريقي من / على المدرسة □

(4) على الانترنت □

(5) في مكان آخر □

س7: أثناء وجودي قيد الحجر المنزلي تعرضت للضرب أو الركل أو الدفع من قبل شخص (أشخاص) (اختر إحدى الإجابتين

التاليتين)

(1) نعم ○

(2) لا ○

انتقل إلى نهاية القسم في حال كانت الإجابة على سؤال "هل قام شخص (أشخاص) بضربك أو ركلك أو اضطهادك أثناء وجودك قيد الحجر؟" (اختر إحدى الإجابتين التاليتين) بـ(لا). ○

س7-أ: كم مرة تعرضت للضرب أو الركل أو الدفع أثناء وجودك قيد الحجر المنزلي؟ (اختر واحدة من الإجابات التالية)

(1) لم أتعرض للضرب أو الركل أو الاستقواء إطلاقا ○

(2) مرة أو مرتين ○

(3) 4 إلى 6 مرات ○

(4) حوالي مرة في الشهر ○

(5) من مرتين على ثلاث مرات في الشهر ○

(6) حوالي مرة في الأسبوع ○

(7) من مرتين إلى ثلاث مرات في الأسبوع ○

(8) أكثر من ثلاث مرات في الأسبوع ○

س7-ب ما مدى الضرر الذي لحق بك نتيجة للضرب أو الركل أو الدفع؟ (اختر إحدى الإجابات التالية)

(1) لم يلحق بي أي ضرر مطلقا ○

(2) لم يلحق بي ضرر بالغ ○

(3) لحق بي ضرر ○

(4) لحق بي ضرر كبير ○

(5) لحق بي ضرر بالغ ○

س7-ج ما علاقتك بالشخص (الأشخاص) الذي قام بضربك أو ركلك أو دفعك؟ هل هذا الشخص ...

(1) صديق (أصدقاء) مقرب □

(2) زميل بالصف / أحد الأقران □

(3) أحد الوالدين (كليهما) □

(4) أصدقاء □

(5) شقيق (أشقاء) شقيقة/ شقيقات □

(6) مدرس □

(7) لا تربطني به أي علاقة □

(8) غير ذلك ☐

س7-د أين تعرضت للضرب أو الركل أو الدفع؟ (اختر جميع الإجابات المنطبقة على حالتك)

(1) في المدرسة ☐

(2) في المنزل ☐

(3) في طريقي من / على المدرسة ☐

(4) على الانترنت ☐

(5) في مكان آخر ☐

س8: أثناء وجودي قيد الحجر المنزلي عاملني شخص ما بلؤم؟ (اختر إحدى الإجابتين التاليتين)

(1) نعم ○

(2) لا ○

انتقل إلى نهاية القسم في حال كانت الإجابة على سؤال "هل قام شخص (أشخاص) بالتعامل معك بشراسة أثناء وجودك قيد الحجر؟" (اختر إحدى الإجابتين التاليتين) بـ(لا). ○

س8-أ: كم مرة تعرضت للمعاملة اللئيمة أثناء وجودك قيد الحجر المنزلي؟ (اختر واحدة من الإجابات التالية)

(1) لم أتعرض لمعاملة لئيمة إطلاقا ○

(2) مرة أو مرتين ○

(3) 4 إلى 6 مرات ○

(4) حوالي مرة في الشهر ○

(5) من مرتين على ثلاث مرات في الشهر ○

(6) حوالي مرة في الأسبوع ○

(7) من مرتين إلى ثلاث مرات في الأسبوع ○

(8) أكثر من ثلاث مرات في الأسبوع ○

س8-ب ما مدى الضرر الذي لحق بك نتيجة لتعرضك لمعاملة لئيمة؟ (اختر إحدى الإجابات التالية)

(1) لم يلحق بي أي ضرر مطلقا ○

(2) لم يلحق بي ضرر بالغ ○

(3) لحق بي ضرر ○

(4) لحق بي ضرر كبير ○

(5) لحق بي ضرر بالغ ○

س8-ج ما علاقتك بالشخص (الأشخاص) الذي تعامل معك بلؤم؟ هل هذا الشخص ...

(1) صديق (أصدقاء) مقرب □
(2) زميل بالصف / أحد الأقران □
(3) أحد الوالدين (كليهما) □
(4) أصدقاء □
(5) شقيق (أشقاء) شقيقة/ شقيقات □
(6) مدرس □
(7) لا تربطني به أي علاقة □
(8) غير ذلك □

س8-د أين تعرضت لمعاملة لئيمة؟ (اختر جميع الإجابات المنطبقة على حالتك)

(1) في المدرسة □
(2) في المنزل □
(3) في طريقي من / على المدرسة □
(4) على الانترنت □
(5) في مكان آخر □

س9 تذكر الأسبوع الأخير الذي قضيته بالحجرالمنزلي أو الأسبوع الماضي إن كنت لا تزال قيد الحجر ثم أجب على الأسئلة التالية مشيرا إلى مدى انطباقها على تجربتك علما بأنه لا توجد إجابات صحيحة أو إجابات خاطئة فلا تمضي وقتا أطول من اللازم في أي عبارة

	1)لا تنطبق علي مطلقا	2) تنطبق عل حالتي بدرجة ما أو لجزء من الوقت	3) تنطبق على حالتي بدرجة كبيرة أو لجزء كبير من الوقت	4) تنطبق على حالتي بدرجة كبيرة جدا أو لمعظم الوقت
1) يصعب على إيجاد لحظات استرخاء	○	○	○	○
2) شعرت بجفاف في الفم	○	○	○	○
3) لم أستطع الشعور بأي مشاعر إيجابية مطلقا	○	○	○	○
4) شعرت بصعوبة في التنفس كتسارع في معدل التنفس أو شعرت بضيق تنفس رغم عدم الإجهاد البدني	○	○	○	○
5) وجدت صعوبة في المبادرة بالقيام ببعض الأمور	○	○	○	○
6) كنت أبالغ في رد فعلي تجاه ما أتعرض له من مواقف	○	○	○	○
7) شعرت برعشة كرعشة في اليدين على سبيل المثال	○	○	○	○
8) شعرت بأنني أستهلك الكثير من الطاقة العصبية	○	○	○	○
9) شعرت بالقلق من التعرض لمواقف قد أشعر فيها بالذعر أو أعرض نفسي للسخرية	○	○	○	○
10) شعرت بعدم وجود أمل يمكن التطلع إليه	○	○	○	○
11) وجدت نفسي أتصرف بتوتر (بعصبية)	○	○	○	○
12) وجدت صعوبة في الاسترخاء	○	○	○	○

13) شعرت بالإحباط والاكتئاب	○	○	○	○
14) لم أكن أتحمل أي مقاطعة أثناء قيامي بأمر ما	○	○	○	○
15) كنت على وشك الشعور بالذعر والهلع	○	○	○	○
16) لم تكن لدي القدرة على التحمس لأي شيء	○	○	○	○
17) شعرت بأنني فقدت قيمتي كشخص	○	○	○	○
18) شعرت بأنني أصبحت سريع التأثر	○	○	○	○
19) شعرت باضطراب في قلبي رغم عدم وجود إجهاد بدني (مثال: شعور بزيادة في معدل النبض أو اضطراب في ضربات القلب)	○	○	○	○
20) شعرت بالخوف بدون سبب وجيه	○	○	○	○
21) شعرت بأن الحياة قد فقدت معناها	○	○	○	○

ج ج حدثنا رجاء عن الجانب الإيجابي لفترة الحجر المنزلي من وجهة نظرك؟

.....

س 11 الرجاء الإشارة إلى مدى اتفاقك أو عدم اتفاقك مع العبارات التالية من حيث انطباقها على حالتك

	1)غير صحيحة مطلقا	2)نادرا ما تكون صحيحة	3)صحيحة أحيانا	4)صحيحة غالبا	5)صحيحة دائما
ا) أنا قادر على التكيف(التأقلم) عند حدوث تغييرات	○	○	○	○	○
ب) أستطيع التعامل مع كل ما يواجهني من أمور	○	○	○	○	○
ج) أنا دائما أقول الحقيقة	○	○	○	○	○
د) الاضطرار للتعامل مع الإجهاد العصبي يجعلني أكثر قوة	○	○	○	○	○
و) أنا دائما ما أتقاسم الحلويات والمصاصات والطعام الذي أحب	○	○	○	○	○
ز) أحتفظ بقدرتي على التركيز وصفاء التفكير تحت الضغط	○	○	○	○	○
ح) لا أشعر بالإحباط أو الفشل بسهولة	○	○	○	○	○
ط) أرى نفسي شخصا قويا في التعامل مع مصاعب وتحديات الحياة	○	○	○	○	○
ي) أعجبني كل الأشخاص الذين التقيتهم	○	○	○	○	○
ك) أعتقد أن بإمكاني تحقيق أهدافي رغم وجود العوائق	○	○	○	○	○

ل) أحاول أن أرى الجانب الطريف في كل الأمور وخاصة عندما تواجهني مشاكل	○	○	○	○	○
م) أنا قادر على التعامل مع المشاعر غير اللطيفة أو المؤلمة كالحزن والخوف والغضب	○	○	○	○	○

س12: حدثنا رجاء عن الجانب السلبي لتجربة الحجر المنزلي من وجهة نظرك

.....

س11-أ: هل لديك أو هل كانت لديك **إمكانية الوصول للإنترنت** خلال فترة الحجر المنزلي المتعلق بفيروس كورونا المستجد؟

(1) لا (يرجى الشرح) ○

(2) نعم ○

انتقل مباشرة إلى السؤال س11-ج في حالة كانت الإجابة على س11 -أ: هل لديك أو هل كانت لديك إمكانية الوصول للإنترنت خلال فترة الحجر المنزلي المتعلق بفترة كورونا المستجد؟ بـ(لا) (الرجاء الشرح)

س11-ب: حدثنا رجاء عن الأجهزة التي كانت متاحة لك لتتصل بالإنترنت؟

هل كان ذلك جهازك الخاص؟		هل شاركك آخرون في استعماله؟	
(1) نعم	(2) لا	(1) نعم	(2)لا

حاسوب نقال (لاب توب) (1)	○	○	○	○
حاسوب شخصي (كمبيوتر) (2)	○	○	○	○
حاسوب لوحي (تابلت)(3)	○	○	○	○
هاتف ذكي (4)	○	○	○	○
هاتف خلوي آخر (5)	○	○	○	○
جهاز ألعاب (6)	○	○	○	○
وسائل أخرى للوصول إلى الإنترنت) حدد (7)	○	○	○	○

س11-ج: هل تتواصل أو هل تواصلت مع أصدقاء أثناء فترة الحجر المنزلي؟

(1) نعم ○

(2) لا ○

انتقل مباشرة إلى السؤال س11-ي في حال كانت الإجابة على: هل تتواصل أو هل تواصلت مع أصدقاء أثناء فترة الحجر المنزلي؟ بـ(لا)

س 11-د: الرجاء بيان عدد المرات التي تستخدم فيها (أو كنت تستخدم فيها) الوسائل التالية للتواصل مع الأصدقاء أثناء وجودك قيد الحجر المنزلي؟

	لا/لم أستخدمها مطلقا (1)	مرة أو مرتين (2)	حوالي مرة أسبوعيا (3)	مرتين أو ثلاثة مرات أسبوعيا (4)	يوميا تقريبا (5)	كل يوم (6)	عدة مرات يوميا (7)	كل ساعة تقريبا أو أكثر من ذلك (8)
الرسائل النصية (1)	○	○	○	○	○	○	○	○
محادثة بالفيديو مثل: فيسبوك Facebook سنابتشات Snapchat واتسابWhatsApp (2)	○	○	○	○	○	○	○	○
وسائط التواصل الاجتماعي Social media(4)	○	○	○	○	○	○	○	○
المحادثات الهاتفية (5)	○	○	○	○	○	○	○	○
اللقاء الأماكن العامة أو المجموعات الأخرى مثل: تطبيقات هاوس بارتيHouse party وزووموZoom (6)	○	○	○	○	○	○	○	○
وسائل أخرى للتواصل (حدد) (7)	○	○	○	○	○	○	○	○

س 11-هـ: استحضر في ذهنك الأنشطة التي كنت تمارسها قبل الحجر المنزلي وقارنها بالأنشطة التي تمارسها/كنت تمارسها أثناء وجودك قيد الحجر المنزلي. بالمقارنة بما قبل الحجر المنزلي ما طول المدة التي تقضيها أو كنت تقضيها في الأمور التالية أثناء وجودك قيد الحجر المنزلي؟:

	أقل بكثير عما كان قبل الحجر المنزلي (1)	أقل عما كان قبل (2) الحجر المنزلي	(3) متساويان تقريبا	أكثر عما كان قبل (4) الحجر المنزلي	أكثر بكثير عما كان قبل الحجر المنزلي (5)
الأعمال المدرسية (1)	○	○	○	○	○
التواصل الاجتماعي مع الأصدقاء (مثال: التحادث والرسائل النصية و...إلخ) (2)	○	○	○	○	○
ممارسة الألعاب(ولكن ليس (عبر الإنترنت) (3)	○	○	○	○	○
ممارسة الألعاب (عبر الإنترنت) (4)	○	○	○	○	○
استخدام وسائط التواصل الاجتماعي (5)	○	○	○	○	○
(6) تصفح الإنترنت	○	○	○	○	○
مشاهدة الأفلام او التلفاز أو غير ذلك من وسائل الترفيه (7)	○	○	○	○	○
ممارسة التمرينات (8) الرياضية	○	○	○	○	○

س13: ما مدى اتفاقك أو اختلافك مع العبارات التالية حول ما شعرت به أو لازلت تشعر به أثناء وجودك قيد الحجر المنزلي؟

	1)مطلقا	2)مرة او مرتين	3) حوالي مرة كل أسبوع	4) حوالي مرتين إلى ثلاث مرات كل اسبوع	5) تقريبا يوميا	6) كل يوم
ا) أشعر بالسعادة	○	○	○	○	○	○
ب) أشعر بأنني مهتم بالحياة	○	○	○	○	○	○
ج) أشعر بالرضا عن حياتي	○	○	○	○	○	○
د) أشعر بأن لدي إسهامات مهمة للمجتمع	○	○	○	○	○	○
هـ) أنتمي لمجتمعي (مثال:مجموعتك المجتمعية أو مدرستك أو حيك)	○	○	○	○	○	○
و) أشعر بأن مجتمعنا حاليا يتسع لكافة الأفراد أو في طريقه لأن يصبح كذلك	○	○	○	○	○	○
ز) أشعر بأن جميع الناس طيبون بصفة عامة	○	○	○	○	○	○
ح) أشعر بمنطقية ما يدور في مجتمعنا	○	○	○	○	○	○
ط) تعجبني معظم جوانب شخصيتي	○	○	○	○	○	○
ي) أشعر بأنني أجيد إدارة مسؤوليات حياتي اليومية	○	○	○	○	○	○
ك) أشعر بأن علاقاتي مع	○	○	○	○	○	○

الآخرين تتسم بالدفء والثقة						
ل) أشعر بأن التجارب التي مررت بها والتحديات التي واجهتها قد جعلتني أنمو وأصبح شخصا أفضل	○	○	○	○	○	○
م) أصبحت أكثر ثقة بالنفس وأكثر قدرة على التعبير عن أفكاري وأرائي	○	○	○	○	○	○
ن) أشعر بأن حياتي قد أصبح لها معنى وبأنها تسير في الاتجاه الصحيح	○	○	○	○	○	○
س) أشعر بخوف من الإصابة بفيروس كورونا المستجد	○	○	○	○	○	○

ج ج وأخيرا بعض الأسئلة التي تتعلق بك:

س١٤: كيف تقيم إنجازك مقارنة بالطلاب الآخرين من فئتك العمرية؟

▼ أفضل بكثير من الاخرين (١) .... أفضل قليلا من الاخرين (٢) .... متساوية تقريبا (٣) .... أسوأ قليلا (٤) .... أسوأ كثيرا (٥)

س١٥ ما أعلى مستوى تعليمي لوالدك؟

▼ لا يوجد تعليم رسمي (١) ... مدرسة ابتدائية أو متوسطة (٢) ... خريج مدرسة ثانوية (٣) .. درجه البكالوريوس (٤) ... درجة الماجستير أو الدكتوراه (٥)

س ١٦ما أعلى مستوى تعليمي لوالدتك؟

▼ لا يوجد تعليم رسمي (١) ... مدرسة ابتدائية أو متوسطة (٢) ... خريج مدرسة ثانوية (٣) .. درجه البكالوريوس (٤) ... درجة الماجستير أو الدكتوراه (٥)

س ١٧ أي مما يلي يصف دخل أسرتك الشهري؟

▼ أقل من ٢٠٠٠ ريال (١) ... ٥٠٠٠ ريال (٢) ٥٠٠٠ - ١٠,٠٠٠ ريال (٣) .. ١٠,٠٠٠ - ١٥,٠٠٠ ريال (٤) ... ٢٠,٠٠٠ و أكثر (٥) أفضل عدم الإجابة (٦)

س ١٨ في منزلك، مم تتكون عائلتك؟ (ضع علامة على كل ما ينطبق)

▼ الأب (١) .... الأم (٢) ... الجد والجدة (٣) ... الأعمام / العمات (٤) .... أخوه (أدخل الرقم) (٥) ... أخوات (أدخل أرقام) (٦) ... أقارب أخرين (أدخل الرقم) (٧)

س ١٩ ما هو ترتيبك ولادتك بين اخوتك؟

▼ المولود الأول (1) ... المولود الثاني (2) ... المولود الثالث (3) ... المولود الرابع (4) .... المولود الخامس أواكثر(5)

س ٢٠ في أي بلد تقيم؟

_____

س٢١: ما عمرك؟

▼١٠ (١) .....١١ (٢).....١٢ (٣)...١٣ (٤)..١٤ (٥)...١٥ (٦).. ١٦ (٧).. ١٧ (٨)..١٨ (٩) ....

