Evaluating the Healthy Lifestyle Behaviours of Nursing Students in Kuwait

by

Abdullah Hasan *(GDipANP, BSN, AssocDegN.)*

A submitted thesis in partial fulfillment of the requirements for a degree in Masters of Nursing in Coursework and Research

College of Nursing and Health Sciences

Flinders University

December 2018

CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

ADN	Associate Degree in Nursing
ANOVA	Analysis of Variance
BSchN	Bachelor in School Nursing
BSN	Bachelor of Science in Nursing
CASP	Critical Appraisal Skills Programme
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CoN	College of Nursing
GPA	Grade Point Average
HLSUS	Healthy Lifestyle Scale for University Students
JBI	Joanna Briggs Institute
MEDLINE	Medical Literature Analysis and Retrieval System Online
PAAET	Authority for Applied Education and Training
PBNP	Post-Basic Nursing Programme
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
SPSS	Statistical Packages for Social Science
UK	United Kingdom

SUMMARY

Research has shown that undergraduate university students engage in risky behaviours that affect both their current and future health status (Can et al., 2008; El Ansari et al., 2011; El Ansari et al., 2014). This study aims to evaluate health-related behaviours among undergraduate students of the College of Nursing (CoN) in Kuwait, using the Healthy Lifestyle Scale for University Students (HLSUS) tool specifically for university students. The objectives are: (1) describe the demographic data of students at the CoN, (2) assess gender differences of the overall score of HLSUS at CoN, and (3) evaluate factors associated with health-related behaviours of CoN students, using HLSUS.

A cross-sectional descriptive survey was conducted from April and June 2018 using the HLSUS tool to assess the demographic data of nursing students at CoN and the HLSUS score to determine any association between them. The Cronbach's alpha of the HLSUS tool was 0.81 making the tool reliable. Ethics approval was granted by the Flinders University Social and Behavioural Research Ethics Committee (SBREC) (Approval #7872), as well as the ethics committee of CoN in Kuwait.

Out of a total of 269 respondents, 257 completed the questionnaire. The response rate in this study was 33.67%. Although there were more female students enrolled at CoN than male students, the number of male participants was approximate to the females which implies that male students in CoN were more interested in participating in questionnaires. According to HLSUS the academic year was the only category to have significance on healthy lifestyle behaviours.

The majority of undergraduate nursing students in Kuwait practiced healthy lifestyle behaviours, with gender differences and sociodemographic influences on some HLSUS subscales. However, this study highlighted the importance of developing university facilities and amenities to include on-campus gym facilities, a smoke-free campus, healthy food choices, stress management programmes and mental health counselling services. It is recommended that policy makers and stakeholders be aware of the needs of Kuwaiti university students regarding adapting a healthy lifestyle. Further research is also needed to detect barriers and monitor trends that influence the health-related behaviours among university students. The results of this study will be useful for designing health promotion programs and planning more effective inventions in university settings.

DECLARATION

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Date 5/12/2018

ACKNOWLEDGEMENTS

I'd like to dedicate this thesis to my parents (may they rest in peace) for knowing that I was smart enough to become the person I never thought I could be. For always standing by my side and pushing me to be a better son. For teaching me how to become a strong, independent and responsible man that would make them proud.

I'd like to thank the following people that were important in supporting me throughout my Masters' journey:

First, to my wonderful wife, for her patience and unconditional love and support. For being with me to successfully complete this degree that seemed like a never-ending program. You have always encouraged me and helped me see that the best is yet to come.

To my friends, Ahmed Aldraiweesh, Abdulrahman Alkandari, Khalid Almutairi, and Al-Ahmadi diwaniya, I miss you guys. Thanks for reminding me why I'm doing this, and for your calls when I felt overwhelmed.

To my siblings Yousef, Jassim, Zainab and Abdulaziz, I'm almost done and on my way home.

My parents (in-law), Mohammed and Carmen, thank you for your guidance and support in new waters; you know your daughter better than me.

My Adelaidean family Masoud, Abolfazl, Farzad and Ali. I'll always remember our gatherings that we take to pull me away from studies.

I'd also like to thank Pawel Skuza for his time and help in simplifying the data analysis process, which I thought was impossible. Thanks Pawel!

Special thanks to Wendy Abigail for your prompt feedbacks and support when I was going through a difficult period, I took your advice and planted trees for my parents!

And finally, I'd like to express my gratitude to my supervisors Dean Whitehead, Wendy Abigail and Anna Hall for their guidance, support and insight in this research process.

Capstone Editing provided copyediting and proofreading services, according to the guidelines laid out in the university-endorsed national 'Guidelines for Editing Research Theses'.

CHAPTER ONE
INTRODUCTION

1.0 Introduction

In 2013, the World Health Organization (WHO) declared that, over the last few decades, a significant number of global deaths were predominantly lifestyle-related and results of non-communicable diseases (World Health Organization, 2013). In 2016, non-communicable diseases were responsible for 71% of deaths globally and are predicted to be responsible for 73% of deaths by 2020 (WHO, 2016). An increase in obesity in both developed and developing countries has been attributed to economic development and modernisation of countries (Gopalakrishnan, Ganeshkumar, Prakash, & Amalraj, 2012). Mortality and morbidity rates in adults living in developing countries are predominately associated with unhealthy behaviours such as tobacco consumption, alcohol and drug abuse, unprotected sex, poor eating habits and a sedentary lifestyle (Mayosi et al., 2009). Changes in lifestyle, socio-cultural and economic status have accounted for the high prevalence of non-communicable diseases in the past few decades in developing countries (Chenji, 2017).

There is evidence that deaths related to unhealthy lifestyles can be reduced and prevented by improving daily life habits (Hu, Liu, & Willett, 2011; Rankins, Reddy, Timoshanko, & Dunbar, 2010; WHO, 2016). For example, healthy lifestyle behaviours can decrease the onset of chronic diseases and overall mortality rates (Hu et al., 2011). In addition, Patay, Patton, Parker, Fahey, and Sinclair (2015) found that health-related behaviours can boost the quality of an individual's life by reducing the risk of physical and mental diseases. Wald, Muennig, O'Connell, and Garber (2014) also found positive effects of a healthy lifestyle on general health. According to van Rensburg and Surujlal (2013), maintaining a healthy lifestyle includes regular exercise, balanced dietary intake, emotional well-being and regular physical check-ups. The adoption of Western culture and lifestyles, during the last century, has led to an increase in sedentary lifestyles in many countries. Several studies identified that unhealthy daily behaviours have a significant impact on morbidity and premature mortality (Fortin et al., 2014; Petersen et al., 2015; Sasazuki et al., 2012). Conversely, maintaining a healthy lifestyle can decrease disease occurrence and mortality rate (Hu et al., 2011; Nöthlings, Ford, Kroeger, & Boeing, 2010; Rankins et al., 2010). Unhealthy lifestyle behaviours among adults are strongly linked to the practice of poor health behaviours during childhood (Landsberg et al., 2010). While it is difficult to change unhealthy behaviours in adults,

some behaviours can be avoided if they are identified at an early stage (Gall, Jamrozik, Blizzard, Dwyer, & Venn, 2009). A healthy lifestyle is more easily adopted in early life, with widespread adoption resulting in a healthier and more productive adult population (Wald et al., 2014). Accordingly, this study focuses on undergraduate university students as the target population. This study identifies the importance of identifying health-related behaviours in nursing students in Kuwait. This chapter covers the background, the significance of this project, and the aims and objectives of the research study. It also defines the key terms used in this study and provides an overview of the thesis structure.

1.1 Background

There is an increasing interest by academic researchers regarding lifestyle characteristics and healthy behaviours of undergraduate students at universities in the last few decades (El Ansari, Oskrochi, & Haghgoo, 2014). Young adults (aged 18–35 years) in universities and their communities are expected to work in high-level professions and participate in decision-making that affects the future of societies (Wang et al., 2013). They are considered a valuable resource and a social foundation for the future (El Ansari, 2014). Therefore, attention and resources should be directed at maximising health and well-being during their years of education and training in higher education institutions (El Ansari, Khalil, & Stock, 2014). On average, the age of undergraduate students in most countries ranges from 18 to 21 years (Kwan, Cairney, Faulkner, & Pullenayegum, 2012). For many individuals, the transition period from high school to university is considered the most challenging because during this period they face new challenges, including lifestyle responsibilities, having to plan academic goals as well as having more control over health and lifestyle choices (Kwan et al., 2012; Pullman et al., 2009). This transitional phase is a developmental stage where the personality and lifestyles of young adults are being shaped; such a period of change provides a unique chance to develop new habits, including a healthy lifestyle (Dong, Xiao-hui, & Xian-bo, 2012). Therefore, an evaluation of students' health lifestyle choices is necessary to contribute to the body of knowledge in this important area of health with the aim of improving future students' health habits.

Studies indicate that the undergraduate period of university students can be associated with health risks for many students (Pullman et al., 2009), with consequences for physical and emotional health as well as social life (Wang et al., 2013). The risks appear associated with a number of stressors intrinsic to the experience of being in higher education. Study workload,

parental pressure, social stress and financial obligations have been found to be a common burden and source of stress among undergraduate students (Brown & Applegate, 2012). Additionally, the marital status of undergraduate university students has also been identified as a stressor, especially among undergraduate students in Arabian countries where young adults carry the burden of being students and parents at the same time (Al-Isa, Campbell, Desapriya, & Wijesinghe, 2011). These risks can result in unhealthy activities such as excessive tobacco consumption and alcohol abuse that are associated with acute and chronic conditions among undergraduates (van Rensburg & Surujlal, 2013).

Some studies have observed that first-year university students undergo significant weight gain because of a decrease in physical activity and increase in unhealthy dietary intake (Vella-Zarb & Elgar, 2009). There is also evidence to support the notion that health-related behaviours while undertaking undergraduate studies is associated with academic achievement. For example, studies have found that achieving high Grade Point Average (GPA) and maintaining a healthy routine are important to a successful career in the future (Deliens, Clarys, De Bourdeaudhuij, & Deforche, 2013; El Ansari et al., 2011; Peltzer & Pengpid, 2014). Several factors that were found to be associated with academic performance included the level of physical activity, nutrition habits, substance abuse, quality of sleep and psychological well-being (El Ansari et al., 2011; El Ansari, Vallentin-Holbech, & Stock, 2014; Flueckiger, Lieb, Meyer, & Mata, 2014). A review conducted by Dewald, Meijer, Oort, Kerkhof, and Bögels (2010) found a positive relationship between the quality and duration of sleep and better GPA scores. In addition, complying with the recommended levels of physical activity and adopting good nutrition habits improved academic outcomes (Lambourne & Tomporowski, 2010; Logi Kristjánsson, Dóra Sigfúsdóttir, & Allegrante, 2010). Conversely, Singleton (2007) reported a negative association between alcohol abuse and academic achievement. In addition, Deliens et al. (2013) found a negative correlation between smoking and academic performance.

1.2 Kuwait's Health Context

Kuwait is a small country situated in the Arabian Peninsula, between Iraq and Saudi Arabia, and is covered by the driest and least hospitable desert in the world (Ochsenwald, Crystal, Anthony, & Sadek, 2018) (see Figure 1, p.4). In 2017, Kuwait's population was approximately 4.5 million, with 98.3% living in urban areas and 1.7% in rural areas (Ochsenwald et al., 2018). Its official language is Arabic, and its official religion is Islam. After the discovery of oil in the 1960s, Kuwait's wealth

increased and its population became accustomed to a life of luxury, relying on domestic help in the household and cars for transportation (Al-Sejari, 2017).

Figure 1: Kuwait (Ochsenwald et al., 2018)

Such wealth resulted in a sedentary lifestyle with low levels of physical activity and a high-calorie diet, which contributed to poor health of the Kuwaiti population (Al-Sejari, 2017; Al-Isa, Campbell, & Desapriya, 2013; Zaghloul et al., 2013) and increased prevalence of non-communicable diseases, such as diabetes, hypertension and obesity (Haskin, 2013). Indeed, Kuwait has a high incidence of comorbidities in its population (Angrisani et al., 2017) that is attributable to a sedentary lifestyle (Al-Baho, Al-Naar, Al-Shuaib, Panicker, & Gaber, 2016) and poor nutritional habits (Zaghloul et al., 2013). According to Alfadhli, Al-Mazeedi, Bodner, and Dean (2017), the practices and beliefs of the Kuwaiti population are inconsistent with the recommended guidelines for health standards. Furthermore, the poor health status of the overall Kuwaiti population exposes its younger generation to increased health risks (Al-Baho et al., 2016; Behbehani, 2014; Zaghloul et al., 2013). Peltzer and Pengpid (2014) reported that approximately 42% of undergraduate students in Kuwait are overweight and obese, which they attribute to low physical activity and poor nutritional habits. Some intervention strategies proposed to counter these issues include improving dietary intake and encouraging exercise to promote a change in the Kuwaiti lifestyle (Behbehani, 2014), and emphasising the need to develop health education programmes to prevent further spread of non-communicable diseases, such as cardiovascular diseases, hypertension and diabetes in Kuwait (Al-Isa et al., 2013).

The limited number of health educators in Kuwait further hinders general health awareness in the Kuwaiti population (Al-Kandari & Lew, 2005). Gaps in knowledge were identified in research conducted in 2005 on the lifestyle behaviours of nursing students in Kuwait (Al-Kandari & Vidal, 2007). Relatedly, there is a known lack of lecturers specialising in community health nursing in the country, which further highlights the need and importance of understanding this issue to achieve a healthier generation (Al-Kandari & Lew, 2005; Al-Kandari & Vidal, 2007).

1.2.1 Health and Welfare Systems

The Kuwaiti government provides its population with a comprehensive social welfare scheme. Financial support is offered to those in need and/or living with a disability, and there is a highly developed healthcare system with provision of free medical care (Ochsenwald et al., 2018). As at 2016, the average life expectancy in Kuwait at birth was 76.6 years for males and 79.4 years for females (Ochsenwald et al., 2018). However, the country is in the top ten countries with the highest prevalence of obesity worldwide, with approximately 80% of its population overweight and 46% of its population obese (Haskin, 2013). Other chronic diseases found in the Kuwaiti population were 25.3% hypertension, 17.8% smoking related disorders and 11% cancer (International Diabetes Fedration, 2013). Kuwait is ranked ninth in the world and second in the Middle East and North Africa region in its prevalence of diabetes (Nakhi & Eltayeb, 2018).

1.2.2 Education System

Education is compulsory for Kuwaitis aged 6 to 14 years. It is free and includes uniforms, books, transportation and meals (Al-Sejari, 2017; Ochsenwald et al., 2018). As at 2015, the rate of literacy of Kuwaitis over the age of 15 is 96.5% among males and 95.8% among females (Ochsenwald et al., 2018).

1.3 Statement of the Research Issue

Research has shown that undergraduate university students engage in risky behaviours that affect both their current and future health status (Can et al., 2008; El Ansari et al., 2011; El Ansari et al., 2014). In 2008, the Healthy Lifestyle Scale for University Students (HLSUS) specifically for university students was developed based on Nola Pender's Health Promotion Model (Dong et al., 2012). This tool is a self-reported questionnaire that investigates different dimensions of lifestyle using 38 scaled questions, grouped into eight sections namely, regular behaviour, exercise behaviour, health risk behaviour, nutrition behaviour, social support, health responsibility, life

appreciation and stress management. Despite the established validity of this scale (Dong et al., 2012), and its translation into different languages (e.g., a Persian version of the scale was used by Aminisani et al. (2016), an Arabic version does not currently exist. In this study, the HLSUS will be translated and modified into an Arabic version and utilised to evaluate the health-related behaviours of undergraduate students at the College of Nursing (CoN) in the Public Authority for Applied Education and Training (PAAET), Kuwait.

This study aims to evaluate health-related behaviours among undergraduate students of CoN, using the HLSUS tool. This research aims to build on to the existing body of knowledge contributed by other authors in Kuwait to promote improved well-being in the Kuwaiti population (Al-Kandari & Vidal, 2007; Behbehani, 2014; Al-Isa et al., 2013).

In the current literature, there have been investigations of health-related behaviours of university students in several countries. The purpose of this study is to build upon this knowledge by contributing a specific Kuwaiti perspective on the issue through recruiting a representative undergraduate student sample from the CoN from one institution. The study will provide baseline information for regular lifestyle assessments, improve understanding of undergraduate student health needs and inform the development of comprehensive health promotion programmes.

1.4 Research Question and Objectives

The aim of this research is to evaluate health-related behaviours among undergraduate students at the CoN in Kuwait by addressing the following questions:

- What are the health-related behaviours of nursing students in Kuwait?
- How do nursing students in Kuwait rate on the Healthy Lifestyle Scale for University Students (HLSUS)?

The objectives of the research are to:

- describe the demographic data of students at the CoN.
- assess gender differences of the overall score of HLSUS at CoN.
- evaluate factors associated with health-related behaviours of CoN students, using HLSUS.

1.5 Personal Justification for Study

The researcher is an associate lecturer at the CoN, PAAET, in Kuwait, specialising in community health nursing who has completed several nursing degrees from Arab and Western countries between 2002 and 2014. These include an Associate Degree in Nursing (Kuwait), a Baccalaureate Degree in Nursing (Jordan) and a Postgraduate Diploma in Advanced Practice Nursing (United Kingdom (UK). Being a nursing student in these different educational environments has provided a unique perspective on the issue of health behaviours during tertiary study. As a student, the researcher has been able to witness firsthand changes in physical activity, dietary and sleeping habits, and subsequent academic performance that occurred. For example, while living in Arab countries, the researcher had a high-fat and high-calorie diet and poor sleeping patterns. This contrasted with the healthier habits that the researcher adopted in the UK where a balanced nutritional diet was maintained with better sleep quality.

Some factors can contribute to differences in lifestyle behaviour among undergraduates, such as university facilities (with the provision of a gym and provision of outdoor sporting activities); type of food (fresh versus pre-prepared food); psychological support systems (such as social workers and friends); differences in weather conditions (such as extreme cold and extreme hot). The researcher directly observed that changes in physical activity, nutrition and sleeping habits had a direct effect on the researcher's academic grades and physical and psychological well-being. According to Deliens et al. (2013) and Wald et al. (2014), university students' academic performance improves when their physical and psychological health is stable.

1.6 Structure of this Thesis

This thesis consists of six chapters. Chapter 1 introduces background of the study, Kuwait's health context, statement of research issue, the research question and objectives, and the researcher's personal justification for his interest in the field. Chapter 2 presents an integrative review of the studies on health-related behaviours of undergraduate students, and highlights knowledge gaps in the current literature. Chapter 3 details the research methodology and methods used to conduct this study. Chapter 4 presents the results of the study. Chapter 5 situates the results of the current study in the extant literature. Chapter 6 details the conclusions of the study and discusses the study's limitations, implications and recommendations.

1.7 Summary

This chapter outlines the health issues experienced by university students. It also describes the health context in Kuwait and states the research issue. The aims and objectives of, and justification for the study have been outlined. Chapter 2 presents a review of the literature on health-related behaviours of undergraduate students in order to discover knowledge gaps and methodological parameters.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

The previous chapter stated the background of the health issues experienced by university students in Kuwait, the research's aims and objectives, and the justification of this research. This chapter reviews peer-reviewed literature relevant to the health-related behaviours of university students in Kuwait. The search strategy process used to identify relevant studies is discussed followed by analysis and critical appraisal of the included studies. The articles were then assessed to generate categories on the health-related behaviours of undergraduate students globally. The chapter ends with a discussion on the strengths and weaknesses of the included studies, as well as identifying and addressing gaps in the literature.

2.1 Scope of the Literature

Previous studies, including research limitations and recommendations, that have addressed health-related behaviours of students in Kuwait were identified (Al-Sayegh et al., 2016; Al-Kandari & Vidal, 2007). The studies were all peer-reviewed published in electronic databases in English. The integrative review reveals that various assessment tools and questionnaires are commonly used in this field and the researcher has selected the most suitable scale for this study.