س٢٢: ما نوعك؟

▼أفضل عدم ذكر ذلك (٣) ...ذكر (٢) ...(١) انثي

س٢٣: في أي سنة دراسية أنت؟

▼الصف الأول المتوسط (١) ... الصف الثاني متوسط (٢) ... الصف الثالث المتوسط (٣)

س٢٤: ما اسم مدرستك؟

.....

س٢٥: ما اسم مدينتك؟

.....

Appendix C: Interview Protocol

Background

There is a paucity of research globally into the association between wellbeing, and mental health (depression and anxiety), and perceived academic performance during the COVID 19 lockdown. In addition, at the time of this writing, no other research studies have investigated how COVID-19 has affected the wellbeing, depression, and anxiety levels of middle school students in Saudi Arabia, taking into consideration demographic factors, the amount of school work, and perceived academic achievement, as well as their association with perceived academic achievement. Furthermore, most of the research studies exploring the impact of the lockdown on the people in Saudi Arabia has focused on the general population, and the efficiency of the remote education of university students (Tanveer et al., 2020) rather than middle school students. Therefore, there is a lack of research on middle school students in Saudi Arabia in particular. Exploring the effects of the pandemic lockdown on student's, mental health, and wellbeing as it relates to perceived academic achievement could afford stakeholders insight into how to re-integrate students back into face-to-face classrooms once the lockdown is over. Specifically, research findings could allow stakeholders to detect and identify any challenges associated with re-integration because of the prolonged use of an altered learning platform.

Semi-Structured Interviews

Participants

Interviews was conducted with:

Middle school students that participated in a quantitative study conducted in Mecca and Taif regions (see Appendix A).

Conduct of Interviews

I conducted semi-structured interviews with student's vis Teams. These were

semi-structured in that the conversations are framed using a set of opening questions designed to elicit information relevant to the topic and research questions. However, participants are free to leave at any time during the study and can decline to answer any or all interview questions without repercussions. The opening questions for each category of participants are shown below. The interviews took no more than 25 minutes.

Confidentiality and Anonymity

Interviews will be digitally recorded for later transcription. They will be retained so that I can analyse the content of the interviews and deleted the data when the analyses have been completed. Conversation topics are confidential. That is, whatever is discussed during the interview will not be shared beyond the interview. Comments made by participants may be included in a report that will be generated, but comments will not be attributed to individuals or school regions. The report will be provided to the University. Your records will be kept private and confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Certain people may need to see your study records. The only people who will be allowed to see these records are the Principal Investigator, research team, advising professors, and Flinders University of South Australia ethics board.

Introduction

Hi, I am Shatha Alharthi and I want to ask you about your perceptions of how the pandemic and remote learning have affected adolescent middle school students during COVID-19 lockdown. The interview should take no more than 20-25 minutes. Interview content will be kept confidential - it will not be shared. A report will include some of your comments, but they won't be attributed to you. We are going to discuss a range of aspects relating to life and schooling during Covid 19 lockdown. I hope you will feel free to raise any other issues that you think are relevant. You are free to decline to respond to any questions that you do not wish to answer.

This interview will be audio-recorded. There will be no one else who can hear the recording, the recording will not be transcribed, and the recording will be deleted after the interviews have been analysed. Would that be okay with you?

Interview Questions and prompts

The following questions will be used to open the conversation regarding students' perceptions of how the pandemic and remote learning have affected adolescent middle school students.

Issues	Interview questions
	Icebreaker question /Introductory questions
	1. Welcome back to school, have you enjoyed it so far? a. How do you feel about coming back to school? 2. Which thing did you miss most while learning online? *Probes*: Face to face learning, Group studies, social interaction. a. Can you explain your feeling about that? i) Why?
	Views about online classes/ Home environment
	3. What was it like to be at home? a. Can you describe to me a typical school day when you were taking classes at home? 4. Who helped you with your classes during the day? b. Follow-up: Did anyone offer you support with your classwork? i. Can you describe who and how they helped? 5. While learning online, what are the challenges you faced? *Probes*: Disruption/unavailability of space or device /access to the internet. a. In what ways was it a challenge? i. Can you describe it to me? b. Regarding your internet, was the connection weak or did you have any issues with it? If so, i. Was it weak before or did you have issues before the lockdown? ii. Please describe. c. Can you describe to me how you think it affected your learning? d. Can you describe to me how it impacted your interactions? (Online classmates, your family) 6. Can you describe the difference in the amount and kind of homework/schoolwork you received while schooling online versus in the classroom? a. Please give examples. b. How did you receive feedback for your homework and online courses? i. Can you please explain how this differed or was the same as face-to-face classroom homework? ii. Was it as much feedback or less compared to face-to-face classroom homework iii. c. How do you think this affected your academic performance? i. Please explain. 7. Do you think that learning online instead of face-to-face affected your academic performance? a. How do you think learning online versus in school affected your academic performance? i. Can you describe it to me in detail **If the participant says negatively:** b. In what way was it negative? (Grades, the perceived extent of learning, etc.) i. Can you describe to me how you felt it was negative? Based on what? **Likewise, if the answer is positive**

8. Can you describe your learning strategy with class materials when in face-to-face classes, versus while conducting classes online?
    a. Can you describe what you think is the major differences in your learning strategy between the face-to-face and online learning?
9. Compared with other students about your age, how well do you achieve overall? (Much better than others ... A bit better … About the same … A bit worse … Much worse)

Living arrangements

10. Given that you're in lockdown. Tell me a little bit about your living arrangements when you were in lockdown? *Probe*s: living with parents/grandparents/uncles /aunts/ cousins /how many people in your household/older sisters.
11. Do you have any friends or relatives that are at your home often?
    a. Can you tell me a bit more about that?
12. What was it like to study when you had this kind of family structure? *Probes*: talking to grandparents/ Older siblings' support.
    a. Can you explain your feelings about that?
    b. How did they provide support?
        i. Can you describe a time they gave you support or encouragement?
13. How do you perceive your home environment to have impacted your learning during the pandemic lockdown? *Probes:* any family member with COVID, family support, financial issues, increased responsibilities, etc.
    a. Can you give me an example of a time you felt supported and why you felt it was supporting?
14. To what extent has Islamic religious belief enabled you to persist during the Covid-19 lockdown?
    a. How do you think this impacted your learning? Can you please describe a situation where your Islamic religious beliefs impacted your learning?

Impact of COVID on the wellbeing of students

15. What is the best part of coming back to school?
    a. What was the worst part about going back to school?
        i. Please describes in detail.
16. When you returned to school, were you excited about seeing your classmates and friends?
    a. Why or why not?
        i. Please describes in detail.

17. What kind of things worry you most or do you find most challenging as a result of COVID?
    a. How do you think those things affected your overall happiness or ability to function?
        i. Please describe in detail.
18. How well did you cope with the lockdown situation? *Probes:* a feeling of fear regarding COVID situation
    a. What makes you feel this way?
    b. Follow up: How did the lockdown affect your level of happiness?
        i. Please explain in detail how it affected our happiness.

19. What kind of pressures have you experienced? *Probes:* school-related issues/ pressure of studies/pressure of not being able to perform academically / family or health-related issues, family financial strain
    a. What kind of homework or activities did teachers set?
    b. What feedback did you get from your teacher on the homework?
    c. Follow up: was this a source of tension or worry for you?
        i. Please explains in detail.

20. What about your feeling, what emotion did you feel the most during online learning? Happy/ sad/ indifferent/confusion/annoyance, etc.
21. Is there anything that your teachers or classmates did to better help you adjust to the new learning platform?
    a. Can you please describe in detail the actions taken by teachers and classmates to help you with the new platform?
    b. Can you please describe in detail how you felt this helped you and in what aspects?

The link between wellbeing and academic achievement

22. Do you think that your wellbeing or health has any kind of impact on your academic performance or achievement?
    a. Why?
        i. Please explain.
    b. Can you give an example of how your health or wellbeing was affected and in what way?

23. Do you believe, and in what way, does your happiness affect your level of academic achievement?
    a. Please give an example.
24. Do you believe, and in what way, does your belief about your potential to succeed affect your academic achievement?
    a. Please explain/elaborate.

Mental health

25. How do you feel about the whole COVID and lockdown situation?
a. How did you cope with that?
26. How would you say your mood changed, if at all, as a result of the lockdown?
    a. Please give a detailed example.
27. Were you able to talk to your friend or family member about this situation?
    a. How were they able to address your concerns or provide you support?

28. As compared to when you were physically in school, can you describe any changes in your level of happiness or ability to function in everyday life or in getting your school work done while in lockdown?
    a. Please provide an example of a change in your level of happiness or function.

The link between mental health and academic achievement

29. Do you think that feeling of [whatever student state in previous question] had an impact on your learning and academic achievement?
    a. If yes, how?
30. How would you say COVID or lockdown affected your motivation to attend class and study?
    a. Why? Please explain.
31. During the lockdown, did you experience any difficulty with your online classes as a result of a change in your mood?
    a. Please elaborate on your response and describe what led to the feelings and event.

أسئلة المقابلة	القضايا
أسئلة تمهيدية	
1. مرحبا بك مرة أخرى في المدرسة، هل انت مستمتع بعودتك للمدرسة؟ b. ما هو شعورك حيال العودة إلى المدرسة؟	
2. ما أكثر شيء افتقدته أثناء التعلم عبر الإنترنت؟ *دعائم الاجابة*: التعلم وجها لوجه، الدراسة بشكل جماعي، التفاعل الاجتماعي. b. هل يمكنك شرح شعورك حيال ذلك؟ ii) لماذا؟	
وجهات النظر حول الفصول الدراسية عبر الإنترنت / البيئة المنزلية	
3. كيف كان شعورك عندما كنت في المنزل؟ a. هل يمكنك أن تصف لي يوما دراسيا نموذجيا عندما كنت تأخذ دروسا في المنزل؟	
4. من ساعدك في دروسك خلال اليوم؟ b. متابعة: هل قدم لك أي شخص الدعم في واجباتك الدراسية؟ i. هل يمكنك وصف من وكيف ساعدوك؟	
5. أثناء التعلم عبر الإنترنت، ما هي التحديات التي واجهتها؟ *دعائم الاجابة*: انقطاع الإنترنت / عدم توفر المساحة او المكان للدراسة أو عدم توفر الجهاز / الوصول إلى الإنترنت (مشكله فنية) e. باي طريقة كان ذلك يمثل تحديا؟ i. هل يمكنك أن تصف لي ذلك؟ f. فيما يتعلق بالإنترنت الخاص بك، هل كان الاتصال ضعيفا أم كان لديك أي مشاكل معه؟ إذا كان الأمر كذلك، i. هل كانت ضعيفة من قبل أم هل واجهت مشاكل قبل الإغلاق؟ ii. يرجى التوضيح. g. هل يمكنك أن تصف لي كيف تعتقد أنه أثر على تعلمك؟ h. هل يمكنك أن تصف لي كيف أثرت على علاقاتك وتفاعلاتك؟ (زملاء الدراسة عبر الإنترنت، عائلتك)	
6. هل يمكنك وصف الفرق في مقدار ونوع الواجب المنزلي الذي تلقيته أثناء التعلم عبر الإنترنت مقابل ماكنت تتلقاه في الفصل الدراسي وجها لوجه؟ d. يرجى إعطاء أمثلة. e. كيف تلقيت ملاحظات حول واجبك المنزلي او اثناء عقد الدروس عبر المنصة؟ i. هل يمكنك أن تشرح كيف يختلف هذا أو كان هو نفسه الواجب المنزلي في الفصل الدراسي وجها لوجه؟ ii. هل كان ذلك بنفس القدر من التعليقات أو أقل مقارنة بالواجبات المنزلية في الفصل الدراسي وجها لوجه f. كيف تعتقد أن هذا أثر على أدائك الأكاديمي؟ i. يرجى التوضيح.	
7. هل تعتقد أن التعلم عبر الإنترنت بدلا من وجها لوجه أثر على أدائك الأكاديمي؟ a. كيف تعتقد أن التعلم عبر الإنترنت مقابل المدرسة أثر على أدائك الأكاديمي؟ i. هل يمكن أن تصفها لي بالتفصيل **إذا قال المشارك ان الأثر كان سلبيا:** b. بأي طريقة كانت سلبية؟ (الدرجات، المدى المتصور للتعلم، إلخ.) i. هل يمكنك أن تصف لي كيف شعرت أنه كان سلبيا؟ بناء على ماذا؟ **وبالمثل، إذا كانت الإجابة إيجابية**	

8. هل يمكنك وصف استراتيجية التعلم الخاصة بك بمواد الفصل عندما تكون في الفصول الدراسية وجها لوجه، مقابل أثناء إجراء الفصول الدراسية عبر الإنترنت؟ هل قرأتم وسألتم اسالة؟
    a. هل يمكنك وصف ما تعتقد أنه الاختلافات الرئيسية في استراتيجية التعلم الخاصة بك بين التعلم وجها لوجه والتعلم عبر الإنترنت؟
9. بالمقارنة مع الطلاب الآخرين حول عمرك، ما مدى نجاحك بشكل عام؟ (أفضل بكثير من غيرها ... أفضل قليلا ... عن نفس الشيء ... أسوأ قليلا ... أسوأ بكثير)

ترتيبات المعيشة

10. بالنظر إلى أنك في حالة إغلاق. أخبرني قليلا عن ترتيبات معيشتك عندما كنت في حالة إغلاق؟ *دعائم الاجابة: العيش مع الوالدين / الأجداد / الأعمام / العمات / أبناء العم / كم عدد الأشخاص في منزلك / الأخوات الأكبر سنا.*
11. هل لديك أي أصدقاء أو أقارب في منزلك كثيرا؟
    b. هل يمكن أن تخبرني المزيد عن ذلك؟
12. كيف كانت الدراسة عندما كان لديك هذا النوع من البنية الأسرية؟ *دعائم الاجابة*: التحدث إلى الأجداد / دعم الأشقاء الأكبر سنا.
    c. هل يمكنك شرح مشاعرك حيال ذلك؟
    d. كيف قدموا الدعم؟
        i. هل يمكنك وصف الوقت الذي قدموا لك فيه الدعم أو التشجيع؟
13. كيف ترى أن بيئتك المنزلية قد أثرت على تعلمك أثناء إغلاق الوباء؟ *دعائم الاجابة:* أي فرد من أفراد الأسرة مصاب ب كوفيد-١٩، ودعم الأسرة، والقضايا المالية، وزيادة المسؤوليات، وما إلى ذلك.
    b. هل يمكن أن تعطيني مثالا على وقت شعرت فيه بالدعم ولماذا شعرت أنه كان دعما؟
14. إلى أي مدى مكنك المعتقد الديني الإسلامي من الاستمرار والصمود أثناء الحجر نتيجة تفشي كوفيد-١٩؟
    b. كيف تعتقد أن هذا أثر على تعلمك؟ هل يمكنك وصف موقف أثرت فيه معتقداتك الدينية الإسلامية على تعلمك؟

تأثير كوفيد-١٩ على رفاهية الطلاب

15. ما هو أفضل جزء في العودة إلى المدرسة؟
    b. ما هو أسوأ جزء في العودة إلى المدرسة؟
        ii. يرجى وصف ذلك بالتفصيل.
16. عندما عدت إلى المدرسة، هل كنت متحمسا لرؤية زملائك وأصدقائك؟
    b. لماذا ولماذا لا؟
        ii. يرجى وصف ذلك بالتفصيل.

17. ما نوع الأشياء التي تقلقك أكثر أو تجدها أكثر صعوبة نتيجة لتفشي كوفيد-١٩؟
    b. كيف تعتقد أن هذه الأشياء أثرت على سعادتك العامة أو قدرتك على العمل؟
        j. يرجى وصف ذلك بالتفصيل.
18. ما مدى تعاملك مع حالة الإغلاق؟ *التحقيقات:* شعور بالخوف فيما يتعلق بحالة COVID
    c. ما الذي يجعلك تشعر بهذه الطريقة؟
    d. متابعة: كيف أثر الإغلاق على مستوى سعادتك؟
        ii. يرجى توضيح بالتفصيل كيف أثر ذلك على سعادتنا.