2.2 Search Strategy

An electronic search of online databases was used to obtain up-to-date information. An inclusive search was conducted to identify and explore relevant studies on the Arabian Gulf Region, especially Kuwait. This search led to the formation of the research question and the multiple objectives of this study in order to bridge the gap in the current knowledge. Literature on this research was identified using MEDLINE (Medical Literature Analysis and Retrieval System Online), CINAHL (Cumulative Index to Nursing and Allied Health Literature), SCOPUS and Google Scholar due to the wide range of peer-reviewed articles of multi-disciplinary medical, health and science fields that were related to the topic of interest. An organized search was conducted using the following keywords, *'healthy lifestyle', 'health behaviours', 'health-related behaviours'*, *'health practises', 'health habits', 'lifestyle characteristics', 'lifestyle', 'assessment', 'evaluate', 'student', 'undergraduate', 'university student', 'college student'*. Advanced search options extended the

search by using the keywords, MESH terms and their Boolean logic (Appendix 1). Manual searches of Google Scholar and the reference lists of the selected articles were conducted to identify relevant articles suitable for this review. Inclusion and exclusion criteria were carefully applied to finalise the selection of the relevant articles (see Figure 2).

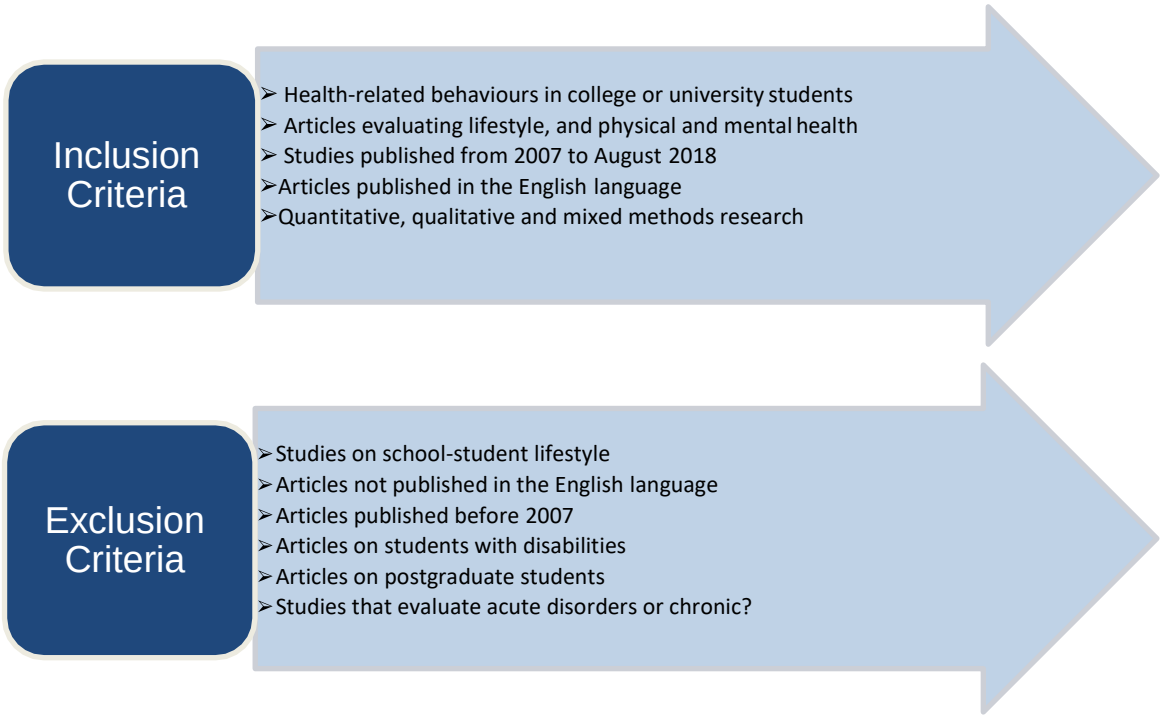


Figure 2: Selection criteria

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) was used to illustrate the number of identified articles. The search generated 201 papers. The number of selected papers was reduced to 190 when limited to articles published in English from 2007–2018. A manual search of the reference lists located nine relevant articles. Sixty-three selected papers were screened by journal title, abstract and full text, when available (see Figure 3, p.11).

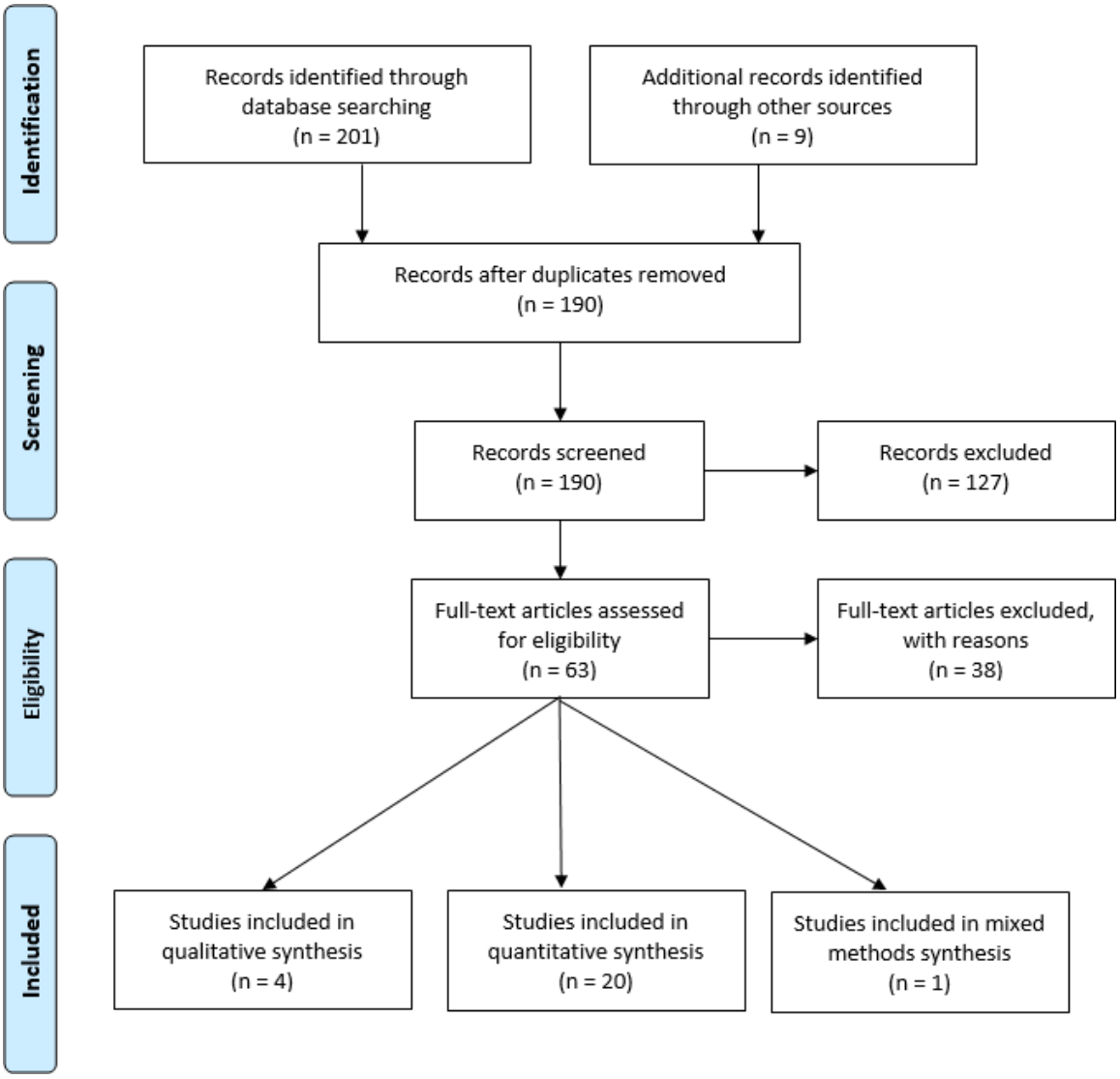


Figure 3: PRISMA flow diagram

Out of 25 selected articles, 20 studies were quantitative, four qualitative and one study was mixed-method. All articles were published in English. The relevant articles focused on Western countries (n = 16), Middle Eastern countries (n = 4), Asian countries (n = 3), African countries (n = 1) and a global study of 26 countries (n = 1). These studies investigated two or more aspects of universities students' lifestyles, as well as physical and mental health. The selected studies' aims, methods, methodologies, participants, results, levels of evidence, limitations and strengths were tabulated (Appendix 2).

2.3 Critical Appraisal of the Articles

The selected articles were analysed and critiqued by using appraisal tools. Several appraisal tools are recognised, such as the Critical Appraisal Skills Programme (CASP) (Critical Appraisal Skills Programme, 2013) and the Joanna Briggs Institute (JBI) appraisal tools (Critical Appraisal Skills Programme, 2013; Joanna Briggs Institute, 2016). The assessment tools were used to identify the strengths and weaknesses of the collected articles in an organised and unbiased manner (Critical Appraisal Skills Programme, 2013). The CAPS tools were used to evaluate cohort and qualitative articles, whereas the JBI appraisal tool evaluated the cross-sectional articles.

2.3.1 Level of evidence

When assessing published articles, it is crucial to identify validity and reliability factors that could affect the results of the study (Melnyk & Fineout-Overholt, 2011). Accordingly, the selected articles were reviewed to verify the level of evidence using the evidence hierarchy in Polit and Beck (2017). The evidence hierarchy in Polit and Beck (2017) determines the level of evidence in evidence-based nursing practice. It is divided into three levels: level I is the highest form of evidence that includes systematic reviews, level II is the second highest level that is suitable for answering questions on the efficiency of conducting an intervention and level III is the lowest form of evidence that includes quasi-experimental studies (Polit & Beck, 2017). The generated and chosen articles for this literature were reviewed and identified at level II, which sits in the middle range of the evidence hierarchy. The articles were analysed and categorised to provide a guide of their strengths, relevance and quality.

2.4 Categories of Included Articles

Six categories emerged from the 25 articles: physical activity, nutritional behaviours, sleep pattern, stress management, health risk behaviours and financial burden. These categories are discussed below:

2.4.1 Physical activity

Physical activities that students performed at university during their years of study was one of the categories found where students had different levels of activity depending on gender and the number of subjects they were enrolled in. Five studies reported the majority of undergraduates were physically active (Aceijas, Waldhäusl, Lambert, Cassar, & Bello-Corassa, 2017; Al-Sejari, 2017; Al-Kandari & Vidal, 2007; van Rensburg & Surujlal, 2013; Weissman et al., 2016). However, one study found that university students were not engaged in physical activity (Yahia, Wang, Rapley, &

Dey, 2016). Two studies found that male students exercised and were more physically active than female students (Al-Sayegh et al., 2016; El Ansari et al., 2011), another study reported that female students were more active than male students (van Rensburg & Surujlal, 2013). Weissman et al. (2016) reported that students who enrolled in more subjects were less active due to a lack of time. Can et al. (2008) found that nursing students were less active than students in other disciplines. Deliens, Deforche, De Bourdeaudhuij, and Clarys (2015) reported that self-discipline, peer pressure, sport knowledge, stressful periods of time and social support may influence levels of physical activity among university students.

2.4.2 Nutrition behaviour

Nutritional behaviour was frequently assessed to explore students' meal choices and the impact that had on academic performance. Six studies found that undergraduate students made healthy meal choices (Can et al., 2008; Deliens et al., 2013; El Ansari et al., 2011; Peltzer & Pengpid, 2014; Trichopoulou et al., 2014; Yahia et al., 2016). However, three studies found that university students exhibited poor nutritional behaviours (Aceijas et al., 2017; Al-Sayegh et al., 2016; Alkazemi, Zafar, Ebrahim, & Kubow, 2018). Four studies found that female students made healthier meal choices than males (Can et al., 2008; El Ansari et al., 2011; Trichopoulou et al., 2014; Yahia et al., 2016). Two studies found that there was a significant relationship between nutritional behaviours and grade point average (GPA) (Deliens et al., 2013; Peltzer & Pengpid, 2014). Can et al. (2008) noted that nursing students practiced poor nutritional behaviours compared to students in other disciplines, despite their greater knowledge of nutrition. Alkazemi et al. (2018) found that female university students were at risk of disordered eating behaviours. A qualitative study identified that dietary knowledge, examination periods as well as family and friend support (as well as peer pressure) influenced the nutritional behaviours of undergraduate students (Deliens, Clarys, De Bourdeaudhuij, & Deforche, 2014).

2.4.3 Sleep pattern

Sleep patterns of university students were linked to their cognitive abilities. Three studies found that university students obtained enough sleep during their academic years (El Ansari et al., 2011; Flueckiger et al., 2014; Wald et al., 2014). Two studies reported that students complained of limited sleeping hours and sleeping problems (Al-Sayegh et al., 2016; Peltzer & Pengpid, 2014). According to studies by Flueckiger et al. (2014) and Wald et al. (2014), students who had good-quality sleep achieved a better GPA. However, Peltzer and Pengpid (2014) reported that there was

no significant relationship between students receiving adequate sleep and good academic performance.

2.4.4 Stress management

Another factor that was assessed in university students was the ability to cope with a stressful academic environment. Two studies found that students handled stressful situations positively (Al-Sayegh et al., 2016; Guo, Whittemore, & He, 2010). Can et al. (2008) found that university students had poor stress management abilities and that females were better at managing stress than males. Supporting the findings of Can et al. (2008), Al-Sayegh et al. (2016) reported that female university students exhibited more confidence in handling stressful situations. Nelson, Kocos, Lytle, and Perry (2009) reported that poor stress-management skills were exhibited via stress eating.

2.4.5 Health risk behaviours

Risky health behaviours that university students were at risk of developing during their academic years included smoking, drug abuse, excessive alcohol consumption and unsafe sexual practices. Seven studies found that most of the participants were actively involved in risky behaviours (Aceijas et al., 2017; Al-Sayegh et al., 2016; Dawson, Schneider, Fletcher, & Bryden, 2007; Deliens et al., 2013; El Ansari et al., 2011; Tirodimos, Georgouvia, Savvala, Karanika, & Noukari, 2009; van Rensburg & Surujlal, 2013). There were two studies that reported low smoking rates among university students (Al-Sejari, 2017; Can et al., 2008). Four studies found that most students who did smoke tobacco and drank alcohol excessively were male (Al-Sayegh et al., 2016; Dawson et al., 2007; El Ansari et al., 2011; van Rensburg & Surujlal, 2013). However, van Rensburg and Surujlal (2013) reported that female students smoked more tobacco than males. Deliens et al. (2013) claimed that alcohol consumption interfered with the academic performance of university students, as represented in lower GPAs. Interviews of university students revealed that excessive alcohol consumption encouraged sexual activity (Chanakira, O'Cathain, Goyder, & Freeman, 2014). Nelson et al. (2009) found that drinking alcohol during college parties led to an increased caloric intake that negatively affected students' general health.

2.4.6 Financial burden

University students were reported to have received financial support often and several studies had assessed the effects of financial problems. Three studies found that high income was associated with a healthier lifestyle in university students due to receiving parental financial support (Can et

al., 2008; Wang et al., 2013; Wei et al., 2012). El Ansari and Stock (2010) reported that 40 per cent of university students complained of insufficient income. Financial issues identified among undergraduate students was reported as possibly being due to high living costs (Aceijas et al., 2017; Weissman et al., 2016). A Kuwait study found that 10 per cent of university students complained of low monthly income leading to financial problems (Al-Sejari, 2017). Financial burden was reported as a barrier to making healthy food choices for some university students, which limited their meal options and contributed to an unhealthy lifestyle (Nelson et al., 2009). Can et al. (2008) reported that students living in dormitories were able to save money, however these students also had an unhealthy lifestyle because it was not easy for them to adapt to their new lifestyle that needed autonomy.

2.5 Discussion and Critique of the Selected Studies

A review of the literature demonstrated that several factors may affect the general health and lifestyles of university students around the world. These factors include demographic data, sociocultural variables and health-related behaviours.

The literature review highlighted mixed findings on the importance of daily physical activities for university students. Some studies found a strong link between exercise and healthy lifestyle, as confirmed by (Deliens et al., 2015; Hillman, Erickson, & Kramer, 2008; Logi Kristjánsson et al., 2010; Ruthig, Marrone, Hladkyj, & Robinson-Epp, 2011; Wald et al., 2014). Conversely, other studies found that college students faced difficulties in maintaining daily physical activities such as going to the gym or jogging during stressful examination weeks (Can et al., 2008; Deliens et al., 2015; Flueckiger et al., 2014; Weissman et al., 2016). However, these results were produced from descriptive cross-sectional studies that may have captured the lifestyle of university students at a certain period of time which is not representative of their actual overall health-related behaviours.

Another limitation of these studies was that in some cases, data were collected during students' examination periods which may have provided unreliable results (Flueckiger et al., 2014). Only one study employed a mixed-method design to obtain comprehensive data on the health-related behaviours of university students by conducting interviews and collecting surveys (Aceijas et al., 2017). Although mixed-method or qualitative methodology may have provided rich data for the research topic, the present study avoided this method due to time constraints and an inability to collect data abroad.

Many studies discussed the nutritional behaviours of undergraduate students. Deliens et al. (2013) noted that unhealthy nutritional behaviours may contribute to low topic grades. In accordance with the findings of another study, healthy nutritional behaviours during college years can positively affect academic goals (Peltzer & Pengpid, 2014). Studies by Burkhalter and Hillman (2011) and Wald et al. (2014) supported the relationship between healthy nutritional behaviours and academic achievements by finding that regular consumption of recommended daily servings of fruits and vegetables resulted in a higher GPA. Conversely, Al-Kandari and Vidal (2007) found no relationship between adequate nutrition and good grades in their study of students in Kuwait. This may be due to the limitations of their study including small sample size and reporting bias that affected the rigour of their findings. Several studies used small sample sizes that reduced generalisability, such as El Ansari and Stock (2010); Ruthig et al. (2011); Al-Kandari and Vidal (2007); Yahia et al. (2016) and Weissman et al. (2016). Another limitation of most studies was their reliance on convenience sampling, which may be biased due to the voluntarily nature of participation (Al-Sejari, 2017; Alkazemi et al., 2018; Deliens et al., 2013; El Ansari & Stock, 2010; Ruthig et al., 2011; Weissman et al., 2016).

According to the National Health and Medical Research Council (NHMRC), researchers must ensure that participants are safe and anonymous during data collection and must obtain participants' consent prior to collecting data (National Health and Medical Research Council, 2007). However, the literature reviewed revealed that some studies failed to discuss ethical issues (Deliens et al., 2013; Guo et al., 2010; Ruthig et al., 2011; Tirodimos et al., 2009; Weissman et al., 2016). Although Al-Kandari and Vidal (2007) were the first to study the health-related behaviours among nursing students in Kuwait, their study had several limitations. The sample consisted only of associate degree nursing students. Also, the authors mentioned that participants may have given socially desirable answers due to social and peer pressure.

The current study aims to mitigate limitations of past studies by including a larger sample size and utilising a translated version of HLSUS that was designed to suit university students. A larger representative sample is important for generalising findings. This study aims to contribute to a growing body of knowledge in this field and may form the basis for future studies.

2.6 Summary

A comprehensive search was made for studies published between 2007–2018 and generated several categories: physical activities, nutritional behaviours, sleep pattern, stress management,

health risk behaviours and financial burdens on university students' general health and wellbeing. Out of 25 selected articles, 20 studies were quantitative, four qualitative and one mixed method. This review of the literature revealed various weaknesses and strengths of the existing literature. Chapter 3 presents the methodology and methods used to evaluate the health-related behaviours of nursing students in Kuwait.

CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction

The previous chapter presented and critically assessed the peer-reviewed literature surrounding university students' health-related behaviours and possible associated health risks. The included literature highlighted the emerged categories as well as their strengths and weaknesses. This chapter explores the methodology and methods used in this study to evaluate lifestyle behaviours of undergraduate nursing students in Kuwait. The research paradigm, study design, translated tool, data collection method and data analysis strategy are presented. All aspects were given careful consideration to ensure accurate research findings.

3.1 Research Design

A paradigm *"is a world view, a general perspective on the complexities of the world and are often characterised in terms of the ways in which they respond to based philosophical questions, such as what is the nature of reality? (ontology) and what is the relationship between the enquirer and those being studied? (epistemology)"* (Polit & Beck, 2017, p. 9). Quantitative research is a predictable scientific approach based on a framework and theories of human inquiry (Creswell, 2014; Polit & Beck, 2017). Quantitative research is an organised investigation that employs statistics, figures or numbers to describe a phenomenon (Maltby, Williams, McGarry, & Day, 2014). The positivist approach of quantitative research involves objectively reporting the collected data and reporting via statistical analysis (Polit & Beck, 2017). Therefore, a quantitative approach was deemed the most appropriate to answer the research questions and meet the research objectives for the current study.

A research design is the plan that the researcher follows to answer research questions (Hallberg, 2008; Polit & Beck, 2017). A cross-sectional descriptive approach was utilised to meet the aims and objectives of this study (Chapter 1, p. 6). Descriptive studies provide data that can be used to identify the prevalence and rate of a condition at one point in time (Hallberg, 2008). The cross-sectional, descriptive design also enables researchers to explore, describe and investigate variables and the relationships between them (Gerrish & Lathlean, 2015; Maltby et al., 2014; Schneider & Whitehead, 2016). This design method enables researchers to collect data from

groups of individuals that share either a common condition or phenomenon (Polit & Beck, 2017). Description, observation or documentation of a natural phenomenon are considered to be the main purposes of descriptive studies (Polit & Beck, 2017). This approach is efficient for developing a theory or generating a hypothesis for future studies.

Many studies have utilised the cross-sectional study design to evaluate and assess the health and wellbeing of university students worldwide (Aceijas et al., 2017; Al-Sayegh et al., 2016; Al-Sejari, 2017; Al-Kandari & Vidal, 2007; Alkazemi et al., 2018; Can et al., 2008; Dawson et al., 2007; Deliens et al., 2013; Dong et al., 2012; El Ansari & Stock, 2010; El Ansari et al., 2011; Guo et al., 2010; Peltzer et al., 2014; Ruthig et al., 2011; Tirodimos et al., 2009; van Rensburg, Surujlal, & Dhurup, 2011; Wald et al., 2014). By looking at the methodology of the design, these studies were critiqued to ensure the selected design was suitable and appropriate for the current study.

Cross-sectional studies are cost and time-efficient since no follow-up and few resources are required, thus this is a strength of this type of study (Mann, 2003; Polit & Beck, 2017). In cross-sectional studies, the data collection process occurs only once, (Mann, 2003; Polit & Beck, 2017; Schneider & Whitehead, 2016). Cross-sectional studies are also recommended for determining the prevalence of a phenomenon of interest and are especially valuable when identifying possible associations between variables that may present as gaps in the literature (Bonita, Beaglehole, & Kjellström, 2006; Mann, 2003). According to Schneider and Whitehead (2016), cross-sectional study designs provide accurate data when the sample is representative of the required population.

The weaknesses of cross-sectional designs are that findings may be brief and superficial because the data is collected at a single occurrence (Schneider & Whitehead, 2016). Accordingly, this type of study does not allow for trends or variations to be identified. This methodology does not provide an explanation for the findings, nor does it permit cause-and-effect relationships to be conclusively understood (Mann, 2003). As Schneider and Whitehead (2016) have stated, cross- sectional studies require experienced researchers in different areas, such as sampling strategies, questionnaire development and data analysis, to achieve valid and reliable findings. Additionally, sources of bias may appear in cross-sectional studies. Recall bias may appear because data is obtained from participants based on their past experiences and perceptions and because there is a limited capability to verify participants' statements (Bonita et al., 2006). Selection bias may also appear because participants are non-randomised and volunteer to participate in the study (Sanderson, Tatt, & Higgins, 2007; Schneider & Whitehead, 2016). However, as detailed later on in

chapter 5, limitations of this methodology and bias have been acknowledged and reduced as much as possible.

3.2 Research Method

3.2.1 Setting

The current study was conducted at the College of Nursing (CoN) in the Public Authority for Applied Education and Training (PAAET) in Kuwait. There are five colleges and 10 training institutions at PAAET, where students graduate with a bachelor's degree and a higher certificate equivalent to a high-school degree, respectively. The colleges of PAAET are College of Technological Studies, College of Business Studies, College of Basic Education, College of Health Studies and College of Nursing. PAAET has a large number of male and female undergraduate students (n = 35,434), who are enrolled until March 2015 according to the registry office of PAAET (Public Authority for Applied Education and Training, 2017).

3.2.2 Sample

This study adopted convenience sampling to recruit eligible nursing students from the CoN in Kuwait. The total number of undergraduate nursing students enrolled in the CoN until January 2018 was 885 students (n = 502 females, n = 353 males) (PAAET, 2018). Students were aged 18 years and above. They were enrolled in one of four nursing programs: Associate Degree in Nursing (ADN), Bachelor of Science in Nursing (BSN), Post-Basic Nursing Programme (PBNP) and Bachelor in School Nursing (BSchN) (See Figures 4 and 5, p. 21).

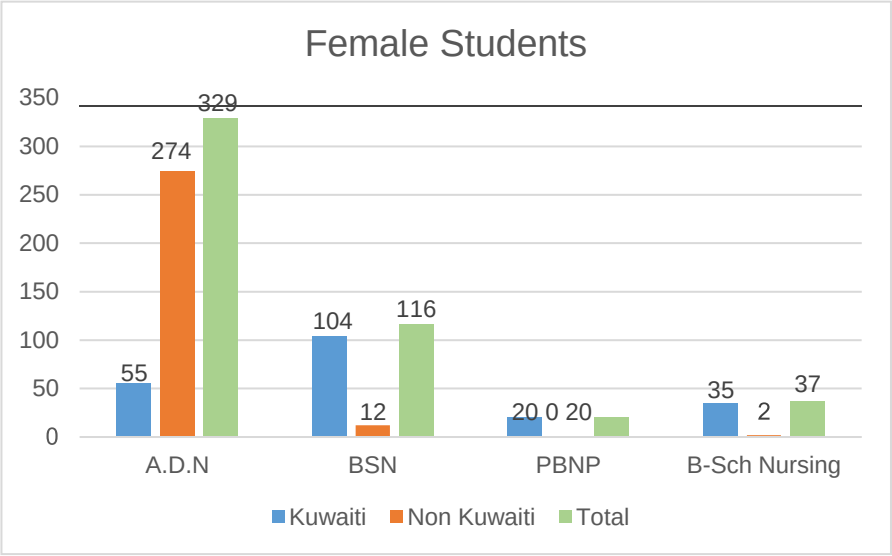


Figure 4: Female students enrolled in CoN

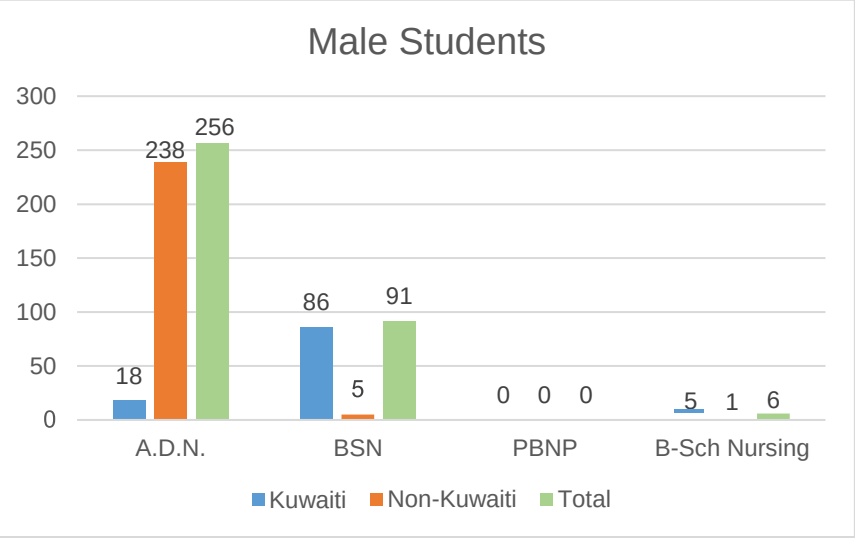


Figure 5: Male students enrolled in CoN

In a quantitative study, a large sample size is essential for generalising findings (Schneider & Whitehead, 2016). Raosoft software was used to calculate the sample size. A sample size of 269 students was recommended to represent the students of the College of Nursing (Raosoft, 2004). The Raosoft software calculates with a 5% margin of error, a confidence interval of 95% and response distribution of 50%. The researcher aimed to obtain 300 completed surveys, higher than the recommended number to allow for incomplete data and to increase generalisability of the population (Norwood, 2010).

3.2.3 Inclusion and exclusion criteria

The targeted population were undergraduate student nurses at CoN in PAAET. Students had to meet inclusion and exclusion criteria to be eligible to participate in the study (see Figure 6).

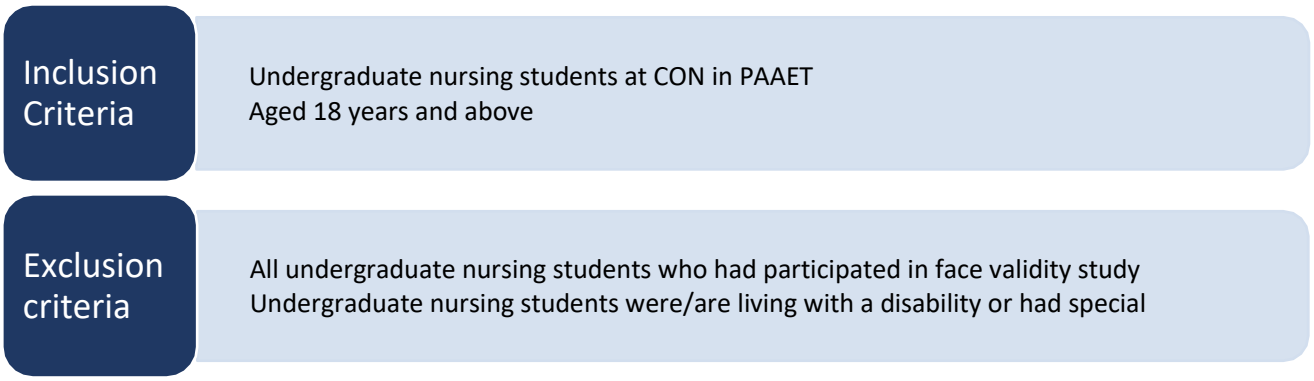


Figure 6: Inclusion and Exclusion Criteria

3.3 Data collection

The questionnaire used for this study was adapted from a study conducted by Dong et al. (2012), specifically the Developing Healthy Lifestyle Scale for University Students (HLSUS) questionnaire (Appendix 3). This questionnaire was developed from Pender's Health Promotion Model, which was originally designed to evaluate influential factors for healthy lifestyles of students in China (Dong, Xing, & Wu, 2013). While several tools are used to measure and assess healthy lifestyles of individuals, the HLSUS was the only one identified in the literature that specifically focused on university students. This scale, which follows, contains 38 self-reported closed-ended questions that are divided into eight sections:

1. Exercise behaviour: four items assess daily physical activity through asking about frequency and intensity of exercises.
2. Regular behaviour: four items investigate regular intervals of nutritional behaviours, sleep patterns, study times and resting times.
3. Health risk behaviour: four items measure the involvement in risky behaviours, such as excessive alcohol intake, smoking and substance abuse. This section also included active-time on computers.
4. Nutrition behaviour: four items evaluate the type of food consumed, including cholesterol, fat, salt, sugar, daily portions of fruits, vegetables and fluid.
5. Health responsibility: six items include personal hygiene and compliance with doctors' advice and treatments.

6. Social support: six items assess social life through asking about interaction with classmates and relatives.
7. Stress management: five items evaluate response to emotional changes and unchangeable factors in life. This section also covers relaxation techniques and leisure activities.
8. Life appreciation: five items investigate learning process, feeling of content, ability to accept and appreciate life and interest in personal development.

Within the current study, the HLSUS scale was modified to fit the aims, objectives and the Kuwaiti context and culture. A demographic data section was added (Appendix 3) and two of the 38 questions (questions 22 and 23) were modified due to the sensitivity of these questions on the Kuwaiti culture and the assumption that respondents would provide false information (Appendix 3).

3.4 Data Collection Process

3.4.1 Recruitment

Following ethics approval from both Flinders University Social Behavioural Research Ethics Committee (Appendix 4) and the CoN ethics committee in Kuwait (Appendix 5), recruitment of participants commenced in March 2018. A letter of introduction was sent to the Dean of the CoN in Kuwait, informing him of the details of the study and of the data collection process (Appendix 6). Following their approval, the letter was emailed to students enrolled in the CoN inviting them to participate in the study. Lecturers at the CoN were also informed of the study to assist in recruiting the target population by encouraging the students to participate. College communication boards, flyers, text messages and the college website were also used for recruitment.

Participants who enquired about the study were provided with an information sheet, provided in Arabic and English (Appendix 7) detailing the aims and objectives of the study, as well as details of the researcher, participants' rights and confidentiality measures, to ensure they could make an informed decision prior to participating in the study. Baruch and Holtom (2008) noted that using emails, websites and text messages obtains higher response rates than traditional methods, therefore reminders via different methods were sent to possible participants in this study. Reminders were sent every two weeks, using different approaches (detailed below) to maximise the response rate (Parahoo, 2014). The first reminder appeared on the college communication

boards using colourful posters. The second reminder was sent via a text message to the personal contact numbers of participants by the administration office staff, and the final two reminders were sent to students' emails. The reminders were sent every two to three weeks over a three months period from the initial requirement.

3.4.2 Data collection

Data was collected from April–June 2018. A link to the online survey was provided in the invitation letter and consent was implied upon completion of the questionnaires. Students were free to complete the questionnaires at a time and place of their choosing to ensure their anonymity and confidentiality. Invitations to the targeted population were sent to 885 undergraduate nursing students. Raosoft software was used to calculate the power analysis of a representative sample (Raosoft, 2004). The recommended sample size by the software was n = 269 respondents. However, only n = 257 completed the questionnaire, which was less than the required sample (< n = 12 respondents). The response rate in this study was 33.67%.

3.5 Rigour of the Study

3.5.1 Translation

The official language in Kuwait is Arabic; however, the original HLSUS questionnaire was in English, which required the questionnaire to be translated. Translating the questionnaire allowed the Kuwaiti students to understand the content and provide more accurate answers. The supervisors of this research project were kept informed throughout the translation process where their comments and suggestions were taken into consideration. In compliance with the requirements of Flinders University Ethics Committee (SBREC) and CoNs ethics committee in Kuwait, a translator was assigned to translate the questionnaire. The translator was qualified to translate the required material. The translator was a lecturer at the College of Education who had completed a Bachelor's Degree, a Masters' Degree and a PhD from universities in the UK.

The translation process was independently reviewed by the researcher and the translator to provide the most accurate translation (Appendix 8). The final translated copies were provided to an expert assigned by the PAAET CoNs ethics committee in Kuwait, who approved the questionnaire and suggested minor changes to the final Arabic copy. Hospitals and universities in Kuwait operate with bilingual teaching and training. Upon the CoN ethics committee's suggestion, each question was written in both Arabic and English (Appendix 3).

3.5.2 Validity and reliability of HLSUS

The HLSUS tool was validated in its original form (Dong et al., 2013), and has been used in different countries, including China and Iran (Aminisani et al., 2016; Dong et al., 2013). As the original validated tool was altered for use in the current study, it was essential to test the modified tool to ensure its reliability (Creswell, 2014). The translated tool for this study was tested on n = 30 students (n = 15 females, n = 15 males). According to LoBiondo-Wood and Haber (2014), a pilot study is necessary to assess the feasibility of the Arabic version of HLSUS on Kuwaiti undergraduates at CoN. Blumberg, Cooper, and Schindler (2008) suggested that a sample size of 25–100 was adequate to test a questionnaire in quantitative research, thus testing the tool on 30 students was considered adequate. Students reported that the questions were easy to understand and the layout was easy to follow. They did not report any issues with readability and intelligibility. Students who participated in the pilot study were excluded from the sample population (Figure 4 and 5, p 20).

3.6 Ethical Considerations

According to Polit and Beck (2017), any research activity has to identify, observe and adhere to ethical principles and considerations throughout the research process. Before, during and after the study, supervisors from Australia and Kuwait helped ensure the ethical considerations of the study were taken into account. Permission to conduct the study and ethical approval was sought by both the Flinders University Social and Behavioural Research Ethics Committee (SBREC) (Approval # 7872) (Appendix 4), as well as the ethics committee of CoN in Kuwait (Appendix 5).

Specific criteria and strict rules were applied to conduct research. According to the National Statement on Ethical Conduct in Human Research (NHMRC), researchers are required to respect research subjects (NHMRC, 2007). Ethical considerations also include communication, dissemination and publication of the study (Polit & Beck, 2017). To ensure the rights of the participants were considered at all times, participants were informed that:

- Data would only be used for the study and that no personal data would be collected.
- Participation was voluntary and participants had the right to withdraw from the study if they wished to do so.
- No penalty or prejudice would be applied if anyone refused to participate or discontinue the online questionnaire and that there were no direct benefits for participating.

- Consent was implied upon completion of the online questionnaire.

An information sheet (Appendix 7) providing explanations and information regarding the research process accompanied each questionnaire. The contact details of the researcher were available on the information sheet in case participants had any inquiries regarding the study. As advised by Polit and Beck (2017), a contingency plan was prepared in case ethical issues arose during data collection. While the questionnaire did not pose physical or mental risks to participants, unforeseen risks were mitigated by providing the contact information of a social worker who was aware of the study. To maintain participant confidentiality, data were kept in a secure locker at the university (hard copy) and on a university computer secured with a password (soft copy) that was accessible only to the researcher. Data is securely stored for up to five years and is then destroyed (NHMRC, 2007).

3.7 Data Analysis

Data collected from participants were analysed using Statistical Packages for Social Science (SPSS), version 20. The validity and reliability of the research instrument was calculated and obtained using a Cronbach's alpha coefficient, computed in SPSS. The composite score of the HLSUS rating was obtained and described using the mean, standard deviations and the minimum and maximum, while percentage distribution of frequencies was used to describe the demographic characteristics of the participants (Pallant, 2013). The relationship between the demographic characteristics and HLSUS rating of lifestyle behaviour was established using different statistical procedures, including the independent sample t-test, Analysis of Variance (ANOVA) and other correlation tests. Findings were considered statistically significant at a p-value less than or equal to 0.05 (Pallant, 2013).

3.8 Summary

This chapter provided a detailed explanation of the methodology and methods used to explore the health-related behaviours of nursing students in the CoN in Kuwait. The rigid criteria presented in the chapter were followed to ensure the accuracy and reliability of the findings. Cross-sectional research was chosen as the most suitable design to answer the research questions. The following chapter presents the results of the survey undertaken to evaluate health-related behaviours of nursing students in Kuwait.

CHAPTER FOUR
RESULTS

4.0 Introduction

This chapter presents the results of this study. It provides evidence related to the research questions posited in Chapter 1 (p. 1). This chapter consists of three sections: a test of the reliability of the Healthy Lifestyle Scale for University Students (HLSUS), the descriptive statistics of participant's demographic characteristics - and the HLSUS ratings.

4.1 Test of Reliability

The internal consistency of the HLSUS questionnaire was measured using Cronbach's alpha, which compared each item with all other items (38 in total) simultaneously (Schneider & Whitehead, 2016). A Cronbach's alpha value of 0.812 was obtained (see Table 1). According to Polit and Beck (2017), a Cronbach's alpha value of 0.7 is adequate, but a 0.8 value or higher indicates a more reliable questionnaire. Schneider and Whitehead (2016) stated that a high Cronbach's alpha value (> 0.95) indicates a high correlation between items on the questionnaire and that some items may be removed without affecting the reliability of the tool.