19. ما نوع الضغوط التي واجهتها؟ *دعائم الاجابة:* القضايا المتعلقة بالمدرسة / ضغط الدراسات / ضغط عدم القدرة على الأداء الأكاديمي / الأسرة أو القضايا المتعلقة بالصحة، الضغط المالي للأسرة
    d. ما نوع الواجبات المنزلية أو الأنشطة التي حددها المعلمون؟
    e. ما هي التعليقات التي تلقيتها من معلمك على الواجب المنزلي؟
    f. متابعة: هل كان هذا مصدر توتر أو قلق بالنسبة لك؟
        ii. يرجى التوضيح بالتفصيل.

20. ماذا عن شعورك، ما هي المشاعر التي شعرت بها أكثر أثناء التعلم عبر الإنترنت؟ سعيد / حزين / غير مبال / ارتباك / إزعاج، إلخ.
21. هل هناك أي شيء فعله معلموك أو زملاؤك في الفصل لمساعدتك بشكل أفضل على التكيف مع منصة التعلم الجديدة؟
    c. هل يمكنك أن تصف بالتفصيل الإجراءات التي اتخذها المعلمون وزملاء الدراسة لمساعدتك في النظام الأساسي الجديد؟
    d. هل يمكنك أن تصف بالتفصيل كيف شعرت أن هذا ساعدك وفي أي جانب؟

الصلة بين الرفاهية والتحصيل الدراسي

22. هل تعتقد أن رفاهيتك أو صحتك لها أي نوع من التأثير على أدائك الأكاديمي أو إنجازك؟
    c. لماذا؟
        ii. يرجى التوضيح.
    d. هل يمكنك إعطاء مثال على كيفية تأثر صحتك أو رفاهيتك وبأي طريقة؟

23. هل تؤمن، وبأي طريقة، هل تؤثر سعادتك على مستوى تحصيلك الأكاديمي؟
    b. يرجى إعطاء مثال.
24. هل تؤمن، وبأي طريقة، هل يؤثر إيمانك بقدرتك على النجاح على إنجازك الأكاديمي؟
    b. يرجى التوضيح / التفصيل.

الصحة النفسية

25. ما هو شعورك حيال كوفيد-١٩ بأكمله وحالة الإغلاق؟
    b. كيف تعاملت مع ذلك؟
26. كيف تقول إن مزاجك تغير، إن تغير على الإطلاق، نتيجة للإغلاق؟
    b. يرجى إعطاء مثال مفصل.
27. هل تمكنت من التحدث إلى صديقك أو أحد أفراد عائلتك حول هذا الموقف؟
    b. كيف تمكنوا من معالجة مخاوفك أو تقديم الدعم لك؟

28. بالمقارنة مع الوقت الذي كنت فيه جسديا في المدرسة، هل يمكنك وصف أي تغييرات في مستوى سعادتك أو قدرتك على العمل في الحياة اليومية أو في إنجاز عملك المدرسي أثناء الإغلاق؟
    b. يرجى تقديم مثال على تغيير في مستوى سعادتك أو وظيفتك.

الصلة بين الصحة النفسية والتحصيل الدراسي

29. هل تعتقد أن هذا الشعور [مهما كانت حالة الطالب في السؤال السابق] كان له تأثير على تعلمك وإنجازك الأكاديمي؟
    b. إذا كانت الإجابة بنعم، كيف؟
30. كيف تقول إن كوفيد-١٩ أو الإغلاق أثر على دافعك لحضور الفصل والدراسة؟
    b. لماذا؟ يرجى التوضيح.
31. أثناء الإغلاق، هل واجهت أي صعوبة في دروسك عبر الإنترنت نتيجة لتغيير مزاجك؟
    b. يرجى توضيح ردك ووصف ما أدى إلى المشاعر والحدث.

Appendix D: Data Preparation

This appendix begins by discussing the preliminary analyses conducted to obtain clean and relevant data. Data preparation is an essential step to answer the research questions postulated in this study. Further, Chapter 4: presents the results that have been achieved by carefully preparing the data for the main analysis. Several processes are involved in these preliminary analyses, which include an exploration of missing values for all variables, including socioeconomic status (SES) variables, the MHC-SF and DASS-21 scales, and the set of demographic items; multicollinearity between SES variables; the goodness of fit analysis; identifying variables that are likely to have substantial relationships with the outcome; a one-way ANOVA test; dropping any outliers and non-associated variables; and, finally, a description of the data analysis process.

This chapter provides an account of the data preparation process undertaken to ensure the validity of the measurement model for the variables used in the study before testing the associations, which are discussed in Chapter 4:. The construct validity of measuring instruments, including the Depression Anxiety Stress Scales (DASS-21) and the Mental Health Continuum-Short Form (MHC-SF) scale, was thoroughly examined. Specific items from the MHC and DASS-21 were selected for the model, and evidence-supported justifications for not using all the items available for measuring MHC and the full DASS-21 scale are provided.

1.1 Missing Value Analysis

In accordance with the recommendations of Madley-Dowd et al. (2019), who highlighted limitations in relying solely on the proportion of missing data for data imputation decisions, careful consideration was given to handling missing data to ensure the validity and reliability of the analysis. In line with this, cases with more than 50% of their responses missing were removed as they did not provide sufficient information for reliable data imputation. The study began with an initial participant pool of 497 cases. Cases were excluded in sequence based on certain criteria: lack of consent (19 cases), high scores on social desirability (23 cases), and more than 50% missing data

on the major constructs (53 cases). The process was carried out using listwise deletion to maintain as much data as possible within each scale and demographic variable, which ended up with 401 remaining cases (See Table 3.6 in Chapter 3 for a summary of the sequence of case inclusion and exclusion).

The proportion of missing data can significantly impact statistical inferences, as discussed by Dong and Peng (2013). Although no established cut-off percentage exists for valid statistical inference in datasets with missing data, various recommendations have been suggested in the literature (Dong & Peng, 2013). For instance, Schafer (1999) suggested that a missing rate of 5% or less is inconsequential, indicating that it is unlikely to substantially affect statistical analysis. Conversely, Bennett (2001) argued that when the missing data exceeds 10%, the statistical analysis is prone to bias. In the current study, a conservative approach was adopted by selecting a 50% cut-off threshold to exclude cases with substantial missing information, influenced by previous research and practical considerations (Dong & Peng, 2013). This threshold strikes a balance between retaining sufficient data for analysis and reducing potential bias while aligning with the understanding that excessive missing data can compromise the reliability and validity of the analysis.

In the current study, cases with more than 50% incomplete overall response were excluded on the MHC-SF or DASS-21 scale or the set of demographic items (see Chapter 3). For example, in the case of the MHC-SF scale consisting of 14 items, if a participant had 7 or more missing responses (50% of the total), their data was considered incomplete and their case was removed from the analysis as described in Chapter 3.

The distribution of missing values for the three variables included in the SES measure (father's education, mother's education, and household income) were examined and is summarised in Table F.1. A total of 37 respondents (9.2% of the total sample) did not report on any of the three SES variables.

Figure F. 1

Frequency of SES Variables to Examine Missing Values

	Frequency	Percentage	Valid percentage
No missing data	313	78.1	78.1
Missing data in one variable	51	12.7	12.7
Missing data in all three variables	37	9.2	9.2
Total	401	100.0	100.0

While it is not known why respondents did not answer these questions, one possible explanation could be that embarrassment may have played a role. As Teske et al. (2006) suggested, some respondents may have been embarrassed to answer questions about their parents' education or household income, especially if they felt that their parents' education or income was lower than average. Another possibility is based on a study by Ozodiegwu et al. (2020), which found that respondents who did not complete high school or college were more likely to have low incomes and were less likely to report their household income. A further possibility is that some respondents did not have access to the information they needed to answer these questions; for example, they may not have known or been uncertain of their parents' qualifications or income.

The analysis of missing values for all variables data was tested using Little's MCAR test (Little, 1988). The results revealed that the missing values were distributed completely at random ($\chi^2(201) = 223.7$, $p > 0.05$). Moreover, construct-level missingness did not exceed 10% of the sample. The overall number of missing values across all variables included in the SEM model was 4.15% ($n = 433$) of the total values. Given that missingness was small (<5%) and appeared to be MCAR, there was no need for any form of imputation. Moreover, Full Information Maximum Likelihood (FIML) was used during the SEM analyses. This method maximisers the use of covariances and effectively handles missing data without the need for imputation (Muthén & Muthén, 2009). Therefore, imputation was not required for this analysis. This proportion of missing values in the data is considered low (less than 5%) and thus is unlikely that they have significantly biased the results of the analysis (Joseph et al., 2015).

1.2 Multicollinearity

Multicollinearity among SES variables was examined through Spearman Correlation Coefficients. As shown in Table F.2, all correlation coefficients were below 0.8, indicating that there was no essential overlap between the variables and, therefore, no issues with multicollinearity arose (Hair et al., 2010).

Table F.2

Spearman Correlation Coefficients for SES Variables

		Father education 4 categories	**Mother education 4 categories**	**Household income 4 categories**
		Spearman's rho		
Father education 4 categories	Correlation Coefficient	1.000	0.487**	0.418**
	Sig. (2-tailed)		<0.001	<0.001
	N	364.000	364.000	313.000
Mother education 4 categories	Correlation Coefficient	0.487**	1.000	0.211**
	Sig. (2-tailed)	<0.001		<0.001
	N	364.000	364.000	313.000
Household income 4 categories	Correlation Coefficient	0.418**	0.211**	1.000
	Sig. (2-tailed)	<0.001	<0.001	
	N	0.0313	313.000	313.000

1.3 Data Transformation

The categories of the education level of the participants' parents in this study were: "No formal education," "Primary or intermediate school," "High school graduate," "Bachelor's degree," and "Master's or Doctoral degree." For analysis purposes, the researcher combined "No formal education" and "Primary or intermediate school education" into a single category called "Primary or intermediate school or lower." This decision was made based on the distribution of education levels among the participants' fathers and mothers, as shown in Tables F.3 and F.4, primarily due to the small percentage with no formal education. As a result, four education level categories were created for further statistical analysis, as presented in Tables F.5 and F.6.

Table F.3

Frequency of Father's Highest Level of Education

	Frequency	Percentage	Valid percentage
No formal education	9	2.2	2.5
Primary or intermediate school	25	6.2	6.9
High school graduate	92	22.9	25.3
Bachelor's degree	173	43.1	47.5
Master's or Doctoral degree	65	16.2	17.9
Total valid	364	90.8	100.0
Total	401	100.0	

Note. Missing =37 (9.2%)

Table F.4

Frequency of Mother's Highest Level of Education

	Frequency	Percentage	Valid percentage
No formal education	22	5.5	6.0
Primary or intermediate	67	16.7	18.4
High school graduate	80	20.0	22.0
Bachelor's degree	165	41.1	45.3
Master's or Doctoral degree	30	7.5	8.2
Total valid	364	90.8	100.0
Total	401	100.0	

Note. Missing =37 (9.2%)

Table F.5

Revised Frequency of Mother's Education

	Frequency	Percentage	Valid percentage
Primary or intermediate school or less	89	22.2	24.5
High school graduate	80	20.2	22.0
Bachelor's degree	165	41.1	45.3
Master's or Doctoral degree	30	7.5	8.2
Total valid	364	90.8	100.0
Total	401	100.0	

Note. Missing =37 (9.2%)

Table F.6

Revised Frequency of Father's Education

	Frequency	Percentage	Valid percentage
Primary or intermediate school or less	34	8.5	9.3
High school graduate	92	22.9	25.3
Bachelor's degree	137	43.1	47.5
Master's or Doctoral degree	65	16.2	17.9
Total valid	464	90.8	100.0
Total	401	100.0	

Note. Missing =37 (9.2%)

In this study, participants' reported household monthly income was categorised into five groups: (a) those with a household income of 20,000 Saudi Arabian riyals (SAR) or more (1.0 SAR = approximately 0.41 Australian dollars), (b) those with income between 5,000 to 10,000 riyals, (c) those with income between 10,000 to 15,000 riyals, (d) those with income of 5,000 riyals or less, and (e) those with an income under 2,000 riyals. Two of the initial categories— "less than 5,000 riyals" and "less than 2,000 riyals"—were eventually merged into a single category labeled "5,000 riyals or less" for analysis. These two income categories were merged because there was only a small percentage (2.2%) of participants who reported their income to be under 2,000 riyals (see Table F.7). As a result, four income categories were created for further statistical analysis, as presented in Table F.8.

Table F.7

Frequency of Household Income Categories

	Frequency	Percentage	Valid percentage
Under 2000 riyals	9	2.2	2.5
5000 riyals	25	6.2	6.9
5000-10,000 riyals	70	17.5	19.3
10,000-15,000 riyals	113	28.2	31.2
15,000 and greater	96	23.9	26.5
Prefer not to say	49	12.2	13.5
Total valid	362	90.3	100.0
Total	401	100.0	

Note. Missing =39 (9.7%)

Table F.8

Revised Frequency of Household Income Categories

	Frequency	Percentage	Valid percentage
5000 riyals or less	34	8.5	10.9
5000-10,000 riyals	70	17.5	22.4
10,000-15,000 riyals	113	28.2	36.1
15,000 and greater	96	23.9	30.7
Total valid	313	78.1	100.0
Total	401	100.0	

Note. Missing =88 (21.9%)

The original data collection process included capturing the total number of siblings by summing up the reported number of brothers and sisters for each participant. Table F.9 presents the frequency and percentage distribution of valid responses regarding the number of siblings provided by participants. The reported number of siblings ranged from 2 (32 respondents, 15.7%) to11 (2 respondents, 1%). None of the respondents reported having no siblings or only one sibling. Almost a quarter of families (n = 54, 26.5%) had three children, with smaller proportions having 7 (n = 8, 3.9%), 8 (n = 8, 3.9%), 9 (n = 1, 0.5%), 10 (n = 2, 1%), and 11 (n = 2, 1%) siblings. Due to the small percentage of certain categories, participants were categorised into three groups based on family size: three or fewer siblings (42.2%), four to five siblings (33.8%), and six or more siblings (24%) (see Table F.10). These categories were used in subsequent statistical analyses. However, due to a significant number of missing responses and to ensure the reliability of the analysis, variables related to family structure were eventually excluded from the final analysis. While the data on siblings does not play a part in the analytical process, it contributes to the sociodemographic portrait of the participant sample. Therefore, their inclusion in this appendix serves to present a more nuanced understanding of the study's sample, which may be of interest to researchers or readers delving into the detailed characteristics of the respondents.

Table F.9

Participants' Number of Brothers and Sisters

Number of siblings	Frequency	Percentage	Valid percentage
		Brothers	
0	2	0.5	0.7
1	97	24.2	35.5
2	88	21.9	32.2
3	53	13.2	19.4
4	22	5.5	8.1
5	8	2.0	2.9
6+	3	0.6	1.2
Total valid	273	68.1	100.0
Missing	128	31.9	
		Sisters	
0	0	0	0
1	91	22.7	37.1
2	81	20.2	33.1
3	41	10.2	16.7
4	14	3.5	5.7
5	12	3.0	4.9
6+	6	1.4	2.4
Total valid	245	61.1	100.0
Missing	156	38.9	

Table F.10

Revised Frequency of Number of Siblings

	Frequency	Percentage	Valid percentage
3 and less	86	21.4	42.2
4-5	69	17.2	33.8
6+	49	12.2	24.0
Total valid	204	50.9	100.0
Total	401	100.0	

Note. Missing =197 (49.1%)

1.4 Participant Demographics

In this research, the survey inquired about extended family members, such as grandparents, aunts, and uncles. However, it was noted that most participants did not provide comprehensive information about these relatives living with them, aside from immediate family members. This could be attributed to intricate or unclear family arrangements or the absence of extended family members in some households.

Of the 401 participants in this study, 341 (84%) reported that their family included their father. However, 15% (n = 60) of participants did not provide an answer to this question. In

addition, 387 (96.5%) did not provide information about whether their mother was included in the family. Similarly, 375 (93.5%) did not provide an answer concerning grandparents, although most (86%, *n* = 345) respondents reported that their family included uncles and aunts. Fifty-six (13.9%) participants did not provide an answer to the family structure survey question. There was a considerable amount of missing data related to siblings, parents, and extended family members, which suggested that there might have been misunderstandings or omissions by the participants. Therefore, to uphold the reliability of the analysis and reduce bias, variables associated with family structure, which had a substantial number of missing responses, were omitted from the final analysis.

1.5 Potential Clustering

In this study, schools were chosen and students within them were recruited and comprised the research sample. This sampling approach may contradict the independence of individual observations, so the influence of clustering was investigated by estimating the intra-class correlation (ICC), which was calculated in Mplus to estimate the extent of possible clustering by school. The coefficient values ranged from .02 to .08, which were low for all variables (< 0.1), indicating that multilevel modelling was not required (Askell-Williams & Lawson, 2015).