Table 1: Reliability Statistics

Cronbach's Alpha	Number of Items
.812	38

4.2 Descriptive Statistics of Participant's Demographic Characteristics

4.2.1 Age

As observed from the demographic data the participants' ages fell between several age bands. These were between 18–24 years of age (n = 182, 70.8%), between 25–30 years of age (n = 38, 14.8%) and between 30–35 years of age (n = 37, 14.4%) (see Table 2, p. 28).

Table 2: Age

	Frequency	Percent	Valid Percent	Cumulative Percent
18-24 years old	182	70.8	70.8	70.8
25-30 years old	38	14.8	14.8	85.6
30-35 years old	37	14.4	14.4	100.0
Total	257	100.0	100.0	

Source: Primary data

4.2.2 Gender

Of the 257 participants, there were slightly more female students than male students (n = 143, 55.6% and n = 114, 44%, respectively) (See Table 3).

Table 3: Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Female	143	55.6	55.6	55.6
Male	114	44.4	44.4	100.0
Total	257	100.0	100.0	

Source: Primary data

4.2.3 Nationality

Participants consisted of both Kuwaiti (n= 148, 56.6%) and non-Kuwaiti (n = 109, 42.2%) undergraduate nursing students (see Table 4).

Table 4: Nationality

	Frequency	Percent	Valid Percent	Cumulative Percent
Kuwaiti	148	57.6	57.6	57.6
Non-Kuwaiti	109	42.4	42.4	100.0
Total	257	100.0	100.0	

Source: Primary data

4.2.4 Marital status

The distribution of the participants' marital status, as observed, included: single (n = 197, 76.7%), married (n = 52, 20.2%) and divorced (n = 7, 2.7%). One participant did not share their marital status, which was recorded as missing data. None of the participants were widowed (see Table 5).

Table 5: Marital Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Divorced	7	2.7	2.7	2.7
Married	52	20.2	20.3	23.0
Single	197	76.7	77.0	100.0
Total	256	99.6	100.0	
Missing Data	1	0.4		
Total	257	100.0		

Source: Primary data

4.2.5 Fathers' education

Examination of the distribution of the participants' fathers' education revealed that the majority of the participants' fathers have either held bachelor's degrees (n = 66, 25.7%), school certificates (n = 74, 28.8%) or held lower qualifications than the high school certificate (n = 72, 28.1%). The number of students' fathers holding associate degree diplomas was n = 36 (14%), while other qualification categories were distributed at 1.9% (n = 5) and 1.6% (n = 4) for master's degree and doctorate holders respectively (see Table 6).

Table 6: Fathers Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Lower than high school	72	28.1	28.1	28.1
High school	74	28.8	28.8	56.9
Associate degree diploma	36	14.0	14.0	70.9
Bachelor's degree	66	25.7	25.7	96.6
Masters' degree	5	1.9	1.9	98.5
Doctorate degree	4	1.5	1.5	100.0
Total	257	100.0	100.0	

Source: Primary data

4.2.6 Mothers' education

The majority of participants' mothers held certificates lower than high school level: n = 106 (41.2%). High school certificate holders were n = 58 (22.7%), with associate degree diploma holders counted at n = 51 (19.9%). Participants' mothers who held a bachelor's degree were counted at n = 37 (14.4%), while the remaining qualification categories were distributed at 1.2% (n = 3) and 0.4% (n = 1) for master's degree and doctorate holders respectively (see Table 7).

Table 7: Mothers' Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Lower than high school	106	41.2	41.3	41.3
High school	58	22.6	22.8	64.1
Associate degree nursing	51	19.8	19.9	84.0
Bachelor's degree	37	14.4	14.5	98.5
Masters' degree	3	1.1	1.1	99.6
Doctorate degree	1	0.4	0.4	100.0
Total	256	99.6	100.0	
Missing Data	1	0.4		
Total	257	100.0		

Source: Primary data

4.2.7 Family income

The majority of participants had a family income of between 500 and 1000KD (n = 74, 28.8%). Participants with a family income under 500KD were counted at n = 59 (22.4%), with 21% (n = 54) of participants reporting family income between 1000 and 1500KD. Students reporting high family income: between 1500 and 2000KD (n = 38, 14.8%) and over 2000KD (n = 31, 12.1%) (see Table 8, p. 31).

Table 8: Family Income

	Frequency	Percent	Valid Percent	Cumulative Percent
Under 500KD	59	22.4	22.4	22.4
Between 500-1000KD	74	28.9	29.0	51.4
Between 1000-1500KD	54	21.1	21.2	72.6
Between 1500-2000KD	38	14.9	15.0	87.6
Over 2000KD	31	12.3	12.4	100.0
Total	256	99.6	100.0	
Missing data	1	0.4		
Total	257	100.0		

Source: Primary Data, KD Kuwaiti Dinar, KD 1 = AUD 4.5 (approximately in 2018)

4.2.8 Nursing program

Participants were divided into four nursing programs. The majority of students were studying to obtain an Associate Degree in Nursing (n = 120, 46.7%) or a Bachelor of Science in Nursing (n = 102, 39.7%). Fewer students were enrolled in the Bachelor of School Nursing Degree (n = 17, 6.6%) and the Post-Basic Nursing Program (n = 14, 5.4%) (see Table 9).

Table 9: Nursing Program

	Frequency	Percent	Valid Percent	Cumulative Percent
Associate Degree in Nursing (ADN)	120	46.7	47.4	47.4
Bachelors of School Nursing	17	6.6	6.7	54.1
Bachelors of Science in Nursing (BSN)	102	39.7	40.4	94.5
Post-Basic Nursing Programme	14	5.4	5.5	100.0
Total	253	98.4	100.0	
Missing Data	4	1.6		
Total	257	100.0		

Source: Primary Data

4.2.9 Academic year

The distribution of the academic year of participants was measured. Most participants were in the first year of their academic program (n = 89, 34.9%), followed by second-year students (n = 64,

24.9%) and fourth-year students (n = 53, 20.6%). The fewest number of participants were completing their third year (n = 49, 19.1%) (see Table 10)

Table 10: Academic Year

	Frequency	Percent	Valid Percent	Cumulative Percent
First	89	34.9	34.9	34.9
Second	64	24.9	25.1	60.0
Third	49	19.1	19.2	79.2
Fourth	53	20.6	20.8	100.0
Total	255	99.2	100.0	
Missing Data	2	0.8		
Total	257	100.0		

Source: Primary data

4.3 HLSUS Ratings

4.3.1 Test of significance of the HLSUS ratings

A one-sample t-test was conducted to examine the statistical significance of the HLSUS ratings in evaluating the lifestyle behaviour of undergraduate nursing students in Kuwait. The test reported that the mean HLSUS ($\mu = 3.721$, SD = 0.8089) was significant at p = 0.05, conditions t (256) = 73.751, $p < 0.0001$. This implied that the undergraduate nursing students in Kuwait practiced a healthy lifestyle (see Tables 11 and 12).

Table 11: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
HLSUS	257	3.7213	.80890	.05046

Source: Primary data

Table 12: One-Sample Test

	Test Value = 0					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
HLSUS	73.751	256	.000	3.72132	3.6219	3.8207

4.3.2 HLSUS ratings with participants' categories

Each of the participants' categories was compared with the overall HLSUS rating to determine whether there was any significant relationship between them (see Table 13).

Table 13: HLSUS Ratings with Participants' Categories

Demographic Characteristics	Statistical Test	F/t Value	P-Value	Result
Age	ANOVA	0.534	0.660	Not Significant
Gender	t-test	1.661	0.098	Not Significant
Nationality	t-test	-0.316	0.753	Not Significant
Marital Status	ANOVA	0.057	0.945	Not Significant
Fathers' Education	ANOVA	1.317	0.250	Not Significant
Mothers' Education	ANOVA	0.642	0.697	Not Significant
Family Income	ANOVA	1.453	0.195	Not Significant
Nursing Program	ANOVA	1.020	0.398	Not Significant
Academic Year	ANOVA	3.690	0.006	Significant

4.3.2.1 Age

The one-way analysis of variance (ANOVA) was conducted to compare the mean of HLSUS ratings by age category of participants. The different age categories considered were 18–24 years, 25–30 years and 30–35 years. No significant difference in the HLSUS rating of undergraduate nursing students in Kuwait and their age categorisation at $p < 0.05$ level for at least two of the age categories [$F(2,253) = 0.534$, $p = 0.660$] was observed.

4.3.2.2 Gender

An independent-samples t-test was undertaken to compare the mean of HLSUS rating by gender of undergraduate nursing students in Kuwait. There was no significant difference in the mean scores for male ($\mu = 3.628$, $SD = 0.783$) and female ($\mu = 3.796$, $SD = 0.834$) conditions; $t(255) = 1.661$, $p = 0.098$. These results revealed that the HLSUS ratings for the male undergraduate nursing students were not significantly different from the females.

4.3.2.3 Nationality

To compare the mean of HLSUS rating by nationality, an independent-samples t-test was carried out. No significant difference was found in the mean scores for Kuwaiti (μ= 3.708, SD = 0.768) and non-Kuwaiti (μ = 3.739, SD = 0.865) conditions; t (255) = - 0.316, p = 0.753. Therefore, the HLSUS ratings for both Kuwaiti and non-Kuwaiti undergraduate nursing students were insignificant.

4.3.2.4 Marital status

A comparison of the mean of HLSUS ratings and marital status category of the undergraduate nursing students in Kuwait was conducted using ANOVA. Four marital status categories were considered: single, married, divorced and widowed. Results demonstrated that there was no significant difference in the mean HLSUS rating and their marital status categorisation at $p < 0.05$ level for at least two of the marital status categories [$F(3,253) = 0.057$, $p = 0.945$].

4.3.2.5 Fathers' education

Using ANOVA, the mean of HLSUS ratings was compared with the fathers' education category. The different levels of fathers' education were: lower than high school, High School Certificate, Associate Degree Diploma, Bachelor's Degree, Master's Degree, and Doctorate. There was no significant difference in the mean HLSUS rating and fathers' education categorisation at $p < 0.05$ level for at least two of the age categories [$F(2,253) = 0.534$, $p = 0.660$].

4.3.2.6 Mothers' education

ANOVA was used to compare the mean of HLSUS ratings by mothers' education category. The categories considered were: lower than high school, High School Certificate, Associate Degree Diploma, Bachelor's Degree, Master's Degree, and Doctorate. The mean HLSUS rating and mothers' education categorisation was not significant at $p < 0.05$ level for at least two of the age categories [$F(2,253) = 0.534$, $p = 0.660$].

4.3.2.7 Family income

ANOVA was used to compare the mean of HLSUS ratings by family income category. The different family income categories considered were under 500KD, between 500 and 1000KD, between 1000 and 1500KD, between 1500KD and 2000KD and over 2000KD. SPSS output indicated no significance in the mean HLSUS rating between the undergraduates and their family income at $p < 0.05$ level for at least two of the family categories [$F(4,252) = 1.453$, $p = 0.195$].

4.3.2.8 Nursing program

ANOVA was used to compare the mean of HLSUS ratings by academic program category of the undergraduate nursing students in Kuwait. The different undergraduate academic program categories considered were Associate Degree in Nursing, Post Basic Nursing Programs, Bachelor of School Nursing and Bachelor of Science in Nursing. It was observed from the SPSS output that there was no significant difference in the mean HLSUS rating of the undergraduate nursing students of Kuwait and their academic program categorisation at $p < 0.05$ for at least two of the family categories [$F(3,253) = 1.020$, $p = 0.398$].

4.3.2.9 Academic year

ANOVA was used to compare the mean of HLSUS ratings by academic year category of the participants. The undergraduate academic year categories were first year, second year, third year and fourth year. The results of SPSS outputs indicated a statistical significance between the mean HLSUS rating of the undergraduate nursing students of Kuwait and their academic year categorisation at $p < 0.05$ level for at least two of the academic year categories [$F(3,253) = 3.690$, $p = 0.006$].

4.4 Summary

According to the overall HLSUS score, the majority of undergraduate nursing students in Kuwait practiced healthy lifestyle behaviours. The undergraduates' academic year was the only category to have significance on healthy lifestyle behaviours.

The following chapter will discuss the results of this study and compare them with existing studies. The strengths and limitations of this study will be identified and recommendations will be made for further improvements in relation to the support of healthy behaviours among university students.

CHAPTER FIVE
DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.0 Introduction

This chapter discusses the findings of this study through critically comparing and contrasting the results with previous studies that have examined the healthy lifestyle behaviours of university students. Furthermore, the identified strengths and limitations of this study and the recommendations for current practice and further research are highlighted.

5.1 Socio-demographic Characteristics of the Sample Population

This is the first study to evaluate health-related behaviours using Healthy Lifestyle Scale for University Students (HLSUS) among Kuwaiti nursing students. The first objective of this study was to identify the participant samples' demographic profile on the basis of age, gender, nationality, marital status, parents' education, family income, nursing program and academic year. The next section will discuss these in detail.

5.1.1 Age and Gender

The majority of the respondents were aged between 18 and 24 years old. These findings are consistent with previous international studies (Aceijas et al., 2017; Dawson et al., 2007; Guo et al., 2010; Peltzer & Pengpid, 2014; Weissman et al., 2016) and national study (Al-Kandari & Vidal, 2007) that reported similar age ranges of 17–25 years. The proportion of female-to-male participants (approximately 1:1) was similar to the findings of Tirodimos et al. (2009). However, several other studies reported a higher number of female students than male students; this may be due to the higher number of enrolled female students in nursing programs (Aceijas et al., 2017; Al-Sayegh et al., 2016; Can et al., 2008; Dawson et al., 2007; El Ansari et al., 2011; van Rensburg & Surujlal, 2013; Yahia et al., 2016). Females were also found to participate in surveys more than males (El Ansari et al., 2011).

5.1.2 Marital status

The relationship status of respondents in this study was reported by the majority as being single which may be due to parental encouragement to complete a degree before getting married. Similar results were found in studies conducted in the USA (Weissman et al., 2016) and in Turkey (Can et al., 2008). In Kuwait, Al-Sejari (2017); Al-Kandari and Vidal (2007); and Alkazemi et al. (2018) also reported that most undergraduates were single during their academic period.

Conversely, El Ansari et al. (2011) reported that in the UK, approximately half of their study population were in a relationship, or had a boyfriend or girlfriend which might be a result of cultural diversity among students in UK universities.

5.1.3 Parents educational level

A study carried out in a Turkish university stated that the presence of a parent with a higher level of education might have a positive influence on students' adoption of a healthy lifestyle (Can et al., 2008). This corresponded with Deliens et al. (2013) where they reported that more than half of the students had a parent with a diploma or higher degree. In this study of CoN students, the level of parents' education was mostly High School Certificate or lower, which is similar to the findings of a study conducted in China Guo et al. (2010). However, according to Al Darwish (2016), Kuwaiti parents who achieved high educational levels have a positive impact on the students' academic achievements, health-related behaviours and personal perceptions towards self-development.

5.1.4 Academic Year

Researchers claimed that the higher the number of years spent in nursing schools the better the effect on nursing students' health-related behaviours (Can et al., 2008). In our findings, first-year students comprised the largest number of participants in the participant sample. This is in line with the findings of international studies conducted in Turkey (Can et al., 2008), the UK (El Ansari et al., 2011), and Japan (Wei et al., 2012). In contrast, both van Rensburg and Surujlal (2013) and Yahia et al. (2016) reported a higher number of participants from years two and three. Students in a higher academic year could be less available on campus because of their clinical placements and more focussed on their studies rather than doing other things like surveys. However, there is limited research that examine the relation between nursing students' health-related behaviours and academic year.

5.1.5 Family income

Can et al. (2008) reported a notable association between higher income and healthier lifestyle. In addition, Wei et al. (2012) identified a direct correlation between income and social relationships for university students and their family members and friends. This study found that most of the students at CoN described their family income as being in the middle-to-high range, which was also reported with the findings of both studies, national (Al-Sejari, 2017) and international (El Ansari & Stock, 2010). Two international studies noted that the majority of their students came from a financially well-established background (Guo et al., 2010; Peltzer & Pengpid, 2014).

However, in the UK, Aceijas et al. (2017) reported that more than half of his sample had limited finance and had to carefully consider their lifestyle budget. Participants of this study were mostly financially stable therefore adopting a healthier lifestyle might be less demanding. However, a study conducted among Kuwaiti male university students between June 2015 and May 2016 identified a higher income of university students resulted in poor nutritional behaviours and daily physical activity (Al-Sejari, 2017).

5.2 Comparison of CoN Students Based on Gender

The literature revealed a clear difference between genders in regard to students' engagement in health-related behaviours. The second objective of this study was to compare male and female nursing students at CoN according to the HLSUS criteria: physical activity, smoking, sleep pattern, stress management and nutrition.

5.2.1 Physical activity

According to Sharara, Akik, Ghattas, and Obermeyer (2018), a systematic review that included 22 Arab countries between 2000 and 2016 found that physical inactivity was high among the Arab population. The findings of the current study established that male nursing students were more physically active than female students. Al-Sayegh et al. (2016); Al-Kandari and Vidal (2007); Alsahli (2015) and Musaiger et al. (2014) reported that Kuwaiti university students were inactive in general, but the male engaged in physical activity more than their female colleagues which corresponds with the findings of this study. This reflected the findings of previous studies, which have also reported that males were more likely to meet the international recommendation guidelines on physical activity (Aceijas et al., 2017; Can et al., 2008; Dawson et al., 2007; El Ansari et al., 2011; Ruthig et al., 2011; Tirodimos et al., 2009; Yahia et al., 2016). In contrast, van Rensburg and Surujlal (2013) found that female students were more physically active than males in a study that conducted in South Africa.

Several barriers were identified in both national and international studies that could have influenced the level of activity among university students. Internationally, Nelson et al. (2009) argued that factors such as alcohol consumption, partying and lack of time during university semesters negatively impacted on the physical activity of students, which as more common in male students. Deliens et al. (2015) claimed that examination and stressful time periods can affect university students' willingness to maintain an active life where the female students were found to have higher stress levels. Moreover, Aceijas et al. (2017) noted that university students can often not afford to pay for gym or health club memberships. In Kuwait, Alsahli (2015) and Musaiger et al.

(2014) reported that university students, both male and female, claimed that the hot weather, lack of time to exercise, lack of energy, lack of motivation, fear of injury and lack facilities were the reasons for their inactivity.

5.2.2 Smoking

Tobacco smoking is another important element of health-related behaviour. According to the World Health Organisation (WHO, 2018), no changes were noticed in the prevalence of smoking among the Kuwaiti male whereas a decrease was seen in the prevalence of smoking in females within the last decade. Omu et al. (2015) studied the use of tobacco products among nursing students in Kuwait and found the majority of the students never smoked. This contradicted the findings of this study where more than half of male nursing students were smokers and the vast majority of female nursing students were non-smokers. Although both studies were conducted on nursing students in Kuwait, changes in the prevalence of smoking was observed in male students only which might be because of reporting bias by the female students where being a female smoker is socially and culturally unacceptable. Other studies conducted nationally (Al-Sayegh et al., 2016) and internationally (El Ansari et al., 2011) correspond with the findings of this study where they reported that male students smoked more tobacco than female students. Conversely, van Rensburg and Surujlal (2013) reported that female students had a higher tobacco smoking percentage than male students. However, two studies conducted in European countries found no difference between genders in regard to tobacco consumption (Ruthig et al., 2011; Tirodimos et al., 2009).

5.2.3 Stress management

Previous studies on health-related behaviours among university students identified complex mental health issues associated with transition from adolescence to young adult life (Aceijas et al., 2017; Deforche, Van Dyck, Deliens, & De Bourdeaudhuij, 2015). A study by van der Riet, Rossiter, Kirby, Dluzewska, and Harmon (2015) found that there was an increase in students' concentration, quality of sleep, and a decrease in negative perceptions through piloting a stress management and mindfulness programme on nursing and midwifery students in Australia. In regard to stress management, the current study found that male students were more capable of managing their stress. This finding was consistent with Aceijas et al. (2017) but not with the findings of Al-Sayegh et al. (2016) and Ruthig et al. (2011), who reported that female students were more confident in dealing with academic and life stress. Deliens et al. (2013) found that there was no difference between genders in the ability to cope with stress levels.

The influence of Kuwaiti social life provides the male with an opportunity to share their thoughts and concerns through regular social gatherings known as "diwaniyah" where friends and families gather for casual conversations or formal discussions (Al-Kandari & Vidal, 2007). This could be one reason that male nursing students reported being less stressed.

5.2.4 Sleep patterns

University students were known to suffer from poor sleep quality (Al-Kandari et al., 2017). Flueckiger, Lieb, Meyer, Witthauer, and Mata (2017) claimed that university students with good quality sleep could better achieve academic goals. This study found that sleep patterns were approximately the same between male and female students at CoN. Similar findings were reported in studies of university students in Canada, Belgium and the USA, which found no significant difference in the hours of sleep between genders (Dawson et al., 2007; Deliens et al., 2013; Ruthig et al., 2011). One study reported that female students had better sleep patterns compared to male students in Kuwait (Al-Sayegh et al., 2016), which contrasted the findings of Al-Kandari et al. (2017) who found that male students reported better sleep behaviour. Overall Kuwaiti university students practice proper sleeping behaviours which might be because they have less responsibility being single and financially supported by their parents.

5.2.5 Nutrition behaviours

Stress eating can affect students' weight, diet and physical activity, which eventually affects the students' body mass index and overall body satisfaction (Alkazemi et al., 2018; Nelson et al., 2009). This study investigated nutritional behaviours as one aspect of HLSUS and results indicated good eating habits and that there was no difference between genders at CoN, which might be a result of the positive effect of nursing education of students' health-related behaviours (Can et al., 2008). The results of this study were comparable to the findings of Dawson et al. (2007), Deliens et al. (2013) and El Ansari et al. (2011), who found that the nutritional attitudes between male and female university students were almost equal. A study that investigated the longitudinal associations of health behaviours with academic performance among college students in the USA found that male students presented with significantly better nutritional habits than female students (Ruthig et al., 2011). However, more recent studies contradict the findings of Dawson et al. (2007), Deliens et al. (2013), El Ansari et al. (2011) and Ruthig et al. (2011), reporting that female university students engaged in healthier eating habits more than male students (Aceijas et al., 2017; Yahia et al., 2016). Deliens et al. (2014) claimed that university students strongly

believed that eating choices can be influenced by stressful academic time periods, peer pressure and social support.

A comparison of the present findings with the existing data from Kuwait shows that female university students practice healthier eating habits than their male colleagues (Al-Sayegh et al., 2016), whereas this study and Al-Kandari, Vidal, and Thomas (2008) focussed mainly on nursing students who found that both genders practice good eating habits which would potentially encourage them to be good health educators.

5.3 Factors Associated with Health-related behaviours of CoN Students using HLSUS

The third objective was to evaluate factors associated with health-related behaviours of CoN students. The categories associated with HLSUS were age, gender, nationality, marital status, father's education, mother's education, family income, nursing program and academic year. This study found that out of the nine socio-demographic factors, only students' academic year was significantly associated with the overall HLSUS score. This was consistent with the findings of international studies conducted by Can et al. (2008) in Turkey, van Rensburg and Surujlal (2013) in South Africa and Yahia et al. (2016) in the USA, who also found significance between students' academic year and healthy behaviours. However, Wei et al. (2012) contradict previous studies in reporting a negative relationship between health-related behaviours and students' academic year where higher-year students practised less healthy behaviours than the first-year students. Although this finding may have been significant, Wei et al. (2012) did not specify the discipline of their students. Al-Sayegh et al. (2016) reported that, although students at the College of Health Sciences at Kuwait university were expected to be role-models for healthy lifestyle, they did not follow healthy behaviours.

The current study identified that nursing students in CoN practised health-related behaviours who are assumed to serve as future health educators in the Kuwaiti. According to Al-Kandari and Vidal (2007) and Can et al. (2008), higher-year nursing students exhibited more health-promoting behaviours where they claimed that students who were enrolled in nursing programs had a good knowledge of health behaviours. Although the authors did not discuss the reasons for the health-promoting behaviours, this could be due to the growth of knowledge on health that nursing students were gaining during their studies as opposed to other disciplines.

5.4 Limitations and Strengths of the Study

There were limitations encountered in this study. All data were collected via an online self-reported questionnaire that may have introduced non-accurate data due to recall bias, social desirability and sociability.

There were limitations regarding the methods used in this research project which were identified in the methodology and sampling strategy. As a cross-sectional survey, the data can only reflect participants' lifestyle behaviours at one 'snapshot' in time. This study did not allow for the discovery of trends or variations across university years. Furthermore, data were collected using a convenience sample and the fact that participants were volunteers potentially could have meant that participants were more health conscious and interested in their health than non-participants. Despite the presence of these limitations, the findings of this study add to the body of knowledge in this area and could act as a solid base for future research.

There are related strengths in this research project. The findings in this study presented valuable insight into the lifestyles of university students in CoN in Kuwait. The sample size, as justified in Chapter 3 (p. 20), signified that generalisations could be made about the college in which the data were collected and other nursing institutes in Kuwait. However, the findings could not be generalised to the whole population. Another strength was this study's emphasis on the anonymity of participants, who were allowed to fill out the online questionnaire at the time and place of their choosing using personal devices. The HLSUS tool was designed for university students and was tailored to suit the Kuwaiti culture. To the researcher's knowledge, this study represents the first use of the tool in this population group, in which the HLSUS tool was designed targeted at university students rather than the general adult population.

5.5 Recommendations

Arising from this study are several recommendations that could assist in improving the health-related behaviours of nursing students. This includes:

- Further research using a range of qualitative, quantitative or mixed method research to better understand the health-related behaviours among the Kuwaiti population.
- Future questionnaires in this subject area are recommended to include open-ended questions to provide further narrative insights. Regarding the HLSUS tool, the

questionnaire lacked questions about academic achievement and academic satisfaction, which could be added to enrich the results.

- Further research that aims to identify wider cultural barriers preventing the adoption of healthy lifestyle among nursing students are encouraged.
- There is a need for cohort studies to be conducted to monitor trend changes that occur in students' health and wellbeing at universities over longer periods of time. These studies can act as indicators of the change in health needs of different student cohorts as they progress through their studies.
- Further awareness-raising and targeting of relevant policy makers and stakeholders is encouraged related to the needs of Kuwaiti university students in adopting a healthy lifestyle.

5.6 Future implications

In Kuwait, an effort is necessary to integrate structured and culturally suitable programmes and policies to encourage positive health-related behaviours into community health nursing courses. This is needed to increase overall grades, to increase health for older populations, to prevent or diminish the implications of the growing trend in chronic diseases. This would also assist nursing students toward a healthier lifestyle which could potentially produce more effective future health educators. This study has a number of implications, which include:

- Colleges should provide on-campus fitness centres to encourage exercise and physical activity (El Ansari et al., 2011). Social and community events may also encourage students to be physically active.
- CoN should adopt smoke-free campus policies, which may reduce smoking and second-hand smoke exposure (Lupton & Townsend, 2015).
- Counselling services and stress management programs to support student's personal and academic welfare (Can et al., 2008; van der Riet et al., 2015).
- Healthy food choices should be available and made affordable in CoNs cafeteria that will improve nutritional behaviours of nursing students (Holt & Powell, 2017).

5.7 Conclusion

Research has shown that undergraduate university students engage in risky behaviours that affect both their current and future health status (Can et al., 2008; El Ansari et al., 2011; El Ansari et al., 2014). Kuwait is in the top ten countries with the highest prevalence of obesity worldwide, with

approximately 80% of its population overweight and 46% of its population obese (Haskin, 2013). Other chronic diseases found in the Kuwaiti population were 25.3% hypertension, 17.8% smoking related disorders and 11% cancer (IDF, 2013). The country is also ranked ninth in the world and second in the Middle East and North Africa region in its prevalence of diabetes (Nakhi & Eltayeb, 2018).

This study aimed to evaluate health-related behaviours among undergraduate students of the College of Nursing (CoN) in Kuwait, using the Healthy Lifestyle Scale for University Students A cross-sectional descriptive survey was conducted from April and June 2018 using the HLSUS tool to assess the demographic data of nursing students at CoN and the HLSUS score to determine any association between them. The Cronbach's alpha of the HLSUS tool was 0.81 making the tool reliable. Ethics approval was granted by the Flinders University Social and Behavioural Research Ethics Committee (SBREC) (Approval #7872), as well as the ethics committee of CoN in Kuwait (HLSUS) tool.

Out of a total of 269 respondents, 257 completed the questionnaire. The response rate in this study was 33.67%. Although there were more female students enrolled at CoN than male students, the number of male participants were approximate to the females which implies that male students in CoN were more interested in participating in questionnaires. According to HLSUS the academic year was the only category to have significance on healthy lifestyle behaviours. The majority of undergraduate nursing students in Kuwait practiced healthy lifestyle behaviours, with gender differences and sociodemographic influences on some HLSUS subscales. Male students had higher scores in physical activity, stress management and smoking whereas the females scored slightly higher in sleep pattern and nutritional behaviours.

The results of this study are assisting in the designing of health promotion programs and planning of more effective health-related inventions in university settings. It highlights the necessity of developing university facilities to include on-campus gyms and smoke-free campus, and amenities such as providing healthy food choices at the CoN cafeteria and initiating stress management programmes and counselling services to assist with students personal and academic welfare. It also recommends the involvement of policy makers and stakeholders in creating a healthy environment for Kuwaiti university students. Finally, it is anticipated that this study will encourage future improvement of educational facilities in Kuwait to enable students to adopt a healthier lifestyle.

REFERENCES

Aceijas, C., Waldhäusl, S., Lambert, N., Cassar, S., & Bello-Corassa, R. (2017). Determinants of health-related lifestyles among university students. *Perspectives in Public Health, 137*(4), 227-236.

Al Darwish, S. (2016). The role of socioeconomic factor in promoting higher education in the state of Kuwait. *International Education Studies, 9*(6), 1-14.

Al-Baho, A. K., Al-Naar, A., Al-Shuaib, H., Panicker, J. K., & Gaber, S. (2016). Levels of physical activity among Kuwaiti adults and perceived barriers. *Open Public Health Journal, 9*(1), 77-87. doi:10.2174/1874944501609010077

Alfadhli, S., Al-Mazeedi, S., Bodner, M. E., & Dean, E. (2017). Discordance between lifestyle-related health practices and beliefs of people living in Kuwait: a community-based study. *Medical Principles and Practice, 26*(1), 10-16.

Al-Isa, A. N., Campbell, J., Desapriya, E., & Wijesinghe, N. (2011). Social and health factors associated with physical activity among Kuwaiti college students. *Journal of Obesity, 2011*.

Al-Isa, A., Campbell, J., & Desapriya, E. (2013). Factors associated with overweight and obesity among Kuwaiti men. *Asia-Pacific Journal of Public Health, 25*(1), 63-73. doi:10.1177/1010539511412178

Al-Kandari, F. H., & Lew, I. (2005). Kuwaiti high school students' perceptions of nursing as a profession: implications for nursing education and practice. *Journal of Nursing Education, 44*(12), 533.

Al-Kandari, F., & Vidal, V. L. (2007). Correlation of the health-promoting lifestyle, enrollment level, and academic performance of college of nursing students in Kuwait. *Nursing & Health Sciences, 9*(2), 112-119.

Al-Kandari, F., Vidal, V. L., & Thomas, D. (2008). Health-promoting lifestyle and body mass index among college of nursing students in Kuwait: A correlational study. *Nursing & Health Sciences, 10*(1), 43-50.

Al-Kandari, S., Alsalem, A., Al-Mutairi, S., Al-Lumai, D., Dawoud, A., & Moussa, M. (2017). Association between sleep hygiene awareness and practice with sleep quality among Kuwait university students. *Sleep Health, 3*(5), 342-347.

Alkazemi, D., Zafar, T. A., Ebrahim, M., & Kubow, S. (2018). Distorted weight perception correlates with disordered eating attitudes in Kuwaiti college women. *International Journal of Eating Disorders, 51*(5), 449-458.

Alsahli, S. M. (2015). *Barriers to physical activity among Kuwaiti university students.* Middle Tennessee State University,

Al-Sayegh, N., Al-Shuwai, N., Ramadan, S., Al-Qurba, T., Al-Obaidi, S., & Dean, E. (2016). Benchmarking the health of health sciences students at Kuwait university: towards a culture

of health /Mesurer la sante des etudiants en sciences medicales a l'universite du Koweit: vers une culture de la sante. *Eastern Mediterranean Health Journal, 22*(8), 619.

Al-Sejari, M. (2017). Sociocultural characteristic, lifestyle, and metabolic risk factors among a sample of Kuwaiti male university students. *American Journal of Men's Health, 11*(2), 308- 317.

Aminisani, N., Shamshirgaran, S. M., Jafarabadi, M. A., Sadeghi-Bazargani, H., Amini, A., Abedi, L., & Kanani, S. (2016). Reliability and validity of the Persian version of the healthy lifestyle scale for university students. *Res Dev, 5*(2), 79-84.

Angrisani, L., Santonicola, A., Iovino, P., Vitiello, A., Zundel, N., Buchwald, H., & Scopinaro, N. (2017). Erratum to: Bariatric surgery and endoluminal procedures: IFSO worldwide survey 2014 (Obesity Surgery, (2017), 27, 9, (2279-2289), 10.1007/s11695-017-2666-x). *Obesity Surgery, 27*(9), 2290-2292. doi:10.1007/s11695-017-2773-8

Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations, 61*(8), 1139-1160. doi:10.1177/0018726708094863

Behbehani, K. (2014). Kuwait national programme for healthy living: first 5-year plan (2013-2017)*23*(1), 32-42. doi:10.1159/000358884

Blumberg, C., Cooper, D., & Schindler, S. (2008). Research methods. *Boston: Irwin*, 130-139.

Bonita, R., Beaglehole, R., & Kjellström, T. (2006). *Basic epidemiology*: World Health Organization.

Brown, C., & Applegate, B. (2012). Holistic wellness assessment for young adults. *Journal of Holistic Nursing, 30*(4), 235-243. doi:10.1177/0898010112453327

Burkhalter, T. M., & Hillman, C. H. (2011). A narrative review of physical activity, nutrition, and obesity to cognition and scholastic performance across the human lifespan. *Advances in Nutrition: An International Review Journal, 2*(2), 201S-206S.

Can, G., Ozdilli, K., Erol, O., Unsar, S., Tulek, Z., Savaser, S., . . . Durna, Z. (2008). Comparison of the health-promoting lifestyles of nursing and non-nursing students in Istanbul, Turkey. *Nursing and Health Sciences, 10*(4), 273. doi:10.1111/j.1442- 2018.2008.00405.x

Chanakira, E., O'Cathain, A., Goyder, E. C., & Freeman, J. V. (2014). Factors perceived to influence risky sexual behaviours among university students in the United Kingdom: a qualitative telephone interview study. *BMC Public Health, 14*(1), 1055.

Chenji, S. K. (2017). Cross-sectional analysis of obesity and high blood pressure among undergraduate students of a university medical college in South India. *Family Medicine and Community Health*.

Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks: Thousand Oaks: SAGE.

Critical Appraisal Skills Programme (CASP). (2013). Making sense of evidence: CASP Checklists. Retrieved from www.casp-uk.net/casp-tools-checklists

Dawson, K. A., Schneider, M. A., Fletcher, P. C., & Bryden, P. J. (2007). Examining gender differences in the health behaviors of Canadian university students. *The journal of the Royal Society for the Promotion of Health, 127*(1), 38-44.

Deforche, B., Van Dyck, D., Deliens, T., & De Bourdeaudhuij, I. (2015). Changes in weight, physical activity, sedentary behaviour and dietary intake during the transition to higher education: a prospective study. *International Journal of Behavioral Nutrition and Physical Activity, 12*(1), 16.

Deliens, T., Clarys, P., De Bourdeaudhuij, I., & Deforche, B. (2013). Weight, socio-demographics, and health behaviour related correlates of academic performance in first year university students. *Nutrition journal, 12*(1), 162.

Deliens, T., Clarys, P., De Bourdeaudhuij, I., & Deforche, B. (2014). Determinants of eating behaviour in university students: a qualitative study using focus group discussions. *BMC Public Health, 14*(1), 53.

Deliens, T., Deforche, B., De Bourdeaudhuij, I., & Clarys, P. (2015). Determinants of physical activity and sedentary behaviour in university students: a qualitative study using focus group discussions. *BMC Public Health, 15*(1), 201.

Dewald, J. F., Meijer, A. M., Oort, F. J., Kerkhof, G. A., & Bögels, S. M. (2010). The influence of sleep quality, sleep duration and sleepiness on school performance in children and adolescents: A meta-analytic review. *Sleep Medicine Reviews, 14*(3), 179-189. doi:10.1016/j.smrv.2009.10.004

Dong, W., Xiao-hui, X., & Xian-bo, W. (2012). The healthy lifestyle scale for university students: development and psychometric testing. *Australian Journal of Primary Health, 18*(4), 339-345. doi:https://doi.org/10.1071/PY11107

Dong, W., Xing, X.-H., & Wu, X.-B. (2013). Healthy lifestyles of university students in China and influential factors. *The Scientific World Journal, 2013*.

El Ansari, & Stock. (2010). Is the health and wellbeing of university students associated with their academic performance? cross sectional findings from the United Kingdom. *International Journal of Environmental Research and Public Health, 7*(2), 509-527.

El Ansari, Stock, C., John, J., Deeny, P., Phillips, C., Snelgrove, S., . . . Stoate, M. (2011). Health promoting behaviours and lifestyle characteristics of students at seven universities in the UK. *Central European Journal of Public Health, 19*(4), 197.

El Ansari, W. (2014). Health and well-being of students at higher education institutions-time for urgent action? *Central European Journal of Public Health, 22*(2), 67.

El Ansari, W. E., Oskrochi, R., & Haghgoo, G. (2014). Are students' symptoms and health complaints associated with perceived stress at university? Perspectives from the United Kingdom and Egypt. *International Journal of Environmental Research and Public Health, 11*(10), 9981-10002.

El Ansari, W., Khalil, K., & Stock, C. (2014). Symptoms and health complaints and their association with perceived stressors among students at nine Libyan universities. *International Journal of Environmental Research and Public Health, 11*(12), 12088-12107. doi:10.3390/ijerph111212088

El Ansari, W., Vallentin-Holbech, L., & Stock, C. (2014). Predictors of illicit drug/s use among university students in Northern Ireland, Wales and England. *Global Journal of Health Science, 7*(4), 18. doi:10.5539/gjhs.v7n4p18

Flueckiger, L., Lieb, R., Meyer, A., & Mata, J. (2014). How health behaviors relate to academic performance via affect: an intensive longitudinal study. *PLoS One, 9*(10), e111080. doi:10.1371/journal.pone.0111080

Flueckiger, L., Lieb, R., Meyer, A., Witthauer, C., & Mata, J. (2017). Day-to-day variations in health behaviors and daily functioning: two intensive longitudinal studies. *Journal of Behavioral Medicine, 40*(2), 307-319. doi:10.1007/s10865-016-9787-x

Fortin, M., Haggerty, J., Almirall, J., Bouhali, T., Sasseville, M., & Lemieux, M. (2014). Lifestyle factors and multimorbidity: a cross sectional study. *BMC Public Health, 14*(1), 686.

Gall, S. L., Jamrozik, K., Blizzard, L., Dwyer, T., & Venn, A. (2009). Healthy lifestyles and cardiovascular risk profiles in young Australian adults: The childhood determinants of adult health study. *European Journal of Cardiovascular Prevention & Rehabilitation, 16*(6), 684-689.