1.6 Independent and Dependent Variable Measures

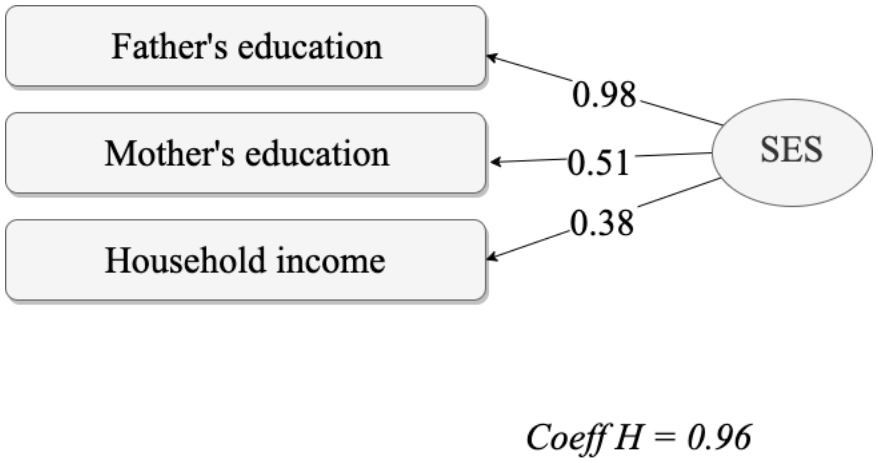
1.6.1 Socioeconomic Status (SES)

A one-factor model of SES with three indicators —father's education, mother's education, and household income were conducted using Mplus, as part of an exploratory analysis. The model involved estimating the factor loading of the three indicators (see Figure 1.1). In the model fit test, the chi-square (x^2) statistic of the model was zero because the model was a saturated model, resulting in zero degrees of freedom (CFI = 1, TLI = 1, RMSEA = 0). Therefore, the number of distinct sample moments and the number of distinct parameters to be estimated were the same as six in the model (Agresti, 2002). Consequently, due to the absence of degrees of freedom (*df* = 0), hypothesis testing could not be conducted. As a result, a factor score for SES was generated from a

latent construct obtained from the saturated model. This factor score was subsequently integrated as an observed variable within the final SEM model. This approach generated a more parsimonious model for analysis and allowed for the retention of comprehensive information from father's education, mother's education, and household income. Socioeconomic status holds significant theoretical importance as a predictor of academic achievement, which is a view well-supported by the existing literature (Chen & Weikart, 2008; Erdem & Kaya, 2021), and is discussed more thoroughly in Chapter 2. Therefore, it was essential to include all three SES factors (father's education, mother's education, and household income) in the final SEM model (see Figure F.1).

Figure F.1

Path Diagram of a Single-Factor Model of SES



1.6.2 Schoolwork and Demographic

Table F.11 presents descriptive statistics for perceived academic achievement, schoolwork level, demographics and SES.

Table F.11

Frequency and Percentages of Perceived Academic Achievement, Schoolwork Level, and Gender

	Frequency	**Percentage**	**Valid percentage**
		Perceived academic	
Much better than others	113	28.2	30.9
A bit better	107	26.7	29.2
About the same	105	26.2	28.7
A bit worse	33	8.2	9.0
Much worse	8	2.0	2.2
Total valid	366	91.3	100
Missing	35	8.7	
		Schoolwork	
Much less than before lock-down	186	46.4	47.4
Less than before lock-down	67	16.7	17.1
About the same	84	20.9	21.4
More than before the lock-down	31	7.7	7.9
Much more than before	24	6.0	6.1
Total valid	392	97.8	100.0
Missing	9	2.2	
		Gender	
Male	177	44.1	48.6
Female	183	45.6	50.3
Prefer not to say	4	1.0	1.1
Total valid	364	90.8	100.0
Missing	37	9.2	

Descriptive Statistics of SE and Age

	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
SES	364	-2.017	1.477	-0.00001	0.980649
Age	359	10.000	18.000	14.6992	1.52403
Valid N (listwise)	357				

One-way ANOVA was employed to assess the significance of the association between students' self-reported achievement level and several factors, including, demographic, schoolwork levels, age, and gender. As shown in Table F.12, the overall one-way ANOVA revealed a statistically significant difference in average achievement scores based on the amount of schoolwork assigned (F [4, 359] = 7.714, $p < .05$). This signifies that the quantity of schoolwork given to students is indeed linked to their academic achievement as suggested by Gahir et al. (2022). Additionally, age was found to be a significant factor, with differences in average achievement scores based on age (F [8, 350] = 2.055, $p < .05$). This implies that age has an impact

on academic achievement scores, with statistically significant variations observed among different age groups. Gender also played a significant role, as the analysis revealed differences in average achievement scores based on gender (F [2, 361] = 7.485, $p < .05$).

The ANOVA findings underscore the significance of these variables, justifying their inclusion in the final SEM model due to their observed associations with academic achievement outcomes and their role in explaining variations in these outcomes.

It is important to note that the one-way ANOVA results for SES indicated no statistically significant difference in average achievement scores (F [59, 275] = 1.155, $p > .05$). However, in the subsequent multivariate structural equation modelling (SEM) analysis in Chapter 4, which incorporated various other predictors and examined the relationships between multiple variables simultaneously, the direct predictive effect of SES on academic achievement was determined to be significant. Conversely, the direct predictive effects of schoolwork and age on academic achievement were found to be non-significant. Such disparities between bivariate correlations and multivariate results are not uncommon in research (Lutz & Eckert, 1994; Shifrer et al., 2011). This multivariate approach can capture complex interactions that may not be evident in univariate analyses like ANOVA. SEM includes all the variables in the model simultaneously, allowing for statistical control of other variables. This control can reveal the unique contribution of SES to achievement when the influence of other variables is considered. SEM can have increased statistical power, which can potentially reveal significance in SES that ANOVA might not detect.

Table F.12

ANOVA Results for Differences in Achievement Scores among Schoolwork and Demographics Variables

	Sum of squares	**Df**	**Mean square**	**F**	**Sig.**
			Schoolwork		
Between groups	31.579	4	7.895	7.714	.000
Within groups	367.396	359	1.023		
Total	398.975	363			
			Age		
Between groups	17.746	8	2.218	2.055	.040
Within groups	377.870	350	1.080		
Total	395.616	358			
			Gender		
Between groups	15.952	2	7.976	7.485	.001
Within groups	384.663	361	1.066		
Total	400.615	363			
			SES		
Between groups	74.334	59	1.260	1.155	.223
Within groups	300.102	275	1.091		
Total	374.436	334			

The relationships between schoolwork, demographics variables, and academic achievement were addressed through the examination of ANOVA analyses. While acknowledging the limitations of the data and the need for further investigation, this study's findings provide valuable insights into the intricate dynamics that influence children's academic outcomes in relation to those variables.

The outcome variable "subjective academic achievement" is categorical but was treated as continuous in the Structural Equation Modelling (SEM). Therefore, a Multinomial Logistic Regression (MNLR) analysis was conducted in SPSS to investigate the impact of treating the variable "subjective academic achievement" as categorical, allowing for differences to be observed between its categorical representations in MNLR, and continuous representations in SEM. Specifically, the MNLR aimed to determine whether the predictors identified in the SEM analysis are also significant in the context of the MNLR, thereby examining whether treating the outcome as continuous altered the relationships under investigation.

In MNLR, the influence of various predictor variables, including wellbeing, mental health, SES, age, gender, and schoolwork, on different categories of subjective academic achievement was examined. This analysis enabled control for other variables, with a primary focus on the lowest

category “Abit better/Much better than other” within the four outcome levels, which serves as the reference group.

The overall findings revealed a modest pseudo-$R^{\wedge 2}$ value of 24.2% (Nagelkerke), indicating the model’s explanatory power. Moreover, the model exhibited a relatively high classification accuracy of 63.4%, affirming its predictive capabilities.

For “Much worse / a bit worse” group, wellbeing emerged as the most influential predictor, with a negative effect (β = -1.096, *Odds* =.334). This result indicated that students with better wellbeing (see Table F.13 for parameter estimates) were significantly less likely to be in the low-achievement group and more likely to be in the high-achievement group. These findings align with the SEM analysis presented in Chapter 4, reinforcing the substantial role of wellbeing as the primary predictor of self-perceived academic achievement among Saudi middle school students during the lockdown.

Although schoolwork involvement showed marginal significance (p =.092), their effects did not align with initial expectations. Greater schoolwork involvement was associated with a higher probability of being in the low-achievement group “Much worse/A bit worse” category when compared to the reference category, “A bit better/Much better than before” (β =-.362, *Odds*=.696), which is consistent with the SEM results where the frequency of schoolwork involvement did not exhibit significant associations with students' self-perceived academic achievement during the lockdown. Here, wellbeing remained the dominant predictor.

Similarly, SES showed marginal significance (p =.052), with high SES students being more likely than low-SES students to be in the low-achievement group (β = -.424, *Odds*= .655), considering the influence of other factors like wellbeing and mental health. The significance influence of SES is similar in both MNLR and SEM analyses.

Mental health was found to be marginally significant (p =.052), but its influence was specific to the “Much worse/A bit worse” group, where students with higher levels of depression and anxiety were more likely to be in the low-achievement category (β = .757, *Odds*= 2.132). The

results are consistent with those from the SEM analysis, as they both indicate that while mental health exhibited marginal significance, its influence was specific to the "Much worse/A bit worse" group, but it was not identified as a predictor of students' self-perceived academic achievement.

For "About the Same" category, only wellbeing was significant (p = .006), indicating that students with better wellbeing were significantly less likely (β = -.409, *Odds*=.664) to be in the low-achievement group and more likely to be in the high-achievement group. Age was not a significant predictor in SEM, while gender showed significance in SEM.

The current study prioritised SEM analysis over MNLR analysis for its ability to comprehensively understand complex variable relationships, revealing nuanced effects that simpler regression models overlook. The results revealed valuable insights into how the predictors reported in the SEM analysis in Chapter 4 also hold significance within the context of MNLR. This comparison provided a comprehensive understanding of whether treating the outcome as continuous alters the relationships being tested. These findings reinforce the strong link between higher wellbeing and superior academic achievement, echoing the conclusions drawn from the SEM analysis. Thus, the decision to treat subjective academic achievement as a continuous variable in SEM is supported by the robustness and explanatory capacity of the model.

Table F.13

Multinomial Logistic Regression Results

Achievement[a]	**B**	**Std. Error**	**Sig.**	**Exp(B)**
	Much worse/A bit worse			
Intercept	.232	2.311	.920	
Schoolwork	-.362	.215	.092	.696
Mental health	.757	.243	.002	2.132
Wellbeing	-1.096	.241	<.001	.334
SES	-.424	.218	.052	.655
Age	-.180	.158	.254	.835
[Female=.00]	1.088	.430	.011	2.970
[Female=1.00]	0[b]	.	.	
	About the same			
Intercept	.612	1.270	.630	
Schoolwork	-.036	.114	.755	.965
Mental health	-.186	.204	.362	.830
Wellbeing	-.409	.150	.006	.664
SES	-.031	.129	.812	.970
Age	-.087	.087	.315	.917
[Female=.00]	.016	.247	.949	1.016
[Female=1.00]	0[b]	.	.	

a. The reference category is: A bit better/Much better than before.

b. This parameter is set to zero because it is redundant.

Classification

	Predicted			
Observed	Much worse/ A bit worse	About the same	A bit better/ Much better than before	Percentage correct
Much worse/Abet worse	17	1	22	42.5
About the same	4	6	91	5.9
A bit better/Much better than before	8	3	200	94.8
Overall Percentage	8.2	2.8	88.9	63.4

1.6.3 DASS-21 Factor Structure

Confirmatory Factor Analysis (CFA) was conducted in Mplus to test the factor structure of the Depression Anxiety Stress Scales (DASS-21) (Lovibond & Lovibond, 1996) in a sample of Saudi middle school adolescents. The aim of this analysis was to determine if the hypothesised factor structure is supported by the collected data. The DASS-21 is purported to has three sub-scales: depression, anxiety, and stress (Lovibond & Lovibond, 1996). Overall, the theoretical constructs measured by the scales performed according to their original conceptualisations with the Saudi student sample. However, minor modifications were made to some items to achieve an adequate model fit, including dropping items that did not substantially contribute to their conceptualized factors due to high cross loadings, low loadings on the intended factor, or highly correlated errors suggesting a sub-factor (Kline, 2016). Specifically, items were dropped if their loading was below 0.5 or if their loadings were greater than 0.5 on two or more factors (Hair et al., 2010). The threshold of 0.5 or higher was chosen to ensure practical significance for sample sizes of 150 and above (Hair et al., 2010; Ledesma & Valero-Mora, 2007). The specific items that were dropped were "I found it difficult to work up the initiative to do things" from the depression factor and "I felt I was close to panic" from the anxiety factor. These modifications were based on the work of Kline (2011), who proposed that CFA models should be modified to improve model fit when necessary, such as by using multiple indicators (MIs) to account for measurement error in observed variables. Duffy et al. (2005) found that the results of CFA did not support the three-factor hypothesis encompassing depression, anxiety, and stress in adolescents. During the subsequent CFA conducted in Mplus, it was found that the stress factor needed to be omitted from the analysis. This decision was in accordance with findings reported by other researchers using the DASS-21 with adolescents and as suggested by the CFA undertaken in this study. Shaw et al. (2017) also found that the DASS-21 does not have good discriminant validity in adolescents and that a two-factor model provides a better fit to the data than a three-factor model. These studies suggest that the DASS-21 may not be as effective in measuring stress in adolescents as it is in adults. This is likely because the symptoms of stress, anxiety, and depression can overlap considerably in young people

(Jovanovic et al., 2021; Shaw et al., 2017). As a result, it may be difficult to distinguish between these three emotional states in adolescents using the DASS-21.

Additionally, since this research was interested in measuring only depression and anxiety as experienced by the young people in this study, the stress factor was removed from the measures. Following removal of the stress subscale, two domain-specific factors comprising the DASS-21 subscales were tested. These two domain-specific factors measured depression and anxiety. However, the 14-item 2-factor models did not meet the criteria for adequate fit, as shown in Table F.14. Model fit was achieved when two items were dropped from the scale, one from the depression factor— "I found it difficult to work up the initiative to do things"—and one from the anxiety factor— "I felt I was close to panic". The reason for this adjustment was because the item "I found it difficult to work up the initiative to do things" was found to cross-load on the anxiety factor and correlated with another item from the anxiety factor, "I was worried about situations in which I might panic and make a fool of myself," indicating a sub-factor and suggesting that one of these items could be excluded from the scale. Therefore, model trimming (following guidelines by Kline, 2016) consisted of removing this item on the depression factor. "I felt I was close to panic" from the anxiety factor was also removed because it was cross-loaded with the depression factor, indicating that it may be measuring a common underlying construct that is present in both conditions. The relationship between panic and depression is well-known; individuals experiencing panic might also feel emotions of hopelessness, helplessness, and worthlessness, which are characteristic of depression. This overlap in symptoms could lead to cross-loading on both factors. Furthermore, panic and depression often co-occur and share similar underlying causes, suggesting that this item might measure a common construct present in both conditions.

In line with the considerations outlined above regarding item modifications and the overlap between symptoms of anxiety and depression, it was chosen to retain the item "I was worried about situations in which I might panic and make a fool of myself" in the anxiety factor because it captures a specific aspect of anxiety experiences related to potential panic reactions in social

situations, which is more conceptually aligned with anxiety than depression. The item reflects concerns about potential embarrassment or social evaluation, which are typical manifestations of anxiety. Although the item mentions panic, it does not necessarily imply the presence of depression symptoms. Anxiety and panic attacks can co-occur, and individuals experiencing anxiety may also have concerns about potential panic-like reactions in certain situations. Therefore, this item is considered to be more relevant to the anxiety construct and was retained in the anxiety factor to better represent the distinct nature of anxiety and depression in the analysis.

Table F.14

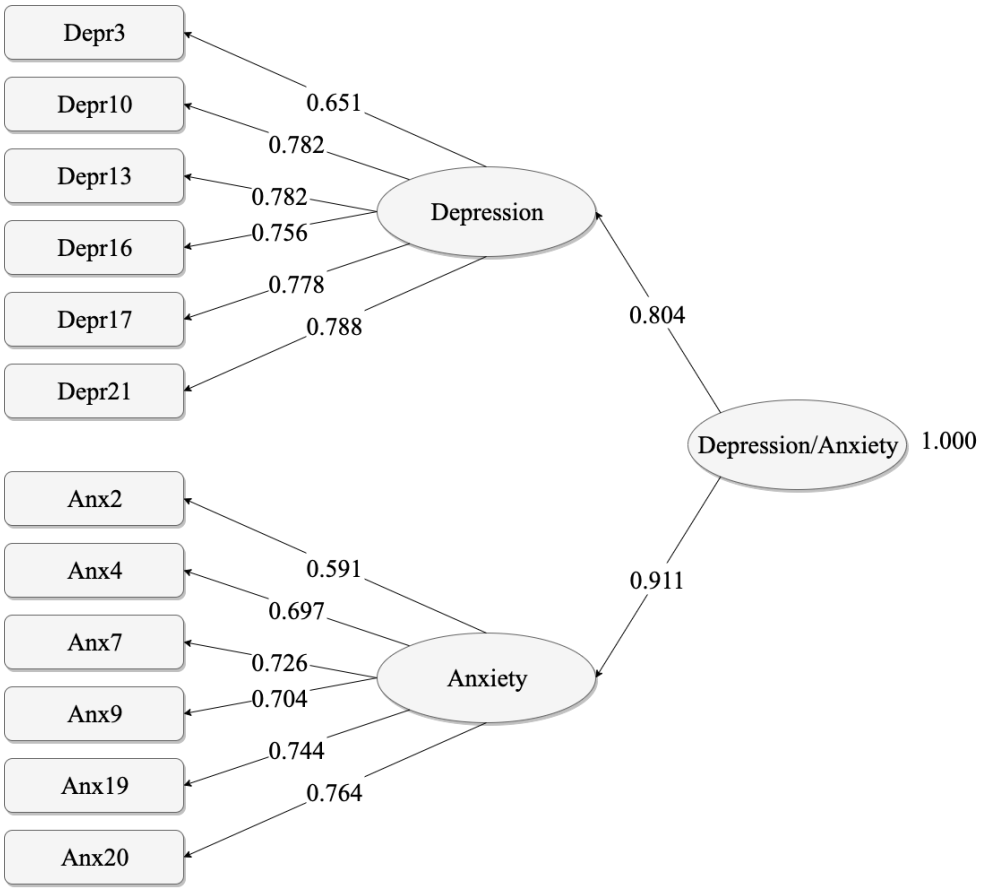
Goodness-of-Fit Indices for Proposed Models (DASS-21)

Model	χ2 (p-val)	df	CFI	TLI	RMSEA	SRMR
3-factor model, 21 items	490.77 (<0.001)	186	0.90	0.89	0.064 [0.057 0.071]	0.066
2-factor model, 14 items	193.67 (<0.001)	76	0.93	0.92	0.062 [0.051 0.073]	0.055
2-factor model, 13 items (item 5 removed)	129.65 (<0.001)	64	0.96	0.95	0.051 [0.038 0.063]	0.045
2-factor model, 12 items (item 5 and 15 removed)	1483.65 (<0.001)	66	0.97	0.96	0.043 [0.027 0.057]	0.037

Following trimming, the final 12-item 2-factor DASS model shown in Figure F.2 was found to fit the data well. The Coefficient *H* value was 0.89 for depression and 0.86 for anxiety, suggesting that measurement of these factors was reliable.

Figure F.2

Standardised Estimates for the Final DASS-21 Factor Model (12 Items, 2 Factors)



In the final 2-factor domain-specific factor model for the DASS-21, all items loaded strongly on the depression and anxiety factors (minimum = .567 and almost all above .7, all *p*-values <0.001). The coefficients for depression and anxiety are reported at 0.89 and 0.86 respectively.

1.6.4 MHC-SF Factor Structure

A CFA was conducted in Mplus to confirm the factor structure of the Mental Health Continuum-Short Form (MHC-SF) scale. The scales generally measured what they were intended to measure in this study's Saudi student sample. However, some items were removed or modified to improve the scales' reliability and validity. These changes were based on the work of Kline (2011).

The 14-item Keyes (2009) MHC-SF model of Emotional Wellbeing (EWB), Social Wellbeing (SWB), and Psychological Wellbeing (PWB) was tested and found to have a very good

fit after trimming (see Table F.15). In the initial 3-factor model, all the items had loadings greater than 0.6 but showed a non-acceptable fit. Following trimming, the final 9-item 3-factor model shown in Figure F.3 was a very good fit with the data, after modifications were made based on the highest correlated errors, which suggested a possible sub-factor and therefore worsened the model fit. Trimming involved dropping five items from the scale. The first two items were from the SWB factor: "That our society is a good place, or is becoming a better place, for all people" and "That people are basically good." The second two were from the PWB factor: "That you had warm and trusting relationships with others" and "That you liked most parts of your personality." The final item, "Satisfied with life," was dropped from the EWB factor. These five items were removed on the basis that the student participants in this study may have been confused about the meanings of the questions due to their adolescent stage of life and inexperience with the concepts involved, which were considered more appropriate for older respondents (Szabó, 2010).

The item "That our society is a good place, or is becoming a better place, for all people" from the SWB factor showed high correlation with the item "Satisfied with life" from the EWB factor and the item "That you had experiences that challenged you to grow and become a better person" from the PWB factor. As a result, the item, "That our society is a good place, or is becoming a better place, for all people," was removed from the model. After this removal, the model fit indices improved, but CFI, TLI, and RMSEA were still lower than the corresponding cut-offs (0.95, 0.95, and 0.06), as shown in Table F.15.

Further analyses revealed that the item "Satisfied with life" cross-loaded on both the SWB and PWB factors and was also correlated with the item "That you had experiences that challenged you to grow and become a better person" from the PWB factor. Consequently, the item "Satisfied with life" was removed in the second step of the analysis, resulting in an improved model fit, as reported in Table F.15. However, the MIs revealed that the item "That you had warm and trusting relationships with others" on the PWB factor was cross-loaded on both the EWB and SWB factors, suggesting a potential sub-factor and indicating that this item needed to be removed.

Despite the improvement of the model fit (see Table F.15), the item "That people are basically good" on the SWB factor was highly correlated with "That the way our society works made sense to you" on the same factor. This suggested a potential sub-factor. Moreover, these two items also had a high correlation of error terms, indicating that removing one of them could further enhance the model fit. Consequently, it was decided to remove the item "That people are basically good" from the scale. It was evident that these items posed challenges for students in understanding or responding to them, which ultimately compromised their ability to contribute meaningfully to the measurement of wellbeing factors. Due to these difficulties, it was necessary to remove these items during the model trimming process, as they were deemed less suitable for the study's Saudi student sample, particularly due to their adolescent stage of life and inexperience with the concepts involved (Rotenberg, 2019).

Similarly, the item "That you liked most parts of your personality" on the PWB factor cross-loaded on the EWB factor, which indicated a possible sub-factor, so only one of the items was needed. Moreover, the item "That you liked most parts of your personality" on the PWB factor was highly correlated with the item "Good at managing the responsibilities of your daily life" on the SWB factor. This indicates that one of these items should be excluded from the scale. Considering these findings, the item "That you liked most parts of your personality" was removed.

Table F.15

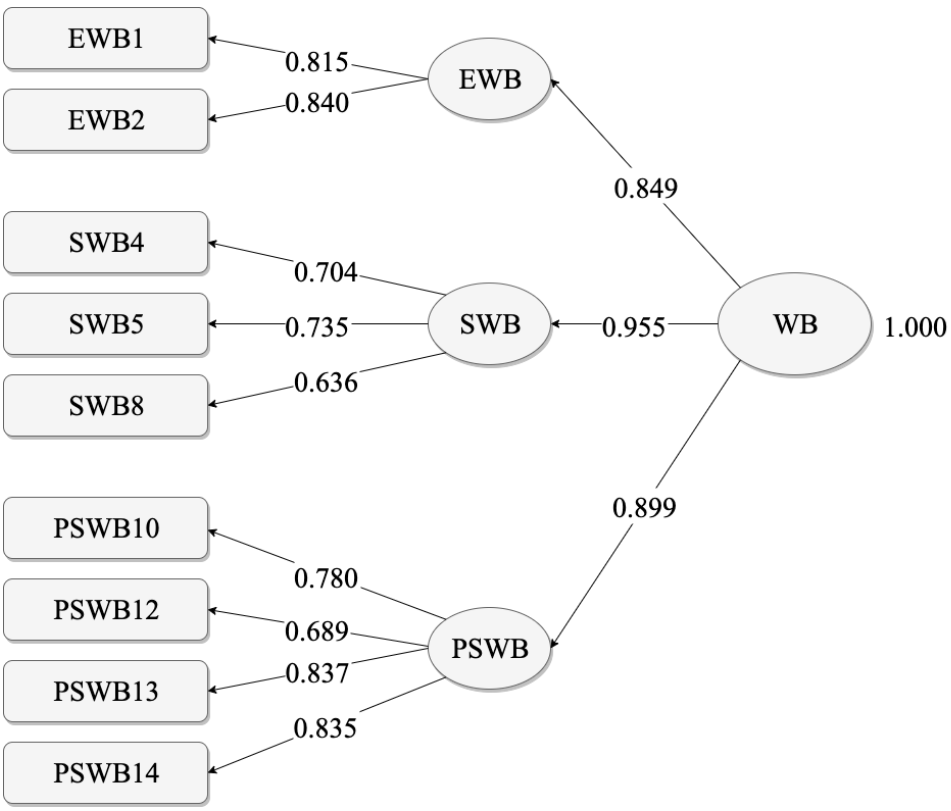
Goodness-of-Fit Indices for Proposed Wellbeing 3-Factor Model

Model	χ2 (p-val)	df	CFI	TLI	RMSEA	SRMR
3 Factor model, 14 items	263.76 (<0.001)	74	0.914	0.894	0.082 [0.071 - 0.092]	0.046
3 Factor model, 13 items. Item 6 was removed	188.23 (<0.001)	62	0.935	0.919	0.073 [0.061 - 0.085]	0.042
3 Factor model, 12 items. Items 6, 3 were removed	138.60 (<0.001)	51	0.950	0.935	0.067 [0.054 - 0.080]	0.041
3 Factor model, 11 items. Items 6, 3, 11 were removed	104.57 (<0.001)	41	0.958	0.944	0.063 [0.048 - 0.079]	0.034
3 Factor model, 10 items. Items 6, 3, 11, 7 were removed	66.28 (<0.001)	32	0.973	0.963	0.053 [0.035 - 0.071]	0.030
3 Factor model, 9 items. Items 6, 3, 11, 7, 9 were removed	1079.97 (0.000)	36	0.984	0.977	0.042 [0.017 - 0.064]	0.027

After trimming, the final 9-item 3-factor model demonstrated an acceptable fit to the data, with all items loading strongly on one of the three factors (minimum = .644, mostly above .7) (see Figure F.3). The Coefficient *H* value indicated good reliability, with values of 0.81 for EWB, 0.74 for SWB, and 0.90 for PWB. Then, the final wellbeing factor model and DASS-21 factor model were retained for SEM analysis. The retained 9-item 3-factor model holds promise as a reliable and valid measure of wellbeing in the specific context of this study. To achieve a satisfactory fit for the wellbeing model with the data, five items were removed from the scale. This observation suggests that the original MHC-SF Scale (Keyes et al., 2012) , which was designed for adults, may require adjustments to better suit young people. Further research is essential to develop social, emotional, and psychological items tailored to MHC-SF Scale that are more appropriate and effective for young individuals (Askell-Williams, 2015).

Figure F.3

Standardised Estimates for the Final Wellbeing Factor Model (9 Items, 3 Factors)



1.6.5 Exploring the Relationship Between Activities and Wellbeing Scores

To enhance research depth, the researcher explored potential connections between activities, such as school work and exercise, and the recognised components of subjective wellbeing scores, namely Emotional Wellbeing (EWB), Social Wellbeing (SWB), and Psychological Wellbeing (PWB). Pearson correlation coefficients were computed, and the results are presented in Table F.16.

Table F.16

Correlation Coefficients Between Changes in Activities During Lockdown and WB.

Activities	**Pearson Correlation**			
	WB	EWB	SWB	PWB
Schoolwork	0.134, *p*=0.008	0.126, *p*=0.013	0.147, *p*=0.003	0.117, *p*=0.020
Socialising with friends	0.078, *p*=0.120	0.111, *p*=0.028	0.088, *p*=0.081	0.054, *p*=0.284
Playing games (not online)	0.024, *p*=0.629	0.064, *p*=0.204	0.032, *p*=0.531	0.009, *p*=0.857
Playing online games	-0.030, *p*=0.548	-0.001, *p*=0.989	-0.042, *p*=0.407	-0.026, *p*=0.602
Using social media	0.069, *p*=0.169	0.085, *p*=0.093	0.067, *p*=0.185	0.077, *p*=0.129
Surfing the internet	-0.020, *p*=0.694	0.004, *p*=0.940	-0.024, *p*=0.628	-0.017, *p*=0.736
Watching movies, TV, or other	-0.015, *p*=0.770	-0.028, *p*=0.579	-0.018, *p*=0.718	-0.001, *p*=0.980
Exercising	0.109, *p*=0.030	0.107, *p*=0.035	0.105, *p*=0.038	0.118, *p*=0.020

Pearson correlations showed that spending more time on schoolwork positively correlated with subjective wellbeing scores (Pearson Correlation = 0.134, $p = 0.008$), as did exercising (Pearson Correlation = 0.109, $p = 0.030$), indicating that increased engagement in these activities related to higher subjective wellbeing. Further analysis examined changes in time spent on schoolwork and exercises (see Table F.17), revealing that a relatively small proportion of students increased their engagement during the lockdown (21.11% for exercises, 15% for schoolwork).

Table F.17

Distribution of the Respondents by Change in Time Spent for Schoolwork and Exercises

	School work	**Exercise**
Much less than before lockdown	181 (47.01%)	110 (28.57%)
Less than before lock-down	67 (17.40%)	93 (24.16%)
About the same	83 (21.56%)	106 (27.53%)
More than before the lockdown	30 (7.79%)	52 (13.51%)
Much more than before	24 (6.23%)	24 (6.23%)

1.6.6 Exploring the Relationship Between Mental Health, Wellbeing, and Perceived Academic Achievement

Further analysis was conducted to explore the association between mental health indicators, wellbeing categories, and perceived academic achievement with the aim of uncovering specific relationships This analysis involves examining the complex interplay between mental health indicators and perceived academic achievement. Table F.18 presents the average Emotional Wellbeing (EWB), Social Wellbeing (SWB), Psychological Wellbeing (PWB), and overall wellbeing scores alongside depression and anxiety scores, categorized by different levels of perceived academic achievement. Further, statistical differences in academic achievement related to various wellbeing and mental health factor scores were examined using ANOVA analysis, which revealed a statistically significant difference in average achievement scores based on all wellbeing and mental health factor scores, as presented in Table F.18. The effect size, with Eta Squared > 0.14 signifying a "large" effect size in Cohen's (Cohen, 2013) terms, implies a significant impact of mental health and wellbeing on students' perceptions of their academic achievement during the lockdown. This aligns with Cohen's (2013) criteria for a large effect size. Therefore, the observed differences in mental health and wellbeing variables were both statistically significant and practically meaningful.

Table F.18

Average Mental Health and Wellbeing Scores by Perceived Academic Achievement

Achievement	EWB	SWB	PSWB	**WB**	Depression	Anxiety	**Anxiety/Depression**
1.00	-2.766	-3.440	-3.307	**-1.894**	4.084	4.062	**2.169**
2.00	-1.848	-2.434	-2.308	**-1.258**	1.350	1.235	**0.768**
3.00	-0.151	-0.327	-0.228	**-0.146**	-0.081	-0.042	**0.004**
4.00	0.403	0.429	0.309	**0.216**	-0.348	-0.283	**-0.172**
5.00	0.291	0.559	0.495	**0.275**	-0.083	-0.051	**-0.087**
					ANOVA results		
F-statistic	16.920	18.638	17.120	**21.583**	17.489	17.257	**23.230**
p	<0.001	<0.001	<0.001	**<0.001**	<0.001	<0.001	**<0.001**
Eta Squared	0.158	0.171	0.159	**0.193**	0.162	0.161	**0.205**

Students who reported higher levels of wellbeing were more likely to perceive their academic achievement during the lockdown as better. Additionally, the strong negative correlation between depression and anxiety and perceived academic achievement ($r = -0.87$) indicates that as levels of depression and anxiety increase, perceived academic achievement tends to decrease. Therefore, students experiencing higher levels of depression and anxiety were more likely to view their academic achievement during the lockdown as worse. These correlations underscore the complex interplay between mental health and academic success. The robustness of these correlations suggests that, within the limitations of this study, substantial relationships exist between these variables. This quantitative analysis provides valuable insights into the connections between mental health, wellbeing, and perceived academic achievement. However, these correlations indicate associations but not necessarily causations.

In the initial bivariate analysis, as demonstrated by ANOVA and correlation analysis, a significant bivariate correlation was observed between depression, anxiety, and perceived academic achievement. However, in the subsequent multivariate structural equation modelling (SEM) analysis in Chapter 4, which incorporated various other predictors, the direct predictive effect of depression and anxiety on academic achievement was determined to be non-significant. Such disparities between bivariate correlations and multivariate results are not uncommon in quantitative research (Lutz & Eckert, 1994; Shifrer et al., 2011).