Gerrish, K., & Lathlean, J. (2015). *Research Process in Nursing* (7th ed. ed.): West Sussex, England : Wiley Blackwell.

Gopalakrishnan, S., Ganeshkumar, P., Prakash, M., & Amalraj, V. (2012). Prevalence of overweight/obesity among the medical students, Malaysia. *The Medical Journal of Malaysia, 67*(4), 442-444.

Guo, J., Whittemore, R., & He, G. P. (2010). Factors that influence health quotient in Chinese college undergraduates. *Journal of Clinical Nursing, 19*(1-2), 145-155.

Hallberg, I. R. (2008). Surveys. *Nursing Research: Designs and Methods*, 179-189.

Haskin, O. (2013). Bariatrics in Kuwait: Dr Salman Al Sabah. Retrieved from http://www.bariatricnews.net/?q=node/1249

Hillman, C. H., Erickson, K. I., & Kramer, A. F. (2008). Be smart, exercise your heart: exercise effects on brain and cognition. *Nature Reviews. Neuroscience, 9*(1), 58.

Holt, M., & Powell, S. (2017). Healthy universities: a guiding framework for universities to examine the distinctive health needs of its own student population. *Perspectives in Public Health, 137*(1), 53-58.

Hu, F., Liu, Y., & Willett, W. (2011). Preventing chronic diseases by promoting healthy diet and lifestyle: public policy implications for China. *Obesity Reviews, 12*(7), 552-559.

International Diabetes Fedration (IDF). (2013). Diabetes Atlas. *International Diabetes Federation*.

Joanna Briggs Institute (JBI). (2016). Critical Appraisal Tool. Retrieved from http://joannabriggs.org/research/critical-appraisal-tool.html

Kwan, M. Y., Cairney, J., Faulkner, G. E., & Pullenayegum, E. E. (2012). Physical activity and other health-risk behaviors during the transition into early adulthood. *American Journal of Preventive Medicine, 42*(1), 14-20.

Lambourne, K., & Tomporowski, P. (2010). The effect of exercise-induced arousal on cognitive task performance: a meta-regression analysis. *Brain Research, 1341*, 12-24. doi:10.1016/j.brainres.2010.03.091

Landsberg, B., Plachta-Danielzik, S., Lange, D., Johannsen, M., Seiberl, J., & Müller, M. J. (2010). Clustering of lifestyle factors and association with overweight in adolescents of the kiel obesity prevention study. *Public Health Nutrition, 13*(10A), 1708-1715.

LoBiondo-Wood, G., & Haber, J. (2014). *Nursing Research-E-Book: methods and critical appraisal for evidence-based practice*: Elsevier Health Sciences.

Logi Kristjánsson, Á., Dóra Sigfúsdóttir, I., & Allegrante, J. P. (2010). Health behavior and academic achievement among adolescents: the relative contribution of dietary habits, physical activity, body mass index, and self-esteem. *Health Education & Behavior, 37*(1), 51-64. doi:10.1177/1090198107313481

Lupton, J. R., & Townsend, J. L. (2015). A systematic review and meta-analysis of the acceptability and effectiveness of university smoke-free policies. *Journal of American College Health, 63*(4), 238-247.

Maltby, J., Williams, G., McGarry, J., & Day, L. (2014). *Research methods for nursing and healthcare*: Routledge.

Mann, C. (2003). Observational research methods. Research design II: cohort, cross sectional, and case-control studies. *Emergency Medicine Journal, 20*(1), 54-60.

Mayosi, B. M., Flisher, A. J., Lalloo, U. G., Sitas, F., Tollman, S. M., & Bradshaw, D. (2009). The burden of non-communicable diseases in South Africa. *The Lancet, 374*(9693), 934-947.

Melnyk, B. M., & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing & healthcare: a guide to best practice* (2nd ed. ed.). Philadelphia: Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins Health.

Musaiger, A. O., Al-Kandari, F. I., Al-Mannai, M., Al-Faraj, A. M., Bouriki, F. A., Shehab, F. S., . . . Al-Qalaf, W. B. (2014). Perceived barriers to weight maintenance among university students in Kuwait: the role of gender and obesity. *Environmental Health and Preventive Medicine, 19*(3), 207.

Nakhi, M. B., & Eltayeb, H. (2018). Diabetic foot reconstruction using integra® dermal regeneration template: a single center experience in Kuwait. *Wounds, 5*(1).

National Statement on Ethical Conduct in Human Research (NHMRC). (2007). National Statement on Ethical Conduct in Human Research. Retrieved from https://www.nhmrc.gov.au/guidelines-publications/e72

Nelson, M. C., Kocos, R., Lytle, L. A., & Perry, C. L. (2009). Understanding the perceived determinants of weight-related behaviors in late adolescence: a qualitative analysis among college youth. *Journal of Nutrition Education and Behavior, 41*(4), 287-292.

Norwood, S. L. (2010). Research essentials: Foundations for evidence-based practice.

Nöthlings, U., Ford, E. S., Kroeger, J., & Boeing, H. (2010). Lifestyle factors and mortality among adults with diabetes: findings from the European Prospective Investigation into Cancer and Nutrition–Potsdam study. *Journal of Diabetes, 2*(2), 112-117.

Ochsenwald, W. L., Crystal, J. A., Anthony, J. D., & Sadek, D. A. (2018). Kuwait. In Encyclopaedia Britannica. Retrieved from https://www.britannica.com/place/Kuwait

Omu, F. E., Al-Marzouk, R., Al-Kandari, I., Paulraj, D., Rajagopal, M., & John, P. (2015). The prevalence of tobacco products use among Kuwait nursing college students. *Int J Nurs, 2*, 157-167.

Pallant, J. (2013). *SPSS survival manual*: McGraw-Hill Education (UK).

Parahoo, K. (2014). *Nursing research: principles, process and issues*: Macmillan International Higher Education.

Patay, M., Patton, K., Parker, M., Fahey, K., & Sinclair, C. (2015). Understanding motivators and barriers to physical activity. *Physical Educator, 72*(3), 496-517.

Peltzer, K., & Pengpid, S. (2014). Health behaviour and self-reported academic performance among university students: an international study. *Mediterranean Journal of Social Sciences, 5*(27 P2), 998.

Peltzer, K., Pengpid, S., Samuels, T., Özcan, N. K., Mantilla, C., Rahamefy, O. H., . . . Gasparishvili, A. (2014). Prevalence of overweight/obesity and its associated factors among university students from 22 countries. *International Journal of Environmental Research and Public Health, 11*(7), 7425-7441.

Petersen, K. E. N., Johnsen, N. F., Olsen, A., Albieri, V., Olsen, L. K. H., Dragsted, L. O., . . . Egeberg, R. (2015). The combined impact of adherence to five lifestyle factors on all-cause, cancer and cardiovascular mortality: a prospective cohort study among Danish men and women. *113*(5), 849-858. doi:10.1017/S0007114515000070

Polit, D. F., & Beck, C. T. (2017). *Resource Manual for Nursing Research: generating and assessing evidence for nursing practice* (Tenth edition. ed.): Philadelphia: Wolters Kluwer.

Public Authority for Applied Education and Training (PAAET). (2017). Public Authority for Applied Education and Training Records. Retrieved from http://www.paaet.edu.kw/mysite/Default.aspx?tabid=4229&language=ar-KW

Public Authority for Applied Education and Training (PAAET). (2018). Public Authority for Applied Education and Training Records. Retrieved from http://www.paaet.edu.kw/mysite/Default.aspx?tabid=4229&language=ar-KW

Pullman, A., Masters, R., Zalot, L., Carde, L., Saraiva, M., Dam, Y., . . . Duncan, A. (2009). Effect of the transition from high school to university on anthropometric and lifestyle variables in males. *Applied Physiology, Nutrition, and Metabolism, 34*(2), 162. doi:10.1139/H09-007

Rankins, D., Reddy, P., Timoshanko, A., & Dunbar, J. (2010). *Life! in Australia: translating prevention research into a large scale intervention.* Paper presented at the PHCRED 2010: Proceedings of the 2010 Primary Health Care Research Evaluation and Development conference.

Raosoft. (2004). Sample size calculator. *Available from: www. raosoft. com/samplesize*.

Ruthig, J. C., Marrone, S., Hladkyj, S., & Robinson-Epp, N. (2011). Changes in college student health: Implications for academic performance. *Journal of College Student Development, 52*(3), 307-320.

Sanderson, S., Tatt, I. D., & Higgins, J. (2007). Tools for assessing quality and susceptibility to bias in observational studies in epidemiology: a systematic review and annotated bibliography. *International Journal of Epidemiology, 36*(3), 666-676.

Sasazuki, S., Inoue, M., Iwasaki, M., Sawada, N., Shimazu, T., Yamaji, T., . . . Group, J. S. (2012). Combined impact of five lifestyle factors and subsequent risk of cancer: the Japan Public Health Center Study. *Preventive Medicine, 54*(2), 112-116.

Schneider, Z., & Whitehead, D. (2016). *Nursing and midwifery research: methods and appraisal for evidence-based practice* (5th edition. ed.): Chatswood, NSW: Elsevier Australia a division of Reed International Books Australia Pty Ltd.

Sharara, E., Akik, C., Ghattas, H., & Obermeyer, C. M. (2018). Physical inactivity, gender and culture in Arab countries: a systematic assessment of the literature. *BMC Public Health, 18*(1), 639.

Singleton, R. A. (2007). Collegiate alcohol consumption and academic performance. *Journal of Studies on Alcohol and Drugs, 68*(4), 548-555. doi:10.15288/jsad.2007.68.548

Tirodimos, I., Georgouvia, I., Savvala, T., Karanika, E., & Noukari, D. (2009). Healthy lifestyle habits among Greek university students: differences by sex and faculty of study.

Trichopoulou, A., Martínez-González, M. A., Tong, T. Y., Forouhi, N. G., Khandelwal, S., & Prabhakaran, D. (2014). Definitions and potential health benefits of the Mediterranean diet: views from experts around the world. *BMC Med, 12*. doi:10.1186/1741-7015-12-112

van der Riet, P., Rossiter, R., Kirby, D., Dluzewska, T., & Harmon, C. (2015). Piloting a stress management and mindfulness program for undergraduate nursing students: student feedback and lessons learned. *Nurse Education Today, 35*(1), 44-49.

van Rensburg, & Surujlal, J. (2013). Gender differences related to the health and lifestyle patterns of university students. *Health SA Gesondheid (Online), 18*(1), 1-8.

van Rensburg, C. J., Surujlal, J., & Dhurup, M. (2011). Exploring wellness practices and barriers: a qualitative study of university student-athletes: physical activity, health and wellness. *African Journal for Physical Health Education, Recreation and Dance, 17*(2), 248-265.

Vella-Zarb, R. A., & Elgar, F. J. (2009). The ‘freshman 5’: a meta-analysis of weight gain in the freshman year of college. *Journal of American College Health, 58*(2), 161-166.

Wald, A., Muennig, P. A., O'Connell, K. A., & Garber, C. E. (2014). Associations between healthy lifestyle behaviors and academic performance in US undergraduates: A secondary analysis of the American College Health Association's National College Health Assessment II. *American Journal of Health Promotion, 28*(5), 298-305.

Wang, H., Dwyer-Lindgren, L., Lofgren, K. T., Rajaratnam, J. K., Marcus, J. R., & Levin-Rector, A. (2013). Age-specific and sex-specific mortality in 187 countries, 1970–2010: a systematic analysis for the global burden of disease study 2010. *Lancet, 380*. doi:10.1016/S0140-6736(12)61719-X

Wei, C.-N., Harada, K., Ueda, K., Fukumoto, K., Minamoto, K., & Ueda, A. (2012). Assessment of health-promoting lifestyle profile in Japanese university students. *Environmental Health and Preventive Medicine, 17*(3), 222-227.

Weissman, J., Preston, S., Sebekos, E., Latorre, W., Alsaif, B., Krupp, K., & Darrow, W. (2016). Associations between health and academic success at a Florida university: an exploratory cross-sectional study. *Florida Public Health Review, 13*, 91-98.

World Health Organization (WHO). (2013). Diabetes Factsheet. Retrieved from http://www.who.int./mediacentre/factsheets/fs321/en/

World Health Organization (WHO). (2016). The top 10 causes of death. Retrieved from http://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death

World Health Organization (WHO). (2018). Global Health Observatory Data Repository. Retrieved from https://data.worldbank.org/indicator/SH.PRV.SMOK.MA?end=2016&start=2000&view=chart

Yahia, N., Wang, D., Rapley, M., & Dey, R. (2016). Assessment of weight status, dietary habits and beliefs, physical activity, and nutritional knowledge among university students. *Perspectives in Public Health, 136*(4), 231-244.

Zaghloul, S., Al-Hooti, S. N., Al-Hamad, N., Al-Zenki, S., Alomirah, H., Alayan, I., . . . Jackson, R. T. (2013). Evidence for nutrition transition in Kuwait: over-consumption of macronutrients and obesity. *Public Health Nutrition, 16*(4), 596. doi:10.1017/S1368980012003941

APPENDICES

Appendix 1: Keywords search

EBSCOhost

Sunday, July 01, 2018 10:08:41 PM

#	Query	Limiters/Expanders	Last Run Via	Results
S20	S15 AND S16 AND S17	Limiters - Published Date: 20070101-20181231 Narrow by Language: - english Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	147
S19	S15 AND S16 AND S17	Limiters - Published Date: 20070101-20181231 Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	160
S18	S15 AND S16 AND S17	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	201
S17	S9 OR S10 OR S11	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	2,481,541
S16	S2 OR S3 OR S4 OR S5 OR S12 OR S14	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	152,988
S15	S1 OR S6 OR S7 OR S8	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	45,570
S14	"lifestyle characteristics"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	1,251
S13	"health habits"	Search modes -	Interface - EBSCOhost	1,597

		Boolean/Phrase	Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	
S12	(MH "Life Style")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	65,548
S11	"evaluating"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	234,905
S10	"assess"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	952,907
S9	"assessment"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	1,535,991
S8	(MH "Students, College")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	15,749
S7	(MH "Students, Undergraduate")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	2,734
S6	(MH "Students")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	27,240
S5	"healthy habits or lifestyle"	Search modes - SmartText Searching	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	15,664

S4	"healthy characteristics"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	14
S3	"health behavi*rs or healthy lifestyle or health practices"	Search modes - SmartText Searching	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	819
S2	(MH "Life Style") OR "lifestyle"	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	141,374
S1	"college students or university students or undergraduates" OR (MH "Students, College") OR (MH "Students, Undergraduate")	Search modes - Boolean/Phrase	Interface - EBSCOhost Research Databases Search Screen - Advanced Search Database - CINAHL;MEDLINE	18,376

Appendix 2: Summary of literature

	Authors & Date	Aim	Sample	Methods	Findings	Strengths/Weaknesses	Level of Evidence
1	Aceijas et al. (2017)	- To investigate students' health-related lifestyle and to identify barriers and social determinants of healthier lifestyles.	- 468 students. - UK.	- Mixed-method study comprising a cross-sectional online survey, two focus groups and three in-depth interviews. - Instrument: 67-items questionnaire covered socio-demographic data, physical activity, alcohol misuse, mental wellbeing and drug misuse.	- 70% of participants were females. - 60% of participants were physically inactive. - More than half of participants had unbalanced diet. - Around 58% of participants exhibited excessive alcohol and tobacco consumption. - Environmental and societal barriers such as smoking, drug use, financial struggles were Identified. - Lack of gym used was noted due to the cost of membership.	- Clear method to tackle this issue. -No limitations were mentioned. - Clear line of reporting on ethical approval.	II
2	Alkazemi, (2018)	-To examine in young Kuwaiti women nutritional behaviours, BMI and weight perception with eating disorder.	- 1.147 female students. - Kuwait.	- Cross-sectional descriptive study. - Instrument: Eat-26 subscales.	- Less than half of sample were overweight and obese (25% & 10% respectively). - Almost half of participant was at risk of disordered eating. - Disordered eating attitudes are a significant potential problem among college female students in Kuwait. - The prevalence of disordered eating attitudes could be due to a combination of nutritional behaviours and lifestyle of undergraduates.	- High response rate (92%). - Large sample size. - Convenience sample. - Self-reported data. - social and cultural factors were not included in this study. - Clear line of reporting on ethical approval. - Data were collected from 14 colleges in Kuwait.	II
3	Al-Kandari, & Vidal, (2007)	- Assessed healthy lifestyle features and academic performance.	-224 nursing students. - Kuwait.	- Cross-sectional descriptive study. - Instrument: Health-promoting Lifestyle Profile.	- Academic performance does not relate with healthy behaviours. - Significant relation between enrolments level in nursing courses & healthy behaviours. - Males had higher mean in health-promoting lifestyle profile.	- Bachelor's degree students were not involved. - Small sample size. - Student might give socially desirable responses. - Authors suggest replicating study in different colleges. - Clear line of reporting on ethical approval.	II
4	Al-Sayegh, (2016)	-To benchmark students' health across academic units, thereby information student health services and to establish a base for students' serial health assessments across successive years of their programmes,	- 176 students - Kuwait.	-Cross-sectional study. - Instrument: Questionnaire consisted of 4 sections: demographic data, health habits, common health condition and quality of life over the past month.	- 60% of participants were females. - Male participants rated higher than female participants in smoking and drinking. - Male participants were more physically active than female participants. - Majority of participants did not make healthier choices when selecting meals. -Female participants more confident in handling stress than male participants.	- Convenience sample. - Self-reported data. -Small sample size. - Clear line of reporting on ethical approval. - It is the first study to evaluate quality of life of university students in Kuwait.	II

					- Majority of participants reported poor quality of sleep and rated themselves as having unhealthy lifestyle behaviours.		
5	Al-Sejari, (2017)	- To examine the association between Kuwaiti male university students' sociocultural characteristics, physical activities, dietary, smoking habits and blood profile for metabolic syndrome components.	- 262 male students. - Kuwait.	- Cross-sectional descriptive study. - Instrument: Adopted questionnaire which included 4 sections (sociocultural data, dietary habits, physical activities, and smoking habits)	- A significant association between sociocultural variables and metabolic syndrome components. - More than half of sample were overweight and obese (32% & 22% respectively). - Around 85% of participants were physically active. - Only 10% of participants reported low income and had financial problems. - 60% were non-smokers.	- Self-reported data. - Convenient non-randomised opportunistic sample. - Clear line of reporting on ethical approval.	II
6	Can et al. (2008)	- To identify the similarities and differences between nursing and non-nursing students in their health-promoting practices.	- 1616 students. - Istanbul, Turkey.	- Cross-sectional descriptive study. - Instrument: Health-promoting Lifestyle Profile.	- Nursing students scored higher than non-nursing students in most subscales except spiritual growth and physical activity. - Students indicated health responsibility but poorer stress management. - Health-promoting lifestyle behaviours were better in females (physical activity, nutrition & stress management). - Lower health score was noted among students living in dormitory or with friends. - Better health found in students with better income. - The majority of the participants were non-smokers.	- Self-reported data. - Social desirable responses. - Authors stressed the importance to explore this issue by using qualitative approach. - Small size of male participants in nursing group. - Clear line of reporting on ethical approval.	II
7	Chanakira et al. (2014)	-To explore university students' perspectives on factors and mechanisms that influence risky sexual behaviours among university students in the United Kingdom.	- 20 students. -UK.	- Qualitative research. - Data collection: Via telephone interviews.	- All students viewed alcohol over-consumption is a key role in facilitating sexual encounters. - Some students outlined that university lifestyle can provide easy access to risky sexual behaviours.	- Small sample size that affects feasibility of results. - The lack of visual contact with Students might compromise the quality of data. - The lack of enough studies on this issue.	II
8	Dawson et al. (2007)	- To examine gender differences in the health and lifestyle behavioural choices of Canadian university students.	- 638 students. - Canada.	- Cross-sectional survey. - Instrument: Questionnaire consisted of 3 categories: demographic data, lifestyle behaviours and general health screening.	- 74% of participants were females. - Male participants exhibited better general health status than female participants. - Male participants alcohol consumption is more than female participants. - Majority of participant had not yet involved in sexual activities therefore safe sex practices were not considered in this study.	- Forced-choice format of questionnaire might affect the results. - Most students were in their first year. - Clear line of reporting on ethical approval.	II
9	Deliens et al. (2013).	- To identify weight & health behaviour related correlates of academic performance.	- 101 students. - Belgium.	- Longitudinal, Cohort study. (1 year) - Instrument: Questionnaire developed from 3 other surveys (health behaviour in school-aged children survey, health and behaviour survey & Flemish physical activity survey).	- Weight gain & unhealthy nutritional behaviours can reduce GPA, alcohol consumption too. - No significant difference between males and females health habits (physical activity and nutritional behaviours).	- Convenience small sample. - 27 students quit university and did not complete their participation in the study. - No information about validity & reliability test. - No information on ethical approval.	II