1.7 Factors Associated with Achievement During Lockdown

Before integrating the predictor variables into the final structural model, an evaluation was conducted to test the hypotheses that the variables of wellbeing, depression and anxiety, the amount of schoolwork, SES factor score (composed of three indicators in the preliminary investigation, as discussed above), and demographic factors were associated with perceived academic achievement. Specifically, the individual associations between the variables were examined using path analysis and the model's fit to the data was assessed. Only the most significant associations were included in the final model. Including only the most significant variables in the final SEM model leads to a

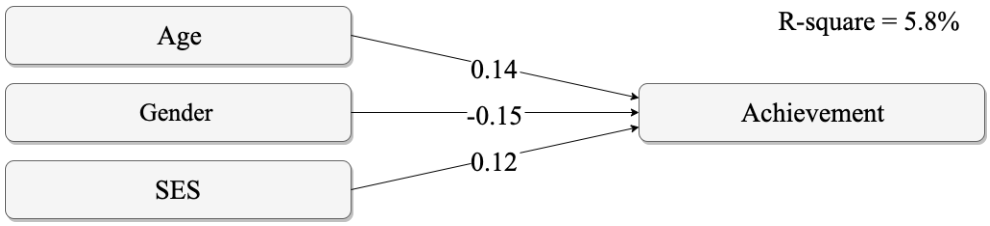
more efficient model, as stated by Kline (2016), which reduces the risk of overfitting and minimises unnecessary complexity. Focusing on the most significant variables also increases the interpretability of the model by highlighting the most important factors related to the dependent variable. Further details and the outcomes of this evaluation, which has influenced the subsequent SEM modelling, are discussed thoroughly in Chapter 4, section 4.2.2.

Therefore, using Mplus Version 8 software, wellbeing, depression and anxiety, the amount of schoolwork, demographic factors including SES factor score, were regressed onto self-perceived academic achievement using the indicators in Figure F.4 (a) to (c). The results showed that SES factor score, gender, and amount of schoolwork were significant predictors of perceived academic achievement.

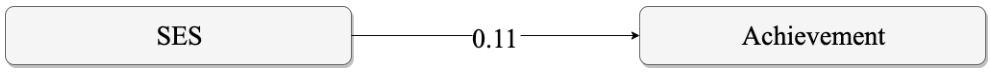
Figure F.4

Predictors of Perceived Academic Achievement

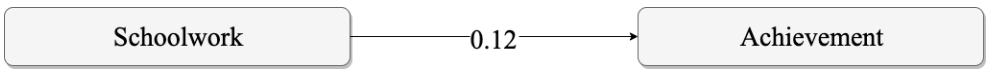
(a) Demographic Factors with Perceived Academic Achievement



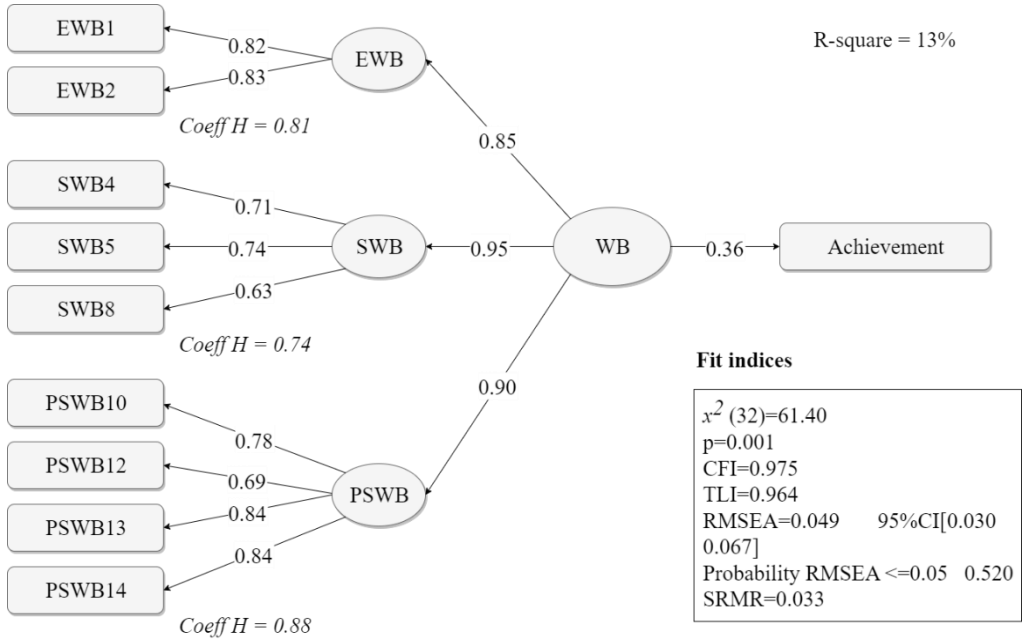
(b) SES Factor Score with Perceived Academic Achievement



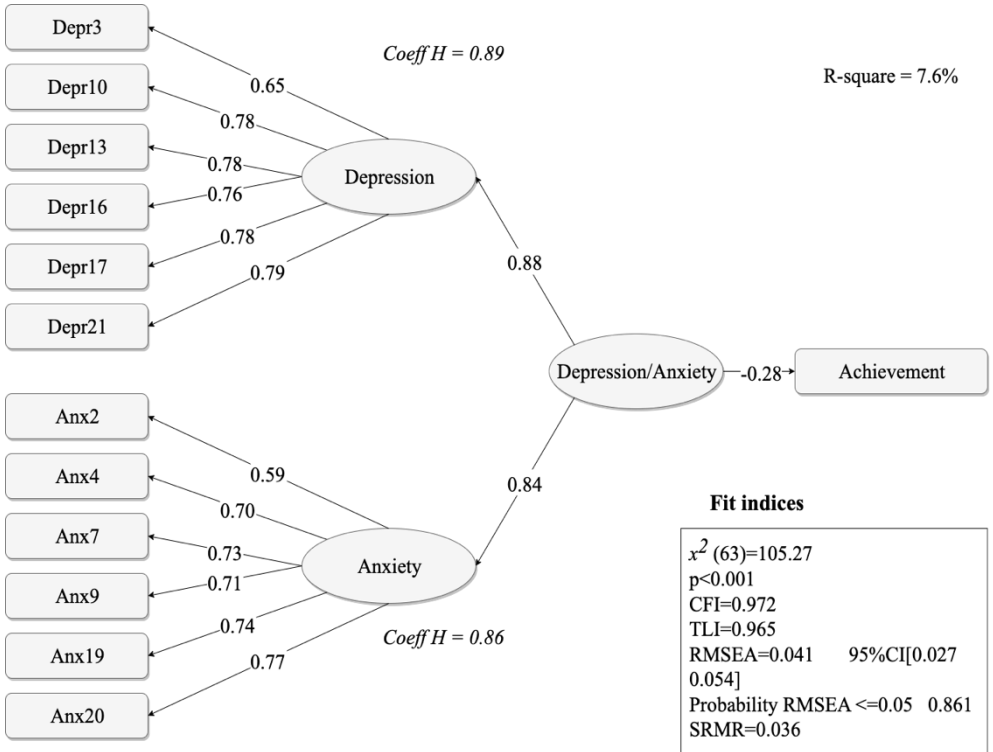
(c) School Work with Perceived Academic Achievement



(d) Wellbeing with Perceived Academic Achievement



(e) Depression and Anxiety with Perceived Academic Achievement



The second order model (see Figure F.4 (e)), which combined depression and anxiety as latent factors, was used because it demonstrated a better fit to the data compared to the model where these constructs were used as separate variables, as indicated by the fit indices as well as good fit indices and *Coefficient H* values, as shown in Figure F.4 (e). Furthermore, path analysis revealed that depression and anxiety separately did not significantly predict perceived academic achievement, whereas the second order model did. Similarly, wellbeing was also found to be a significant predictor of perceived academic achievement, as indicated by good fit indices and *Coefficient H* values shown in Figure F.4 (d).

The final models for wellbeing and depression and anxiety were re-specified prior to conducting the SEM. The measurement models that best fit the data were used, and any poorly fitting items were removed from the models, as described in the CFA section (sections 1.6.3 and 1.6.4) of this chapter.

As shown in Figures F.4 (a) to (e), the latent variable of wellbeing was found to be the strongest predictor of perceived academic achievement, explaining 13% of the variance. The latent variable of depression and anxiety was the next strongest predictor, accounting for 7.6% of the variance in perceived academic achievement. While weaker than these factors, demographics were still a significant predictor of perceived academic achievement, as illustrated in Figure F.1 (a), which explained 5.8% of the variance.

As illustrated in Figure F.1 (d) and (e), regression models of wellbeing and depression and anxiety had RMSEA values less than 0.05, suggesting that they were well-fitting models. All models had lower RMESA 90 C.I. less than 0.1, indicating that the “close-fit” hypothesis for these models was not rejected. Similarly, higher RMSEA 90 C.I. was less than 0.1. This implies that the “poor-fit” hypothesis could be rejected for all these tested models. For all the models, the probability that RMSEA was less than or equal to 0.05 was greater than 50%. These findings

suggest that wellbeing and depression and anxiety factors were significantly associated with self-perceived academic achievement.

Table F.19 presents the standardised coefficients for each independent variable, along with their associated standard errors, z-scores, and p-values.

Table F.19

Standardised Coefficients and Statistical Analysis of Predictors Influencing Perceived Academic Achievement

Variable	Estimate (β)	(SE)	(Est./SE)	p-value
Age	0.149	0.051	2.912	0.004
Gender	-0.154	0.050	-3.093	0.002
SES	0.127	0.050	2.651	0.010
Schoolwork	0.115	0.051	2.263	0.024
Wellbeing	0.360	0.058	6.215	0.000
Depression/Anxiety	-0.28	0.070	-3.945	0.000

1.8 Structural Equation Modelling (SEM)

As outlined in Chapter 2, prior studies (Alabdulkarem et al., 2021; Moussa & Ali, 2022; O'Connor et al., 2020) have indicated a connection between student academic achievement and the significant variables of wellbeing, depression and anxiety, amount of schoolwork, and demographic factors. These factors have been suggested to directly or indirectly impact academic achievement. The survey data collected for this research facilitated a deeper exploration of this premise. To assess this hypothesis, the study employed structural equation modelling (SEM) to examine the relationships between these variables and perceived academic achievement. This analysis led to the formulation of a model proposing that wellbeing, depression and anxiety, and demographic factors collectively contribute to perceived academic achievement.

The significant factors from the simple regression analysis were tested using Mplus. The outcomes of the regression analysis showed the SEM Model to be a well-fitting model. However, the CFI and TLI values were slightly below the recommended threshold of 0.95, which Hu and Bentler (1999) suggest corresponds to a good fit of the model.

This slight deviation can be attributed to the complex nature and larger structure of the model, which included a greater number of factors and items. As noted by Cheung & Rensvold (2002) and Hair et al., (2010), such models may exhibit less optimal CFI and TLI values due to the exclusion of theoretically insignificant factor loadings and residual correlations. However, in concordance with Klein (2016), the obtained CFI and TLI values remain above 0.9, which is considered indicative of a good model fit. It's widely accepted that TLI and CFI values greater than 0.90 signify "good fit", and those above 0.95 symbolise "excellent" fit (Hu & Bentler, 1999; Montoya & Edwards, 2021) .Despite falling slightly short of the "excellent fit" mark, the determined CFI and TLI values are still acceptable, and this conclusion is further reinforced by the (RMSEA) probability which is less than 0.05. Taken together, these various indicators provide confidence that the model is satisfactorily robust. The analysis further involved the generation of factor scores for socioeconomic status (SES). This was performed considering Klein's (2016) possible reasons explaining the slightly lower CFI and TLI values. The final model, which had 25 observed variables, (n = 401, CFI = 0.940, TLI = 0.931, RMSEA = 0.043), was deemed to have an acceptable model fit given the sample size and model complexity. Accordingly, this adjusted model was used to address the research questions posited in the current study, and the derived analysis is discussed in the ensuing results section.

1.9 Summary

This appendix presents key findings from preliminary analyses. Cases with over 50% missing data were removed, and FIML addressed missing data. Spearman Correlation Coefficients showed no substantial multicollinearity among SES variables. A factor score for SES was generated from a latent construct obtained from the saturated model. This factor score was subsequently integrated as an observed variable within the final SEM, created a parsimonious model while retaining essential SES information. ANOVA analysis revealed significant differences in academic achievement based on schoolwork, age and gender, justifying their inclusion in the SEM model.

Multinomial Logistic Regression (MNLR) supported the significance of wellbeing as a predictor of self-perceived academic achievement, aligning with SEM results. This consistency supports the decision to treat subjective academic achievement as continuous in SEM due to its strong explanatory capacity. In the CFA analysis, minor adjustments were made to improve the measurement of depression, anxiety, and stress in the DASS-21 scale. The stress factor was excluded due to fitting issues and symptom overlap. Two items were removed from the DASS-21, resulting in a 2-factor model for depression and anxiety. Similar adjustments were made for the MHC-SF scale, involving removal of five items. The path analysis revealed significant predictors of academic achievement, including SES, age, gender, and the amount of schoolwork. Both wellbeing and the second-order model of depression and anxiety were found to significantly influence academic outcomes.

Appendix E: Copy of the inputs (syntax) and outputs (results) of all models

```
...\model no sinblings  _final_model_with_ses_as_continuous_from_factor_score_n_sibl_re
Mplus VERSION 8.4
MUTHEN & MUTHEN
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INPUT INSTRUCTIONS

     TITLE: path analysis final model
     DATA:
     ! enter the name of the data set
     FILE IS Data8_MPlus.csv;
     VARIABLE:
     ! enter the names of the variables in the data set
        NAMES ARE
      ID A  BB  Q9_1    Anx2    Dep3    Anx4    Q9_5    Q9_6    Anx7
        Q9_8    Anx9    Dep10   Q9_11   Q9_12   Dep13   Q9_14   Q9_15   Dep16
        Dep17   Q9_18   Anx19   Anx20   Dep21   Q11_1   Q11_2   Q11_3   Q11_4
            Q11_5   Q11_6   Q11_7   Q11_8   Q11_9   Q11_10  Q11_11  Q11_12
                Q11_13  Q11c    text    video_ch    socmedia    phone   hangouts    oth
er
                    sch_work    Q11e_2  Q11e_3  Q11e_4  Q11e_5  Q11e_6  Q11e_7
                        Q11e_8  EWB1    EWB2    Q13_3   SWB4    SWB5    Q13_6
        Q13_7   SWB8    Q13_9   PsWB10  Q13_11  PsWB12  PsWB13
          PsWB14    Q13_15  achiev  Q15 Q16 Q17 Q18_1   Q18_2   Q18_3
          Q18_4 Q18_5   Q18_6   Q18_7   Q18_8   Q18_9   Q18_10
          Q18_11    Q20 age Q22 Q23 Q25 St_ID   Sch_ID
          com_text  com_voic
          par_ed    fath_ed2    f2_ed2  f2_ed3  f2_ed4
          moth_ed2  m2_ed2  m2_ed3  m2_ed4
          incm  inc2    inc3    inc4
          gender_d soc_com4 n_sibl  ord_sibl n_sibl2 SES;

     MISSING ARE ALL (77,88,99,9999) ;
     USEVARIABLES ARE
        achiev
        EWB1
     EWB2
     !Q13_3
     SWB4
     SWB5
     !Q13_6
     !Q13_7
     SWB8
     !Q13_9
     PsWB10
     !Q13_11
     PsWB12
     PsWB13
     PsWB14
          Anx2
     Anx4
     Anx7
     Anx9
     !Q9_15
     Anx19
     Anx20
     Dep3
    ! Q9_5
    Dep10
     Dep13
      Dep16
      Dep17
      Dep21
     ! n_sibl2
      gender_d
      age
        ! video_ch
      ! socmedia
       !   hangouts

Page: 1
```

```
          sch_work
        !  text
                !   incm
     !fath_ed2
    ! moth_ed2
  !incm
  SES
     ;

    analysis:
    estimator = MLR;
   ! PARAMETERIZATION=THETA
     MODEL:
     !----------------------------------------
     ! Wellbeing
     !------------------------------------------------
     !Emotional Well-being - 1 2 3
     EWB by
      EWB1*
     EWB2*
      !Q13_3
      ;
     !Social Well-being - 4 5 6 7 8
     SWB by
     SWB4*
     SWB5*
     !Q13_6
     !Q13_7
     SWB8*;
     !Psychological Well-being - 9 10 11 12 13 14
     PsWB by
     !Q13_9
     PsWB10*
     !Q13_11
     PsWB12*
     PsWB13*
     PsWB14*;
     EWB@1;
    SWB@1;
    PsWB@1;
     WB by
    EWB*
    SWB*
    PsWB*
    ;
    WB@1;
      !-----------------------------------------------------
      ! depression
      !-----------------------------------------------------
      depr by
     Dep3*
    ! Q9_5
    Dep10*
     Dep13*
      Dep16*
      Dep17*
      Dep21*;

  depr@1;
     !-----------------------------------------------------
          !Anxiety factor - 2 4 7 9 15 19 20
     Anx by
     Anx2*
     Anx4*
     Anx7*
     Anx9*
     !Q9_15
     Anx19*
```

```
    Anx20*;

  anx@1;
  Anx_Depr  by
  depr*
  anx*;
  Anx_Depr@1;
  ! well being
  WB with Anx_Depr*;
  !------------------------------
  ! SES by
  ! fath_ed2*
  ! moth_ed2*
  ! incm*;
   !  SES@1
  !Anx_Depr  on   hangouts socmedia;
  achiev on Anx_Depr WB
                   SES
  sch_work  gender_d  age; !text  video_ch  socmedia n_sibl2 ;


    !---
    EWB1
     EWB2
     !Q13_3
     SWB4
     SWB5
     !Q13_6
     !Q13_7
     SWB8
     !Q13_9
     PsWB10
     !Q13_11
     PsWB12
     PsWB13
     PsWB14
         achiev
         Anx2
     Anx4
     Anx7
     Anx9
     !Q9_15
     Anx19
     Anx20
     Dep3
    ! Q9_5
    Dep10
     Dep13
      Dep16
      Dep17
      Dep21
    !  n_sibl2
      gender_d
      age
     ! text
     !    video_ch
      ! socmedia
      !    hangouts
          sch_work
            !       incm

    !fath_ed2
   ! moth_ed2
   ! incm;
   SES;
        !  MODEL INDIRECT:
    ! achiev IND socmedia;
    ! achiev IND hangouts;
```

```
     Output: stdyx;
     Mod (5);
  !   SAVEDATA:
  !file = factorscore_all_factors_from_final_SEM.csv;
  !  save = fscores;


INPUT READING TERMINATED NORMALLY


path analysis final model

SUMMARY OF ANALYSIS

Number of groups                                                 1
Number of observations                                         401

Number of dependent variables                                   22
Number of independent variables                                  4
Number of continuous latent variables                            7

Observed dependent variables

  Continuous
   ACHIEV      EWB1        EWB2        SWB4        SWB5        SWB8
   PSWB10      PSWB12      PSWB13      PSWB14      ANX2        ANX4
   ANX7        ANX9        ANX19       ANX20       DEP3        DEP10
   DEP13       DEP16       DEP17       DEP21

Observed independent variables
   GENDER_D    AGE         SCH_WORK    SES

Continuous latent variables
   EWB         SWB         PSWB        WB          DEPR        ANX
   ANX_DEPR


Estimator                                                      MLR
Information matrix                                        OBSERVED
Maximum number of iterations                                  1000
Convergence criterion                                    0.500D-04
Maximum number of steepest descent iterations                   20
Maximum number of iterations for H1                           2000
Convergence criterion for H1                             0.100D-03

Input data file(s)
  Data8_MPlus.csv

Input data format  FREE


SUMMARY OF DATA

     Number of missing data patterns            18


COVARIANCE COVERAGE OF DATA

Minimum covariance coverage value   0.100


     PROPORTION OF DATA PRESENT


           Covariance Coverage
```

	ACHIEV	EWB1	EWB2	SWB4	SWB5
ACHIEV	0.913				
EWB1	0.910	0.963			
EWB2	0.910	0.963	0.963		
SWB4	0.908	0.960	0.960	0.960	
SWB5	0.905	0.958	0.958	0.958	0.958
SWB8	0.908	0.960	0.960	0.960	0.958
PSWB10	0.908	0.960	0.960	0.960	0.958
PSWB12	0.905	0.955	0.955	0.955	0.953
PSWB13	0.908	0.958	0.958	0.958	0.955
PSWB14	0.908	0.958	0.958	0.958	0.955
ANX2	0.908	0.958	0.958	0.955	0.955
ANX4	0.913	0.963	0.963	0.960	0.958
ANX7	0.905	0.955	0.955	0.953	0.953
ANX9	0.905	0.955	0.955	0.953	0.953
ANX19	0.903	0.950	0.950	0.948	0.948
ANX20	0.908	0.958	0.958	0.955	0.953
DEP3	0.913	0.963	0.963	0.960	0.958
DEP10	0.905	0.955	0.955	0.953	0.953
DEP13	0.903	0.950	0.950	0.948	0.948
DEP16	0.905	0.953	0.953	0.950	0.950
DEP17	0.905	0.953	0.953	0.950	0.950
DEP21	0.905	0.955	0.955	0.953	0.953
GENDER_D	0.898	0.898	0.898	0.895	0.893
AGE	0.895	0.895	0.895	0.893	0.890
SCH_WORK	0.908	0.960	0.960	0.958	0.955
SES	0.903	0.903	0.903	0.900	0.898

Covariance Coverage

	SWB8	PSWB10	PSWB12	PSWB13	PSWB14
SWB8	0.960				
PSWB10	0.960	0.960			
PSWB12	0.955	0.955	0.955		
PSWB13	0.958	0.958	0.955	0.958	
PSWB14	0.958	0.958	0.955	0.958	0.958
ANX2	0.955	0.955	0.950	0.953	0.953
ANX4	0.960	0.960	0.955	0.958	0.958
ANX7	0.953	0.953	0.948	0.950	0.950
ANX9	0.953	0.953	0.948	0.950	0.950
ANX19	0.948	0.948	0.945	0.948	0.948
ANX20	0.955	0.955	0.950	0.953	0.953
DEP3	0.960	0.960	0.955	0.958	0.958
DEP10	0.953	0.953	0.948	0.950	0.950
DEP13	0.948	0.948	0.948	0.948	0.948
DEP16	0.950	0.950	0.948	0.950	0.950
DEP17	0.950	0.950	0.948	0.950	0.950
DEP21	0.953	0.953	0.948	0.950	0.950
GENDER_D	0.895	0.895	0.893	0.895	0.895
AGE	0.893	0.893	0.890	0.893	0.893
SCH_WORK	0.958	0.958	0.953	0.955	0.955
SES	0.900	0.900	0.898	0.900	0.900

Covariance Coverage

	ANX2	ANX4	ANX7	ANX9	ANX19
ANX2	0.993				
ANX4	0.993	0.998			
ANX7	0.985	0.988	0.988		
ANX9	0.988	0.990	0.988	0.990	
ANX19	0.983	0.985	0.983	0.985	0.985
ANX20	0.988	0.993	0.988	0.990	0.985
DEP3	0.993	0.998	0.988	0.990	0.985
DEP10	0.988	0.990	0.988	0.990	0.985
DEP13	0.983	0.985	0.983	0.985	0.983

DEP16	0.985	0.988	0.985	0.988	0.985
DEP17	0.983	0.985	0.985	0.985	0.983
DEP21	0.988	0.990	0.988	0.990	0.985
GENDER_D	0.893	0.898	0.890	0.890	0.888
AGE	0.890	0.895	0.888	0.888	0.885
SCH_WORK	0.970	0.975	0.965	0.968	0.963
SES	0.898	0.903	0.895	0.895	0.895

Covariance Coverage

	ANX20	DEP3	DEP10	DEP13	DEP16
ANX20	0.993				
DEP3	0.993	0.998			
DEP10	0.990	0.990	0.990		
DEP13	0.985	0.985	0.985	0.985	
DEP16	0.988	0.988	0.988	0.985	0.988
DEP17	0.985	0.985	0.985	0.983	0.985
DEP21	0.990	0.990	0.990	0.985	0.988
GENDER_D	0.893	0.898	0.890	0.888	0.890
AGE	0.890	0.895	0.888	0.885	0.888
SCH_WORK	0.970	0.975	0.968	0.963	0.965
SES	0.898	0.903	0.895	0.893	0.895

Covariance Coverage

	DEP17	DEP21	GENDER_D	AGE	SCH_WORK
DEP17	0.985				
DEP21	0.985	0.993			
GENDER_D	0.890	0.890	0.898		
AGE	0.888	0.888	0.883	0.895	
SCH_WORK	0.963	0.970	0.895	0.895	0.978
SES	0.895	0.895	0.890	0.888	0.900

Covariance Coverage

	SES
SES	0.903

UNIVARIATE SAMPLE STATISTICS

UNIVARIATE HIGHER-ORDER MOMENT DESCRIPTIVE STATISTICS

Variable/ Sample Size	Mean/ Variance	Skewness/ Kurtosis	Minimum/ Maximum	% with Min/Max	20%/60%	Percentiles 40%/80%	Median
ACHIEV	3.776	-0.464	1.000	2.19%	3.000	3.000	4.000
366.000	1.103	-0.539	5.000	30.87%	4.000	5.000	
EWB1	4.073	-0.512	1.000	7.51%	3.000	4.000	4.000
386.000	2.280	-0.717	6.000	19.43%	5.000	5.000	
EWB2	4.225	-0.646	1.000	6.99%	3.000	4.000	5.000
386.000	2.268	-0.599	6.000	22.02%	5.000	6.000	
SWB4	3.574	-0.023	1.000	15.32%	2.000	3.000	4.000
385.000	2.972	-1.303	6.000	18.70%	4.000	5.000	

...\model no sinblings _final_model_with_ses_as_continuous_from_factor_score_n_sibl_re

0							
	SWB5	4.117	-0.527	1.000	9.11%	3.000	4.00
0	5.000						
	384.000	2.593	-0.901	6.000	23.70%	5.000	6.00
0							
	SWB8	3.945	-0.339	1.000	10.65%	2.000	4.00
0	4.000						
	385.000	2.711	-1.071	6.000	22.86%	5.000	6.00
0							
	PSWB10	4.314	-0.628	1.000	7.01%	3.000	4.00
0	5.000						
	385.000	2.548	-0.805	6.000	30.65%	5.000	6.00
0							
	PSWB12	4.783	-1.233	1.000	6.27%	4.000	5.00
0	5.000						
	383.000	2.232	0.513	6.000	43.86%	6.000	6.00
0							
	PSWB13	4.432	-0.763	1.000	6.25%	3.000	4.00
0	5.000						
	384.000	2.334	-0.456	6.000	32.03%	5.000	6.00
0							
	PSWB14	4.172	-0.438	1.000	5.99%	3.000	4.00
0	4.000						
	384.000	2.439	-0.947	6.000	26.82%	5.000	6.00
0							
	ANX2	1.585	1.168	1.000	60.30%	1.000	1.00
0	1.000						
	398.000	0.670	0.310	4.000	2.51%	1.000	2.00
0							
	ANX4	1.498	1.541	1.000	65.75%	1.000	1.00
0	1.000						
	400.000	0.625	1.576	4.000	3.25%	1.000	2.00
0							
	ANX7	1.331	2.281	1.000	75.25%	1.000	1.00
0	1.000						
	396.000	0.439	5.234	4.000	2.53%	1.000	2.00
0							
	ANX9	1.708	0.972	1.000	52.39%	1.000	1.00
0	1.000						
	397.000	0.751	-0.043	4.000	4.03%	2.000	2.00
0							
	ANX19	1.456	1.708	1.000	66.58%	1.000	1.00
0	1.000						
	395.000	0.552	2.480	4.000	3.04%	1.000	2.00
0							
	ANX20	1.636	1.203	1.000	54.02%	1.000	1.00
0	1.000						
	398.000	0.664	0.815	4.000	4.02%	2.000	2.00
0							
	DEP3	1.587	1.374	1.000	61.00%	1.000	1.00
0	1.000						
	400.000	0.737	0.976	4.000	5.00%	1.000	2.00
0							
	DEP10	1.519	1.515	1.000	64.48%	1.000	1.00
0	1.000						
	397.000	0.653	1.496	4.000	3.78%	1.000	2.00
0							
	DEP13	1.537	1.436	1.000	62.78%	1.000	1.00
0	1.000						
	395.000	0.649	1.273	4.000	3.54%	1.000	2.00
0							
	DEP16	1.616	1.303	1.000	58.33%	1.000	1.00
0	1.000						
	396.000	0.737	0.838	4.000	5.05%	2.000	2.00
0							
	DEP17	1.370	2.031	1.000	75.95%	1.000	1.00
0	1.000						
	395.000	0.547	3.312	4.000	2.78%	1.000	2.00

```
0
     DEP21                  1.575       1.504       1.000   63.57%       1.000      1.00
0      1.000
            398.000         0.802       1.246       4.000    6.78%       1.000      2.00
0
     GENDER_D               0.492       0.033       0.000   50.83%       0.000      0.00
0      0.000
            360.000         0.250      -1.999       1.000   49.17%       1.000      1.00
0
     AGE                   14.699       0.724      10.000    0.28%      14.000     14.00
0     15.000
            359.000         2.316       0.489      18.000   11.14%      15.000     15.00
0
     SCH_WORK               2.082       0.853       1.000   47.45%       1.000      1.00
0      2.000
            392.000         1.549      -0.370       5.000    6.12%       2.000      3.00
0
     SES                    0.001      -0.346      -2.017    0.55%      -0.852      0.25
3      0.283
            362.000         0.962      -0.467       1.477    3.59%       0.312      0.33
1

THE MODEL ESTIMATION TERMINATED NORMALLY


MODEL FIT INFORMATION

Number of Free Parameters                       99

Loglikelihood

          H0 Value                      -12707.099
          H0 Scaling Correction Factor       1.3168
            for MLR
          H1 Value                      -12415.639
          H1 Scaling Correction Factor       1.2262
            for MLR

Information Criteria

          Akaike (AIC)                   25612.199
          Bayesian (BIC)                 26007.601
          Sample-Size Adjusted BIC       25693.466
            (n* = (n + 2) / 24)

Chi-Square Test of Model Fit

          Value                            488.219*
          Degrees of Freedom                  278
          P-Value                          0.0000
          Scaling Correction Factor        1.1940
            for MLR

*   The chi-square value for MLM, MLMV, MLR, ULSMV, WLSM and WLSMV cannot be used
    for chi-square difference testing in the regular way.  MLM, MLR and WLSM
    chi-square difference testing is described on the Mplus website.  MLMV, WLSMV,
    and ULSMV difference testing is done using the DIFFTEST option.

RMSEA (Root Mean Square Error Of Approximation)

          Estimate                         0.043
          90 Percent C.I.                  0.037  0.050
          Probability RMSEA <= .05         0.957

CFI/TLI
```

CFI	0.940
TLI	0.931

Chi-Square Test of Model Fit for the Baseline Model

Value	3807.245
Degrees of Freedom	319
P-Value	0.0000

SRMR (Standardized Root Mean Square Residual)

Value	0.047

MODEL RESULTS

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
EWB BY				
EWB1	0.615	0.099	6.234	0.000
EWB2	0.620	0.102	6.092	0.000
SWB BY				
SWB4	0.455	0.119	3.829	0.000
SWB5	0.450	0.116	3.875	0.000
SWB8	0.394	0.090	4.366	0.000
PSWB BY				
PSWB10	0.527	0.090	5.840	0.000
PSWB12	0.435	0.080	5.462	0.000
PSWB13	0.539	0.096	5.617	0.000
PSWB14	0.554	0.096	5.766	0.000
DEPR BY				
DEP3	0.243	0.054	4.538	0.000
DEP10	0.274	0.058	4.703	0.000
DEP13	0.274	0.058	4.717	0.000
DEP16	0.282	0.061	4.604	0.000
DEP17	0.249	0.056	4.450	0.000
DEP21	0.306	0.069	4.428	0.000
ANX BY				
ANX2	0.282	0.046	6.099	0.000
ANX4	0.321	0.053	6.033	0.000
ANX7	0.279	0.041	6.734	0.000
ANX9	0.358	0.050	7.128	0.000
ANX19	0.319	0.050	6.414	0.000
ANX20	0.364	0.053	6.933	0.000
WB BY				
EWB	1.758	0.346	5.079	0.000
SWB	2.458	0.673	3.653	0.000
PSWB	2.144	0.429	4.998	0.000
ANX_DEPR BY				
DEPR	2.072	0.553	3.745	0.000
ANX	1.393	0.292	4.774	0.000
ACHIEV ON				
ANX_DEPR	-0.115	0.095	-1.206	0.228
WB	0.272	0.085	3.187	0.001
ACHIEV ON				
SES	0.130	0.052	2.495	0.013
SCH_WORK	0.060	0.043	1.405	0.160
GENDER_D	-0.236	0.101	-2.342	0.019