10	Deliens et al. (2014)	- To explore which factors influence Belgian university students' eating behaviour and to collect ideas and recommendations in order to facilitate the development of effective and tailored intervention programs aiming to improve healthy eating behaviours in university students.	-35 students. -Belgium.	- Qualitative research. - Data collection: Via five focus group discussions.	- Students believed that self-discipline may have an influence on their eating behaviour. - Students strongly believed that eating choices during stressful periods can be affected. - Students believed that a certain dietary knowledge is important to make healthy choices. - Students stated that a higher caloric intake is needed when exercising. - Group or peer pressure was explained to be an influencing factor of individual food choices. - Social support, students revealed that support from family and friends can influence their eating behaviour.	- Using focus groups is an important strength of this explorative study. - Students were volunteers that might induce a selection bias. - Focus groups were conducted at one university. - Authors recommended using quantitative approach and larger sample for future studies.	II
11	Deliens et al. (2015)	- To identify determinants of physical activity and sedentary behaviour in Belgian university students and to collect ideas and recommendations to increase physical activity and decrease sedentary behaviours in university students.	- 46 students. - Belgium.	- Qualitative research. - Data collection: Via seven focus group discussions.	- Participants claimed that self-discipline may influence their physical activity and sedentary behaviour. - Participants supposed that examination and stressful periods can affect their willingness to maintain an active life. - Participants claimed that sports knowledge and experience contributed to their present physical activity and sedentary behaviour. - Group or peer pressure was explained to be an influencing factor of individuals' physical activity and sedentary behaviour. - Social support, students revealed that support from family and friends is important to maintain an active lifestyle.	- Using focus groups is an important strength of this explorative study. - Students were volunteers that might induce a selection bias. - Focus groups were conducted at one university. - Authors recommended using quantitative approach and larger sample for future studies.	II
12	El Ansari, & Stock, (2010)	- To investigate the relationship between students' health behaviours and academic satisfaction.	- 380 students. - UK.	- Cross-sectional study. - Instrument: Self-reported questionnaire adopted from published questionnaires.	- Females more satisfied with their educational experience. - Females reported excellent general health compared to males. - No significant link between health attitudes and grades. - Approximately 40% of participants experienced income insufficiency.	- Small convenience sample and recall bias. - Measured grades from a single topic only. - the use of empirical measures of health. - Clear line of reporting on ethical approval. - No information about validity & reliability test.	II
13	El Ansari et al. (2011)	- To assess a range of health behaviours and lifestyle characteristics from seven universities in UK.	- 3.706 students. - UK.	- Cross-sectional epidemiological study. - Instrument: Self-developed questionnaire that consisted of questions which covered demographic data, nutritional behaviours, physical activity, restful sleep, tobacco smoking, use of illicit drugs and binge drinking.	- 78% of participants were females. - female participants rated higher than male participants in nutritional behaviours. - No gender differences observed in getting enough sleep. - Students do not complain of sleep problems. - Male participants rated higher than female participants in smoking and drinking. - Male participants were more physically active than female participants.	- Good response rate (80%). - Good sample size. - Self-reported data. - Clear line of reporting on ethical approval. - Some variables were assessed by single item measures. - Convenience sample.	II

14	Flueckiger et al. (2014).	- To investigate health behaviours, such as sleep & physical activity, daily general emotions are related to academic performance, during stressful examination period.	- 72 students. -Switzerland	- Prospective, intensive longitudinal cohort survey. (7 consecutive days) - Instrument: Self-developed online survey.	- Overall sleep quality predicted academic achievement. - No significant relation between physical activity & academic achievement. - No relation between daily general emotions & academic achievement.	- Self-report data including grades. - Small sample size. - Data collection conducted during examination period that could affect results. - No information about validity & reliability test. - Clear line of reporting on ethical approval.	II
15	Guo, Whittemore, & He (2010)	- To describe the health quotient of Chinese undergraduates.	- 1874 students. - China.	- Cross-sectional descriptive study. - Instrument: Health Quotient Profile Questionnaire that included 5 dimensions: self-care, health knowledge, lifestyle, mental health and life skills.	- Chinese students reported positive self-care ability, lifestyle, mental health and life skills. - Chinese reported negative score in knowledge of health. - 62% of participants lived in Rural areas.	- High response rate (93%). - Good sample size. - Self-reported data.	II
16	Nelson et al. (2009)	- To identify key factors underlying college weight gain, nutrition, and physical activity.	- 50 students. - USA.	- Qualitative research. - Data collection: Via six focus groups and one-on-one interviews.	- The availability of food and reasonable prices of good can affect students' weight, diet and physical activity. - Alcohol consumption and partying can make students consume more calories and decrease their physical activity. - Lack of time and stress eating can affect students' weight, diet and physical activity.	- Small sample size that affects feasibility of results. - Authors suggested conducting research that aiming to find the relation between their identified factors and students' weight gain, nutrition, and physical activity.	II
17	Peltzer, & Pengpid, (2014)	- To investigate health correlates of academic performance among university students from 26 low and middle income and emerging economy countries.	-20222 students. - Global study (26 counties).	- Cross-sectional study. - Instrument: Questionnaire adopted from (international physical activity questionnaire & centres for epidemiological studies depression scale).	- No significant relation between adequate sleep & GPA. - %50 of students reported sleeping for 6 hours or less. - Healthy dietary behaviours associated with better GPA.	- Self-reported data. - High response rate (90%). - Clear line of reporting on ethical approval.	II
18	van Rensburg, & Surujlal, (2013)	- To investigate gender differences in students' health and lifestyle.	- 381 students. - South Africa.	-Cross-sectional study. - Instrument: Student health and lifestyle questionnaire.	- 71% of participants were females. - Males experienced lesser symptoms of gastrointestinal, respiratory and total health problems than females. - Females were more physically active than males. - Males consume more alcohol than females. - Females used tobacco more than males. - Around 80% of participants lived off-campus.	- High response rate (95%). - Clear line of reporting on ethical approval.	II
19	Ruthig et al. (2011).	- To examine changes in health behaviours & health perceptions & their impact on academic performance.	- 203 students. - USA.	- Longitudinal, Cohort study. (1 year) - Instrument: Cohen-Hoberman inventory of health and physical symptoms.	- Increasing physical activities lead to better academic performance in women. - Increase tobacco use reduces GPA in men.	- Self-reported data. - Convenience sample. - Small sample of 53 male participants. - No information about validity & reliability test. - No information on ethical approval.	II

20	Tirodimos et al. (2009)	- To assess the nutritional behaviours and some health-related behaviours and beliefs of Greek students.	- 300 students. - Greece.	- Cross-sectional survey. - Instrument: Questionnaire consisted of 4 categories: demographic data, health habits, nutritional knowledge and nutritional habits.	- Almost equal percentage of male and female participants. - Females scores higher than males in nutritional knowledge and habits. - more than 50% of the participants were smokers.	- High response rate (87%). - No limitations were mentioned. - Small sample size. - Data collection from one university. - Self-reported data.	II
21	Wald et al. (2014).	- To determine the prevalence of adherence to widely disseminated clinical and health recommendations for selected healthy lifestyle behaviours.	- 16,095 students. - USA.	- Cross-sectional observational study. - Instrument: National College Health Assessment II.	- Students who adhere to adequate sleep, physical activities & eating fruits achieve higher GPA. - Students showed remarkable adherence to health recommendations.	- Self-reported GPA - Large representative sample from multiple universities. - Clear line of reporting on ethical approval.	II
22	Wang, Xing, & Wu, (2013)	- To analyse to what extent university students exhibit healthy lifestyles and which sociodemographic variables influence healthy lifestyles.	- 4809 students. - China.	- Cross-sectional descriptive study. - Instrument: Healthy Lifestyle Scale for University Students.	- Total healthy lifestyle score was significantly related to both parents' education level and monthly income. - Female students display an overall healthier profile. - Freshmen display healthier profile than other groups. - Students from medical and nursing universities exhibited healthier profile than other universities. - Significant number of students do not have a healthy routine.	- Self-reported data. - Interviewers' explanations of questionnaire items may have influenced the results. - High response rate (95%). - Good sampling method and sample size. - Clear line of reporting on ethical approval.	II
23	Wei et al. (2012)	- To determine whether there were any relationships between Japanese students' demographic variables with the health-promoting lifestyle profile.	- 314 students. - Japan.	- Cross-sectional descriptive study. - Instrument: Health-promoting Lifestyle Profile.	- Female students practise better health-promotion but male students were better in physical activity. - First and second years students showed higher score of health profile than third and fourth years students. - A significant relation between income and health profile. - Students who live with parents have better nutritional balance in their daily meals.	- Self-reported data. - No limitations were mentioned by the authors. - Authors pointed-out for more research into health promotion behaviours. - High response rate (93%). - Clear line of reporting on ethical approval.	II
24	Weissman et al. (2016)	- To explore the association between college students' perception of their overall physical and psychological health and four measures of academic performance.	- 265 students - USA.	- An exploratory cross-sectional study. - Instrument: Self-developed questionnaire that consisted of 65-items which cover demographic data, health status, academic performance and final grades.	- Around 80% rate their physical health between good to excellent. - Significant relation between poor psychological health and dropping out of university. - Students who rated poor physical health usually enrolled in more topics. - There is strong relation between low grades and missing classes. - around 70% of participants live off-campus which add more financial weight.	- Convivence sample. - Using a non-validated tool. - Study conducted in one university with small sample size therefore results cannot be generalised. - No information on ethical approval.	II
25	Yahia et al. (2016)	- To assess weight status, dietary habits, Physical activity, dietary beliefs, and nutrition knowledge among a sample of students from Central Michigan University	- 237 students. - USA.	- Cross-sectional survey. - Instrument: Self-developed questionnaire that consisted of 56 questions which covered demographic data, food consumption, dietary habits, physical activity and lifestyle, dietary beliefs, and nutritional knowledge.	- Approximately 75% of participants were females. - Majority of participants were within the healthy weight range. - Females engaged in healthier nutritional behaviours than males. - Majority of participants were not physically active.	- Small sample size. - Data collection from a sample university. - Good information on ethical approval.	II

Appendix 3: HLSUS questionnaire

"Evaluating the Lifestyle Behaviours of Undergraduate Nursing Students in Kuwait"

LETTER OF INTRODUCTION رسالة تعريفية
(College of Nursing - PAAET - Kuwait)

أعزائي الطلبه

أقدم لكم السيد عبدالله يعقوب حسن وهو طالب أبحاث في كليه التمريض والعلوم الصحيه – جامعه فليندز – أستراليا
هو يقوم حالياً بمجموعة أبحاث حول تقييم أسلوب ونمط الحياه الخاص بطلبه كليه التمريض في الكويت
ويود أن يدعوكم إلى المساعدة في هذا المشروع من خلال استكمال استبيان يغطي جوانب معينه من هذه الأبحاث. لن يستغرق أستكمال الأستبيان أكثر من 15 دقيقه. الباحث يود أيضاً أستخدام استبيان مخصص لتقييم أسلوب ونمط الحياه الصحي لطالبه الجامعات
يجب التأكد من أن أي معلومات مقدمه سيتم التعامل معها بأقصى قدر من السريه ولن يتم التعرف على المشاركين بشكل فردي في نتائج الأطروحه أو أي تقارير أخرى. وبطبيعه الحال، أنت حر تماما في وقف مشاركتك في أي وقت أو رفض الإجابه عن أسئله معين

يجب توجيه أي استفسارات لديك بشأن هذا البحث على البريد الإلكتروني التالي
(dean.whitehead@flinders.edu.au)

شكراً لإهتمامكم ومساعدتكم

تفضلوا مني فائق التقدير و الاحترام

المرشد العلمي والباحث الاكاديمي
د. دين وايت هيد

وقد تمت الموافقه على هذا المشروع البحثي من قبل لجنه البحوث الاجتماعيه والسلوكيه لجامعه فليندرز (مشروع رقم 7872). لمزيد من المعلومات حول الموافقه الأخلاقيه للمشروع يمكنك الاتصال بالموظف التنفيذي للجنه عن طريق البريد الإلكتروني
(human.researchethics@flinders.edu.au)

Dear Students

This letter is to introduce Abdullah Hasan who is a nursing research student at the College of Nursing and Health Sciences in Flinders university – Australia.
He is undertaking research leading to the production of a thesis or other publications on the

subject of healthy lifestyle of undergraduate students at College of Nursing in Kuwait.
He would like to invite you to assist with this project by completing a questionnaire, which covers certain aspects of this topic. This process will take no more than 15 minutes. He intends to use the Healthy Lifestyle Scale for University Students.
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. You are, of course, entirely free to discontinue your participation at any time or to decline to answer particular questions.
Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on (+61 8 8201 3149) e-mail (dean.whitehead@flinders.edu.au)

Thank you for your attention and assistance.

Yours Sincerely,

Academic Supervisor:

Dr. Dean Whitehead

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 7872). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email (human.researchethics@flinders.edu.au)

"Evaluating the Lifestyle Behaviours of Undergraduate Nursing Students in Kuwait"

Demographic Data

يرجى الاجابة على جميع الاسئله

* 1. How old are you? العمر

- [ ] 18-24 years old
- [ ] 25-30 years old
- [ ] 30-35 years old

2. What is your gender? الجنس

- [ ] Male ذكر
- [ ] Female أنثى

3. What is your nationality? الجنسيه

- [ ] Kuwaiti كويتي
- [ ] Non-Kuwaiti غير كويتي

4. What is your marital status? الحاله الأجتماعيه

- [ ] Single أعزب
- [ ] Married متزوج
- [ ] Widowed أرمل
- [ ] Divorced مطلق

5. What is your father's educational level? المستوى التعليمي للأب

- [ ] Lower the high school أقل من المدرسه الثانويه
- [ ] High school الثانويه العامه
- [ ] Associate degree (Diploma) دبلوم
- [ ] Bachelors degree درجه البكالوريوس
- [ ] Masters' degree درجه الماجستير
- [ ] Doctorate degree درجه الدكتوراه

6. What is your mother's educational level? المستوى التعليمي للأم

- [ ] Lower than high school أقل من المدرسة الثانوية
- [ ] High school المدرسة الثانوية
- [ ] Associate degree (Diploma) دبلوم
- [ ] Bachelors degree درجة البكالوريوس
- [ ] Masters' degree درجة الماجستير
- [ ] Doctorate degree درجة الدكتوراه

7. How much is your family income if you are living with your parents, or how much is your monthly income? الدخل الشهري للأسرة

- [ ] Under 500KD
- [ ] Between 500-1000KD
- [ ] Between 1000-1500KD
- [ ] Between 1500-2000KD
- [ ] Over 2000KD

8. Which nursing programme are you enrolled in? البرنامج الدراسي الملتحق به

- [ ] Associate Degree in Nursing (ADN) دبلوم التمريض العام
- [ ] Bachelors of Science in Nursing (BSN) بكالوريوس التمريض
- [ ] Post-Basic Nursing programme برنامج البكالوريوس التكميلي
- [ ] Bachelors of School Nursing بكالوريوس التمريض المدرسي

9. In which academic year are you studying? السنة الدراسية

- [ ] First الأولى
- [ ] Second الثانية
- [ ] Third الثالثة
- [ ] Fourth الرابعة

"Evaluating the Lifestyle Behaviours of Undergraduate Nursing Students in Kuwait"

Exercise Behaviour

10. Do you exercise vigorously for 30 minutes or more at least 3 times per week?
ممارسة الرياضة بحدة عالية لمدة 30 دقيقة على الأقل ثلاث مرات في الأسبوع باستثناء الاحماء

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes احياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

11. Do you warm up before vigorous exercise?
الاحماء قبل ممارسة الرياضة

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes احياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

12. Do you take part in a light–moderate physical activity (i.e. brisk walking) 30–60 min at least 3 times per week?
المشاركة في نشاط بدني خفيف الى معتدل مثل (المشي السريع) لمدة 30-60 دقيقة على الأقل ثلاث مرات في الأسبوع

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes احياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

13. Do you exercise within 30 min after meals?
ممارسه الرياضه في غضون 30 دقيقه بعد وجبات الطعام

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

"Evaluating the Lifestyle Behaviours of Undergraduate Nursing Students in Kuwait"

Regular Behaviour

14. Do you eat breakfast daily?
تناول وجبة الإفطار يومياً

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

15. Do you eat three meals daily at regular intervals?
تناول ثلاث وجبات يوميا على فترات منتظمة

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

16. Do you balance between studying and resting times?
تخصيص اوقات منتظمة للدراسة مع اخذ اوقات قصيرة للراحة

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

17. Do you get enough sleep daily (6-8 hours)?
الحصول على قسط كافي من النوم يومياً 6-8 ساعات

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

Nutrition Behaviour

18. Do you pay attention to replenish your body with fluids during exercise?
الحرص على شرب سوائل كافيه أثناء ممارسه الرياضه

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

19. Do you drink at least 800mL (5 disposable paper cups) of water daily?
شرب ما لا يقل عن 800مل من الماء يوميا بما يعادل 5 اكواب صغيرة

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

20. Do you eat foods rich in dietary fibers (e.g. fruit, vegetables)?
تناول الأطعمة الغنية بالألياف الغذائية مثل الفواكه والخضراوات

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

21. Do you consciously choose a diet low in fat, saturated fat, salt, and cholesterol?
الحرص على اختيار نظام غذائي منخفض بالدهون او الدهون المشبعه او الملح والكوليسترول

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

Health Risk Behaviour

22. Do you drink or consume soft drinks and canned juices excessively (more than one can per day)?
استهلاك المشروبات الغازيه و العصائر المعلبة بشكل مفرط، أكثر من علبة في اليوم

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

23. Do you smoke or consume tobacco, cigarettes, e-cigarettes, shisha or other forms of tobacco?
استهلاك وتدخين السجائر، السجائر الالكترونيه، الشيشه أو اى منتج يحتوى على مادة التبغ

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

24. Do you listen continuously to headphones for more than 30 min? استخدام سماعات توضع داخل الاذن لمدة تزيد عن 30 دقيقه متواصله

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

25. Do you read or use the computer continuously for more than 1 hour without short resting time?
قراءه أو استخدام الكمبيوتر بشكل مستمر لأكثر من 1 ساعه بدون تخصيص وقت للراحة القصيره

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

Health Responsibility

26. Do you go to a doctor promptly when unusual signs or symptoms appear?
الذهاب إلى الطبيب فورا عند ظهور أي علامات أو أعراض غير طبيعية

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

27. Do you comply with the doctor's advice and treatment?
الألتزام بالعلاج والأمتثال لنصائح الطبيب

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

28. Do you brush your teeth and use dental floss after meals?
استخدم فرشاة الأسنان و خيط الأسنان بعد وجبات الطعام

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

29. Do you wash your hands before meals?
غسل اليدين قبل وجبات الطعام

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

30. Do you cover your mouth and nose when sneezing or coughing?
تغطيه الفم والأنف عند العطس أو السعال

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

31. Do you leave public environments (e.g. classroom, library, laboratory) clean after use?
المحافظه على نظافة المرفقات العامة والدراسية بعد الاستخدام مثل الفصول الدراسية ،المكتبات،الكافتيريا والمختبرات

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

Social Support

32. Do you actively help your classmates in their trouble?
الحرص على تقديم المساعده لزملائك عند الحاجه

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes احياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

33. Do you keep in touch with your relatives and friends?
المحافظه على صله الرحم وزيارة الأصدقاء

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes احياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

34. Do you take part in group activities with your classmates?
الحرص على المشاركه في الأنشطه الطلابيه

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes احياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

35. Do you talk about your troubles with others?
التحدث مع زملائك عن المشاكل الخاصه بك

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

36. Do you pay attention to others' feelings when handling affairs?
إظهار الاهتمام لمشاعر الآخرين عند التعامل معهم او التحدث عن مشاكلهم الخاصه

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes احياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

37. Do you express your own feelings in an inoffensive manner? التعبير عن مشاعرك و آرائك بطريقه غير جارحة او مستفزة لزملائك

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes احياناً
- [ ] Rarely نادراً
- [ ] Never ابداً

Stress Management

38. Do you keep time for relaxation every day?
تخصيص وقتا للاسترخاء يومياً

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

39. Do you accept unchangeable things in your life?
تقبل الأشياء الغير قابله للتغيير في حياتك مثل القضاء والقدر

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

40. Do you make an effort to control your emotional changes?
الحرص على مراقبة التغيرات العاطفيه المفاجئه والتحكم بها مثل نوبات الغضب والزعل او الاحساس بعدم التقدير

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

41. Do you plan time for studying and leisure activities?
عمل جدول زمني لتخصيص أوقات للدراسه و أوقات اخرى للأنشطه الترفيهيه المختلفه

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

42. Do you remain unruffled and respond calmly to frustrations?
الاستجابه بهدوء وعقلانيه لضغوطات الحياة وعند الاحساس بالظلم او الاحباط.