AGE	0.072	0.038	1.889	0.059
WB WITH				
ANX_DEPR	-0.598	0.053	-11.262	0.000
GENDER_D WITH				
WB	-0.064	0.029	-2.237	0.025
ANX_DEPR	0.027	0.030	0.891	0.373
AGE WITH				
WB	0.128	0.100	1.277	0.202
ANX_DEPR	-0.204	0.095	-2.139	0.032
SCH_WORK WITH				
WB	0.187	0.071	2.620	0.009
ANX_DEPR	-0.018	0.078	-0.228	0.819
SES WITH				
WB	0.039	0.060	0.659	0.510
ANX_DEPR	0.049	0.061	0.804	0.422
AGE WITH				
GENDER_D	-0.002	0.041	-0.043	0.966
SCH_WORK WITH				
GENDER_D	-0.028	0.033	-0.842	0.400
AGE	0.280	0.114	2.455	0.014
SES WITH				
GENDER_D	-0.012	0.026	-0.466	0.641
AGE	-0.211	0.086	-2.463	0.014
SCH_WORK	-0.097	0.072	-1.352	0.176
Means				
GENDER_D	0.488	0.026	18.472	0.000
AGE	14.718	0.082	178.918	0.000
SCH_WORK	2.082	0.063	33.127	0.000
SES	-0.002	0.052	-0.040	0.968
Intercepts				
ACHIEV	2.728	0.569	4.797	0.000
EWB1	4.081	0.077	53.077	0.000
EWB2	4.234	0.077	55.236	0.000
SWB4	3.581	0.088	40.692	0.000
SWB5	4.119	0.082	50.123	0.000
SWB8	3.952	0.084	47.083	0.000
PSWB10	4.321	0.081	53.200	0.000
PSWB12	4.789	0.076	62.948	0.000
PSWB13	4.442	0.078	57.098	0.000
PSWB14	4.182	0.079	52.616	0.000
ANX2	1.586	0.041	38.687	0.000
ANX4	1.497	0.039	37.907	0.000
ANX7	1.330	0.033	40.117	0.000
ANX9	1.709	0.043	39.336	0.000
ANX19	1.455	0.037	39.091	0.000
ANX20	1.636	0.041	40.089	0.000
DEP3	1.587	0.043	36.988	0.000
DEP10	1.520	0.041	37.469	0.000
DEP13	1.539	0.041	37.976	0.000
DEP16	1.616	0.043	37.512	0.000
DEP17	1.369	0.037	36.918	0.000
DEP21	1.578	0.045	35.075	0.000
Variances				
GENDER_D	0.250	0.000	535.244	0.000
AGE	2.318	0.193	12.008	0.000
SCH_WORK	1.549	0.100	15.507	0.000
SES	0.962	0.063	15.367	0.000

WB	1.000	0.000	999.000	999.000
ANX_DEPR	1.000	0.000	999.000	999.000
Residual Variances				
ACHIEV	0.909	0.055	16.510	0.000
EWB1	0.738	0.114	6.450	0.000
EWB2	0.697	0.109	6.408	0.000
SWB4	1.515	0.175	8.667	0.000
SWB5	1.171	0.158	7.410	0.000
SWB8	1.620	0.174	9.288	0.000
PSWB10	0.992	0.109	9.079	0.000
PSWB12	1.175	0.120	9.797	0.000
PSWB13	0.711	0.108	6.555	0.000
PSWB14	0.725	0.096	7.560	0.000
ANX2	0.436	0.039	11.072	0.000
ANX4	0.321	0.036	8.969	0.000
ANX7	0.208	0.024	8.714	0.000
ANX9	0.373	0.039	9.584	0.000
ANX19	0.251	0.029	8.748	0.000
ANX20	0.274	0.029	9.556	0.000
DEP3	0.423	0.055	7.717	0.000
DEP10	0.255	0.033	7.790	0.000
DEP13	0.251	0.036	6.953	0.000
DEP16	0.313	0.036	8.722	0.000
DEP17	0.217	0.028	7.834	0.000
DEP21	0.305	0.044	6.997	0.000
EWB	1.000	0.000	999.000	999.000
SWB	1.000	0.000	999.000	999.000
PSWB	1.000	0.000	999.000	999.000
DEPR	1.000	0.000	999.000	999.000
ANX	1.000	0.000	999.000	999.000

STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
EWB BY				
EWB1	0.823	0.030	27.485	0.000
EWB2	0.833	0.028	29.262	0.000
SWB BY				
SWB4	0.700	0.041	17.008	0.000
SWB5	0.741	0.039	18.971	0.000
SWB8	0.635	0.046	13.747	0.000
PSWB BY				
PSWB10	0.782	0.028	27.712	0.000
PSWB12	0.688	0.037	18.424	0.000
PSWB13	0.834	0.027	30.642	0.000
PSWB14	0.838	0.025	33.800	0.000
DEPR BY				
DEP3	0.652	0.044	14.859	0.000
DEP10	0.780	0.033	23.374	0.000
DEP13	0.782	0.033	23.999	0.000
DEP16	0.758	0.034	22.049	0.000
DEP17	0.776	0.034	23.025	0.000
DEP21	0.787	0.034	23.119	0.000
ANX BY				
ANX2	0.591	0.040	14.691	0.000
ANX4	0.697	0.042	16.483	0.000
ANX7	0.724	0.036	20.085	0.000

ANX9	0.709	0.035	20.047	0.000
ANX19	0.738	0.030	24.567	0.000
ANX20	0.766	0.031	24.902	0.000
WB BY				
EWB	0.869	0.042	20.769	0.000
SWB	0.926	0.036	25.730	0.000
PSWB	0.906	0.032	27.979	0.000
ANX_DEPR BY				
DEPR	0.901	0.045	19.821	0.000
ANX	0.812	0.058	14.043	0.000
ACHIEV ON				
ANX_DEPR	-0.110	0.090	-1.222	0.222
WB	0.259	0.081	3.199	0.001
ACHIEV ON				
SES	0.121	0.048	2.532	0.011
SCH_WORK	0.071	0.051	1.406	0.160
GENDER_D	-0.112	0.047	-2.368	0.018
AGE	0.104	0.055	1.887	0.059
WB WITH				
ANX_DEPR	-0.598	0.053	-11.262	0.000
GENDER_D WITH				
WB	-0.128	0.057	-2.237	0.025
ANX_DEPR	0.054	0.061	0.891	0.373
AGE WITH				
WB	0.084	0.066	1.278	0.201
ANX_DEPR	-0.134	0.062	-2.153	0.031
SCH_WORK WITH				
WB	0.150	0.056	2.681	0.007
ANX_DEPR	-0.014	0.062	-0.229	0.819
SES WITH				
WB	0.040	0.061	0.658	0.510
ANX_DEPR	0.050	0.062	0.807	0.420
AGE WITH				
GENDER_D	-0.002	0.054	-0.043	0.966
SCH_WORK WITH				
GENDER_D	-0.045	0.053	-0.845	0.398
AGE	0.148	0.059	2.519	0.012
SES WITH				
GENDER_D	-0.025	0.053	-0.466	0.641
AGE	-0.141	0.055	-2.563	0.010
SCH_WORK	-0.080	0.058	-1.366	0.172
Means				
GENDER_D	0.976	0.052	18.771	0.000
AGE	9.666	0.380	25.407	0.000
SCH_WORK	1.672	0.043	39.192	0.000
SES	-0.002	0.053	-0.040	0.968
Intercepts				
ACHIEV	2.595	0.556	4.663	0.000
EWB1	2.701	0.110	24.448	0.000
EWB2	2.810	0.120	23.387	0.000
SWB4	2.077	0.069	30.302	0.000
SWB5	2.555	0.104	24.616	0.000
SWB8	2.399	0.090	26.527	0.000
PSWB10	2.706	0.112	24.063	0.000

PSWB12	3.204	0.172	18.624	0.000
PSWB13	2.907	0.130	22.405	0.000
PSWB14	2.677	0.103	26.071	0.000
ANX2	1.939	0.048	40.699	0.000
ANX4	1.894	0.057	33.354	0.000
ANX7	2.010	0.097	20.731	0.000
ANX9	1.973	0.050	39.633	0.000
ANX19	1.961	0.070	27.865	0.000
ANX20	2.009	0.060	33.642	0.000
DEP3	1.848	0.050	36.927	0.000
DEP10	1.883	0.056	33.706	0.000
DEP13	1.911	0.056	34.170	0.000
DEP16	1.885	0.052	36.426	0.000
DEP17	1.852	0.067	27.461	0.000
DEP21	1.762	0.047	37.828	0.000
Variances				
GENDER_D	1.000	0.000	999.000	999.000
AGE	1.000	0.000	999.000	999.000
SCH_WORK	1.000	0.000	999.000	999.000
SES	1.000	0.000	999.000	999.000
WB	1.000	0.000	999.000	999.000
ANX_DEPR	1.000	0.000	999.000	999.000
Residual Variances				
ACHIEV	0.822	0.045	18.078	0.000
EWB1	0.323	0.049	6.570	0.000
EWB2	0.307	0.047	6.477	0.000
SWB4	0.510	0.058	8.838	0.000
SWB5	0.451	0.058	7.779	0.000
SWB8	0.597	0.059	10.196	0.000
PSWB10	0.389	0.044	8.829	0.000
PSWB12	0.526	0.051	10.232	0.000
PSWB13	0.304	0.045	6.704	0.000
PSWB14	0.297	0.042	7.144	0.000
ANX2	0.651	0.048	13.690	0.000
ANX4	0.515	0.059	8.735	0.000
ANX7	0.475	0.052	9.104	0.000
ANX9	0.498	0.050	9.942	0.000
ANX19	0.456	0.044	10.294	0.000
ANX20	0.413	0.047	8.745	0.000
DEP3	0.574	0.057	10.021	0.000
DEP10	0.391	0.052	7.506	0.000
DEP13	0.388	0.051	7.598	0.000
DEP16	0.426	0.052	8.185	0.000
DEP17	0.397	0.052	7.582	0.000
DEP21	0.380	0.054	7.083	0.000
EWB	0.245	0.073	3.362	0.001
SWB	0.142	0.067	2.129	0.033
PSWB	0.179	0.059	3.043	0.002
DEPR	0.189	0.082	2.308	0.021
ANX	0.340	0.094	3.617	0.000

R-SQUARE

Observed Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
ACHIEV	0.178	0.045	3.913	0.000
EWB1	0.677	0.049	13.743	0.000
EWB2	0.693	0.047	14.631	0.000
SWB4	0.490	0.058	8.504	0.000
SWB5	0.549	0.058	9.486	0.000
SWB8	0.403	0.059	6.874	0.000
PSWB10	0.611	0.044	13.856	0.000
PSWB12	0.474	0.051	9.212	0.000
PSWB13	0.696	0.045	15.321	0.000

PSWB14	0.703	0.042	16.900	0.000
ANX2	0.349	0.048	7.345	0.000
ANX4	0.485	0.059	8.241	0.000
ANX7	0.525	0.052	10.043	0.000
ANX9	0.502	0.050	10.023	0.000
ANX19	0.544	0.044	12.283	0.000
ANX20	0.587	0.047	12.451	0.000
DEP3	0.426	0.057	7.429	0.000
DEP10	0.609	0.052	11.687	0.000
DEP13	0.612	0.051	11.999	0.000
DEP16	0.574	0.052	11.024	0.000
DEP17	0.603	0.052	11.513	0.000
DEP21	0.620	0.054	11.559	0.000

Latent Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
EWB	0.755	0.073	10.384	0.000
SWB	0.858	0.067	12.865	0.000
PSWB	0.821	0.059	13.990	0.000
DEPR	0.811	0.082	9.911	0.000
ANX	0.660	0.094	7.021	0.000

QUALITY OF NUMERICAL RESULTS

Condition Number for the Information Matrix 0.399E-04
(ratio of smallest to largest eigenvalue)

MODEL MODIFICATION INDICES

NOTE: Modification indices for direct effects of observed dependent variables regressed on covariates may not be included. To include these, request MODINDICES (ALL).

Minimum M.I. value for printing the modification index 5.000

		M.I.	E.P.C.	Std E.P.C.	StdYX E.P.C.
BY Statements					
EWB	BY PSWB13	5.801	-0.161	-0.326	-0.213
SWB	BY PSWB13	5.656	-0.163	-0.433	-0.283
SWB	BY ANX19	5.635	0.036	0.095	0.128
PSWB	BY SWB8	13.258	0.391	0.926	0.562
WB	BY SWB8	6.467	1.479	1.479	0.898
WB	BY PSWB13	9.368	-0.837	-0.837	-0.548
WB	BY ANX19	5.091	0.091	0.091	0.123
DEPR	BY SWB4	20.183	0.194	0.446	0.258
DEPR	BY PSWB12	5.149	-0.079	-0.182	-0.122
DEPR	BY ANX2	8.209	-0.084	-0.194	-0.237
ANX	BY EWB1	7.897	-0.122	-0.210	-0.139
ANX	BY SWB4	11.053	0.187	0.320	0.186
ANX	BY DEP10	6.067	0.081	0.139	0.172
ANX	BY DEP21	7.505	-0.099	-0.170	-0.190
ANX_DEPR	BY EWB1	5.842	-0.216	-0.216	-0.143
ANX_DEPR	BY SWB4	18.846	0.495	0.495	0.287
ANX_DEPR	BY ANX2	8.146	-0.283	-0.283	-0.346
ANX_DEPR	BY DEP21	6.412	-0.430	-0.430	-0.480
ON/BY Statements					
EWB	ON PSWB /				
PSWB	BY EWB	8.487	-0.836	-0.978	-0.978
EWB	ON DEPR /				
DEPR	BY EWB	11.209	-0.181	-0.206	-0.206
EWB	ON ANX /				

ANX	BY EWB	6.955	-0.184	-0.156	-0.156
EWB	ON ANX_DEPR /				
ANX_DEPR	BY EWB	11.038	-0.479	-0.237	-0.237
SWB	ON PSWB /				
PSWB	BY SWB	6.167	1.012	0.902	0.902
SWB	ON DEPR /				
DEPR	BY SWB	11.527	0.252	0.218	0.218
SWB	ON ANX /				
ANX	BY SWB	17.109	0.395	0.256	0.256
SWB	ON ANX_DEPR /				
ANX_DEPR	BY SWB	15.728	0.785	0.296	0.296
PSWB	ON EWB /				
EWB	BY PSWB	8.485	-0.836	-0.714	-0.714
PSWB	ON SWB /				
SWB	BY PSWB	6.160	1.012	1.135	1.135
WB	ON EWB /				
EWB	BY WB	9.313	-0.445	-0.899	-0.899
WB	ON SWB /				
SWB	BY WB	11.797	0.688	1.825	1.825
ANX_DEPR	ON EWB /				
EWB	BY ANX_DEPR	11.132	-0.309	-0.625	-0.625
ANX_DEPR	ON SWB /				
SWB	BY ANX_DEPR	14.024	0.476	1.263	1.263
ON Statements					
DEPR	ON SCH_WORK	7.293	0.266	0.116	0.144
ANX	ON SCH_WORK	7.292	-0.179	-0.104	-0.130
WITH Statements					
SWB5	WITH SWB4	6.459	0.313	0.313	0.235
PSWB12	WITH SWB4	5.694	-0.204	-0.204	-0.153
PSWB14	WITH PSWB12	14.331	-0.259	-0.259	-0.281
PSWB14	WITH PSWB13	9.840	0.217	0.217	0.302
ANX4	WITH PSWB10	5.000	-0.082	-0.082	-0.144
ANX7	WITH SWB8	5.728	0.088	0.088	0.152
ANX9	WITH PSWB12	32.985	0.239	0.239	0.360
ANX9	WITH PSWB14	17.256	-0.148	-0.148	-0.284
ANX19	WITH ANX9	5.037	-0.047	-0.047	-0.154
ANX20	WITH ANX7	8.101	-0.049	-0.049	-0.205
DEP10	WITH SWB4	11.236	0.137	0.137	0.221
DEP10	WITH ANX19	7.649	0.045	0.045	0.179
DEP13	WITH ANX7	8.274	-0.042	-0.042	-0.185
DEP16	WITH DEP3	7.491	0.063	0.063	0.173
DEP17	WITH PSWB12	9.897	-0.101	-0.101	-0.200
DEP17	WITH PSWB14	7.042	0.073	0.073	0.184
DEP17	WITH ANX7	10.393	0.044	0.044	0.207
DEP21	WITH ANX2	6.040	-0.055	-0.055	-0.152
DEP21	WITH DEP3	7.223	-0.063	-0.063	-0.174
DEP21	WITH DEP10	7.215	-0.053	-0.053	-0.191
DEP21	WITH DEP13	8.471	0.057	0.057	0.207
DEP21	WITH DEP17	15.247	0.071	0.071	0.276
PSWB	WITH EWB	8.483	-0.836	-0.836	-0.836
PSWB	WITH SWB	6.163	1.012	1.012	1.012
WB	WITH EWB	9.312	-0.445	-0.445	-0.445
WB	WITH SWB	11.798	0.688	0.688	0.688
DEPR	WITH EWB	5.341	-0.378	-0.378	-0.378
ANX	WITH SWB	6.981	0.455	0.455	0.455
ANX_DEPR	WITH EWB	11.134	-0.309	-0.309	-0.309
ANX_DEPR	WITH SWB	14.018	0.476	0.476	0.476
SCH_WORK	WITH DEPR	6.392	0.381	0.381	0.306
SCH_WORK	WITH ANX	6.392	-0.256	-0.256	-0.206

DIAGRAM INFORMATION

Use View Diagram under the Diagram menu in the Mplus Editor to view the diagram.

If running Mplus from the Mplus Diagrammer, the diagram opens automatically.

Diagram output
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rom_factor_score_n_sibl_removed.d

Beginning Time: 15:09:30
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MUTHEN & MUTHEN
3463 Stoner Ave.
Los Angeles, CA 90066

Tel: (310) 391-9971
Fax: (310) 391-8971
Web: www.StatModel.com
Support: Support@StatModel.com