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

Life Appreciation

43. Do you accept new experiences and challenges with pleasure?
قبول التجارب والتحديات الجديدة بكل سرور

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

44. Do you feel content?
القناعه الشخصيه والشعور براحه البال والطمأنينه

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

45. Do you make an effort to take interest and be challenged in daily studies and life?
الحرص على البحث الدائم عن تحديات جديدة في كافة المستويات الدراسيه والرياضيه والأجتماعية

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

46. Do you make an effort to feel growth in a positive direction?
الحرص على تطوير الذات وتنميه المهارات على المستوى الشخصي

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

47. Do you clarify your own learning purposes?
تحديد الأهداف الدراسية

- [ ] Always دائماً
- [ ] Usually عادة
- [ ] Sometimes أحياناً
- [ ] Rarely نادراً
- [ ] Never أبداً

Appendix 4: SBREC Approval

7872 SBREC Final approval notice (21 March2018)

Human Research Ethics

Wed 21/03/2018 10:16 AM

To:Abdullah Hasan <hasa0049@flinders.edu.au>; Dean Whitehead <dean.whitehead@flinders.edu.au>; Wendy Abigail <wendy.abigail@flinders.edu.au>;

Importance: High

Dear Abdullah,

The Chair of the Social and Behavioural Research Ethics Committee (SBREC) at Flinders University considered your response to conditional approval out of session and your project has now been granted final ethics approval. This means that you now have approval to commence your research. Your ethics final approval notice can be found below.

FINAL APPROVAL NOTICE

Project No.:	**7872**
Project Title:	Evaluating the Healthy Lifestyle Behaviours of Undergraduate Nursing Student's in Kuwait
Principal Researcher:	Mr Abdullah Hasan
Email:	hasa0049@flinders.edu.au
Approval Date:	21 March 2018
Ethics Approval Expiry Date:	**30 June 2019**

The above proposed project has been **approved** on the basis of the information contained in the application, its attachments and the information subsequently provided.

RESPONSIBILITIES OF RESEARCHERS AND SUPERVISORS

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 SBREC contact details, listed below, are included in the footer of all letters of introduction and information sheets.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number \INSERT PROJECT No. here following approval!). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2036 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 (March 2007)* an annual progress report must be submitted each year on the **21 March** (approval anniversary date) for the duration of the ethics approval using the report template available from the Managing Your Ethics Approval SBREC web page. *Please retain this notice for reference when completing annual progress or final reports.*

If the project is completed *before* ethics approval has expired please ensure a final report is submitted immediately. If ethics approval for your project expires please submit either (1) a final report; or (2) an extension of time request and an annual report.

Student Projects

The SBREC recommends that current ethics approval is maintained until a student's thesis has been submitted, reviewed and approved. This is to protect the student in the event that reviewers recommend some changes that may include the collection of additional participant data.

Your first report is due on **21 March 2019** or on completion of the project, whichever is the earliest.

3. Modifications to Project

Modifications to the project must not proceed until approval has been obtained from the Ethics Committee. Such proposed changes / modifications include:

- change of project title;
- change to research team (e.g., additions, removals, principal researcher or supervisor change);
- changes to research objectives;
- changes to research protocol;
- changes to participant recruitment methods;
- changes / additions to source(s) of participants;
- changes of procedures used to seek informed consent;
- changes to reimbursements provided to participants;
- changes / additions to information and/or documentation to be provided to potential participants;
- changes to research tools (e.g., questionnaire, interview questions, focus group questions);
- extensions of time.

To notify the Committee of any proposed modifications to the project please complete and submit the *Modification Request Form* which is available from the Managing Your Ethics Approval SBREC web page. Download the form from the website every time a new modification request is submitted to ensure that the

most recent form is used. Please note that extension of time requests should be submitted prior to the Ethics Approval Expiry Date listed on this notice.

Change of Contact Details

Please ensure that you notify the Committee if either your mailing or email address changes to ensure that correspondence relating to this project can be sent to you. A modification request is not required to change your contact details.

4. Adverse Events and/or Complaints

Researchers should advise the Executive Officer of the Ethics Committee on 08 8201-3116 or human.researchethics@flinders.edu.au immediately if:

- any complaints regarding the research are received;
- a serious or unexpected adverse event occurs that effects participants;
- an unforeseen event occurs that may affect the ethical acceptability of the project.

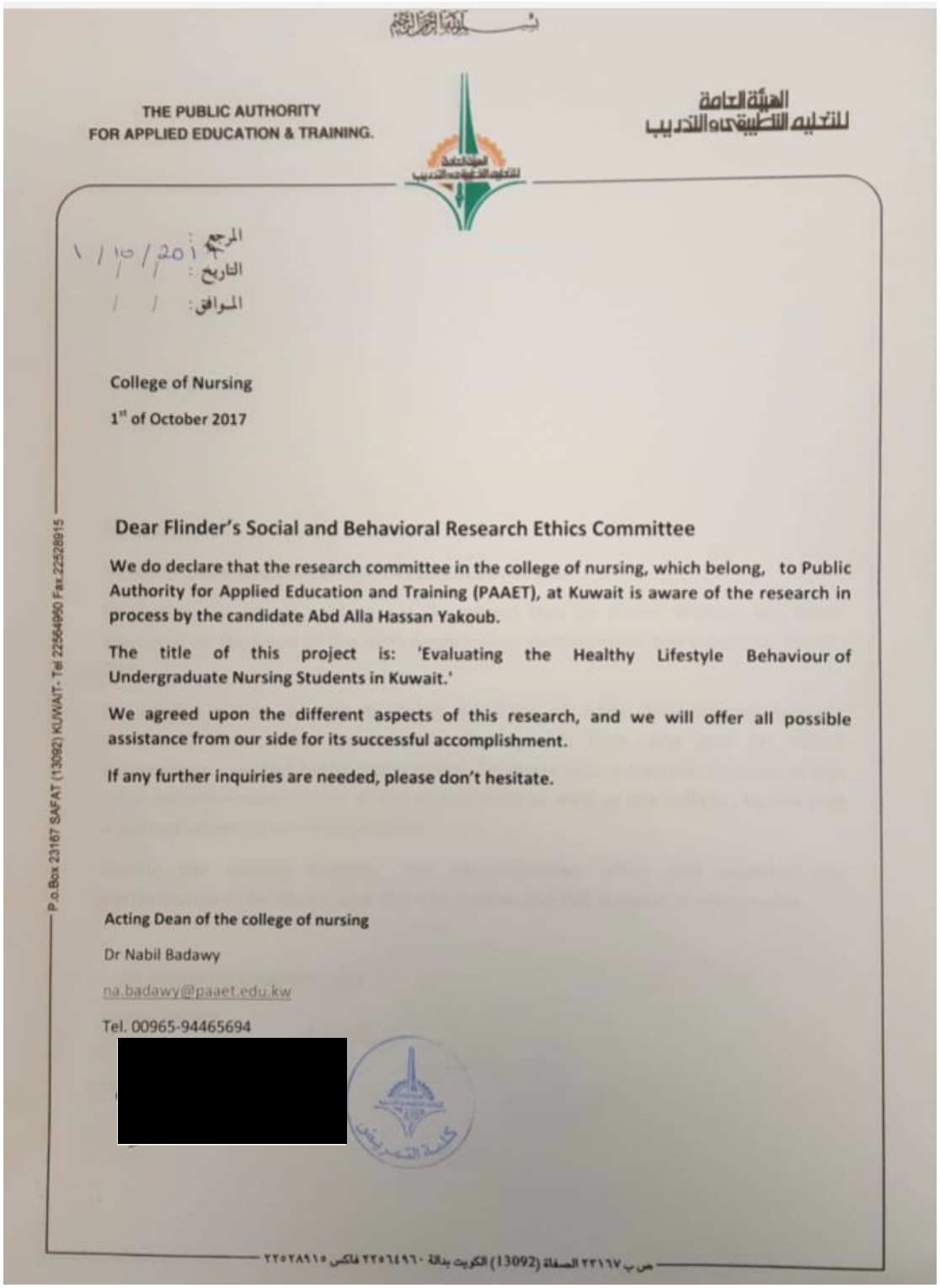
Kind regards
Rae

Ms Andrea Mather (formerly Piggott) and Ms Rae Tyler
Ethics Officers and Executive Officers, Social and Behavioural Research Ethics Committee

Ms Andrea Mather | Monday - Friday	T: +61 8201-3116 | E: human.researchethics@flinders.edu.au
Ms Rae Tyler | Monday, Wednesday and Friday mornings	T: +61 8201-7958 | E: human.researchethics@flinders.edu.au
A/Prof David Hunter | SBREC Chairperson	T: +61 7221-8477 | E: david.hunter@flinders.edu.au
Dr Deb Agnew | SBREC Deputy Chairperson	T: +61 8201-3466 E: deb.agnew@flinders.edu.au
SBREC Website	Social and Behavioural Research Ethics Committee (SBREC)

Research Development and Support |Union Building Basement
Flinders University
Sturt Road, Bedford Park | South Australia | 5042
GPO Box 2100 | Adelaide SA 5001

Appendix 5: CoN Approval



بسم الله الرحمن الرحيم

THE PUBLIC AUTHORITY
FOR APPLIED EDUCATION & TRAINING.

الهيئة العامة
للتعليم التطبيقي والتدريب

المرجع :
التاريخ : ١ / ١٠ / ٢٠١٧
الموافق : / /

College of Nursing

1st of October 2017

Dear Flinder's Social and Behavioral Research Ethics Committee

We do declare that the research committee in the college of nursing, which belong, to Public Authority for Applied Education and Training (PAAET), at Kuwait is aware of the research in process by the candidate Abd Alla Hassan Yakoub.

The title of this project is: 'Evaluating the Healthy Lifestyle Behaviour of Undergraduate Nursing Students in Kuwait.'

We agreed upon the different aspects of this research, and we will offer all possible assistance from our side for its successful accomplishment.

If any further inquiries are needed, please don't hesitate.

Acting Dean of the college of nursing

Dr Nabil Badawy

na.badawy@paaet.edu.kw

Tel. 00965-94465694

[redacted]

P.o.Box 23167 SAFAT (13092) KUWAIT. Tel 22564990 Fax 22528615

ص ب ٢٣١٦٧ الصفاة (13092) الكويت بدالة ٢٢٥٦٤٩٦٠ فاكس ٢٢٥٢٨٩١٥

Appendix 6: Letter of Introduction

Dr Dean Whitehead
College of Nursing and Health Sciences
Flinders Drive, Bedford Park SA 5042
GPO Box 2100
Adelaide SA 5001
Tel: +61 8 8201 3149
Email: dean.whitehead@flinders.edu.au

LETTER OF INTRODUCTION

(College of Nursing – PAAET - Kuwait)

Dear Students,

This letter is to introduce Abdullah Hasan who is a nursing research student at the College of Nursing and Health Sciences.

He is undertaking research leading to the production of a thesis or other publications on the subject of healthy lifestyle of undergraduate students at College of Nursing in Kuwait.

He would like to invite you to assist with this project by completing a questionnaire, which covers certain aspects of this topic. This process will take no more than 15 minutes. He intends to use an online questionnaire of the *Healthy Lifestyle Scale for University Students*.

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. You are, of course, entirely free to discontinue your participation at any time or to decline to answer particular questions.

Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on (+61 8 8201 3149) e-mail (dean.whitehead@flinders.edu.au).

Thank you for your attention and assistance.

Yours Sincerely,

[redacted]

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 7872). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

ديان وايت هيد :الدكتور
الصحية والعلوم التمريض كلية
بارك بيدفورد ،دريف فيليدرس
س ا 5042
2100 بوكس غبو
5001 ا س أديليد
هاتف: 82015433)08(61+
:الإلكتروني البريد
Dean.whitehead@flinders.edu.au
CRICOS Provider No. 00114A

تعريفية رسالة
(الكويت - التمريض لكلية – التطبيقي للتعليم العامة الهيئة)

الطلبة أعزائي

.الصحية والعلوم التمريض لكلية في أبحاث طالب وهو حسن عبدهلا السيد لكم اقدم

.الكويت في التمريض لكلية في الجامعية المرحلة لطالب صحي حياة أسلوب موضوع حول أخرى منشورات أو أطروحة إنتاج إلى تؤدي بأبحاث يقوم هو

15 من أكثر الاستغراق هذه تستغرق لن .الموضوع هذا من معينة جوانب يغطي استبيان استكمال خلال من المشروع هذا في المساعدة إلى يدعوكم أن ويود .الجامعات لطالب صحي حياة مقياس من الانترنت على استبيان استخدام يتطلب انه .دقيقة

أالطروحة في فردي بشكل عليها التعرف يمكن المشاركين من أي يكون ولن النتيجة من قدر بأقصى معها التعامل سيتم مقدمة معلومات أي أن من التأكد يجب .معينة أسئلة عن الإجابة رفض أو وقت أي في مشاركتك وقف في تماما حر أنت ،الحال وبطبيعة .أخرى منشورات أو تقرير ،النتائج

الإلكتروني البريد 3149(8201 8)+61 على الهاتف طريق عن أو أعلاه المذكور العنوان على لي المشروع هذا بشأن لديك استفسارات أي توجيه يجب .)dean.whitehead@flinders.edu.au(

.ومساعدتكم اهتمامكم شكرا

الاحترام فائق مني تفضلوا
ديان وايت هيد

من لحزيد 7872(. رقم مشروع) فليندرز جامعة والسلوكية الاجتماعية البحوث الأخلاق لجنة قبل من البحثي المشروع هذا على الموافقة تمت وقد 8201 على الفاكس طريق عن ،3116 8201 على الهاتف طريق عن للجنة التنفيذي بالموظف الاتصال يمكن للمشروع الأخلاقية الموافقة حول المعلومات الإلكتروني البريد طريق عن أو human.researchethics@flinders.edu.au2035

Appendix 7: Information Sheet

Mr Abdullah Hasan
College of Nursing and Health Sciences
Flinders Drive, Bedford Park SA 5042
GPO Box 2100
Adelaide SA 5001
Tel: +61 8 82013149
Email: hasa0049@flinders.edu.au

CRICOS Provider No. 00114A

Flinders UNIVERSITY
ADELAIDE • AUSTRALIA

INFORMATION SHEET
(for 'Participants')

Title: Evaluating the Healthy lifestyle Behaviours of Undergraduate Nursing Student's in Kuwait.

Researcher:
Mr Abdullah Hasan
College of Nursing and Health Sciences
Flinders University
Email: hasa0049@flinders.edu.au

Supervisor(s):
Dr Dean Whitehead
College of Nursing and Health Sciences
Flinders University
Email: dean.whitehead@flinders.edu.au

Dr Wendy Abigail
College of Nursing and Health Sciences
Flinders University
Email: wendy.abigail@flinders.edu.au

Description of the study:
This project is entitled '*Evaluating the Healthy lifestyle Behaviours of Undergraduate Nursing Student's in Kuwait.'* This project will investigate the healthy habits of undergraduate students at College of Nursing by using an online questionnaire of the Healthy lifestyle Scale for University Students. The Flinders University College of Nursing and Health Sciences support this project.

Purpose of the study:
This project aims to:

- To identify the healthy lifestyle behaviours of students at College of Nursing.
- To determine any significant differences between genders based on the findings of HLSUS.
- To explore the implications of the findings in promoting the general wellbeing of students and buildings, services and amenities at College of Nursing in Kuwait.

What will I be asked to do?
You are invited to participate and complete an online questionnaire, which will take you about 15 minutes to answer.

What benefit will I gain from being involved in this study?
You will be familiar with some habits that may affect your general health, wellbeing and academic life. The results might lead to possible improvements of college's buildings, services and amenities.

Will I be identifiable by being involved in this study?
You will not be identifiable by the researcher or any member of research team. No name or student number will be needed to complete the questionnaire.

Are there any risks or discomforts if I am involved?
There are no risks or discomforts to all students, even those who decided not to participate. However, if you have any concerns regarding anticipated or actual risks or discomforts, please see the colleges' counselling services on the ground floor at the College of Nursing (ext. 2008) for any emotional discomfort or distress.

How do I agree to participate?
To participate, you will need to be over 18 years old and an undergraduate student at the College of Nursing in Kuwait. Participation is voluntary. If you agree to participate, your consent is implied on completion of the questionnaire.

How will I receive feedback?
Feedback of this study will be posted on the college of nursing website.

Thank you for taking the time to read this information sheet and we hope that you will accept our invitation to be involved.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 7872). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

inspiring achievement

حسن عبدهللا لسيد
الصحية والعلوم التمريض كلية
بارك بيدفورد ،دريف فليندرس
ا س 5042
2100 بوكس غبو
5001 أديليد س ا
هاتف: 82015433)08(61+
:اإللكتروني البريد
hasa0049@flinders.edu.au
CRICOS Provider No. 00114A

Flinders
UNIVERSITY
ADELAIDE • AUSTRALIA

المعلومات ورقة
"(المشاركون" ل)

العنوان: تقييم نمط الحياة الصحية سلوكيات طالب المرحلة الجامعية التمريض في الكويت.

:الباحث
حسن عبدهللا السيد
الصحية والعلوم التمريض كلية
جامعة فلندرس
:البريد اإللكتروني
Hasa0049@flinders.edu.au

:المشرفين
هيد وايت دين الدكتور
الصحية والعلوم التمريض كلية
جامعة فلندرس
:البريد اإللكتروني
Dean.whitehead@flinders.edu.au

أبيغيل ويندي الدكتورة
الصحية والعلوم التمريض كلية
جامعة فلندرس
:البريد اإللكتروني
Wendy.abigail@flinders.edu.au

:الدراسة وصف

يحقق سوف المشروع هذا "بعنوان المشروع هذا تقييم سلوكيات نمط حياة صحي لطالب التمريض في المرحلة الجامعية في الكويت." هذا المشروع الصحية والعلوم للتمريض الجامعية فلندرس كلية وتدعم الجامعات لطالب. مؤشر الصحية الحياة نمط من االنترنت على استبيان باستخدام التمريض كلية في الجامعيين للطالب الصحية العادات في

:الغرض من الدراسة

إلى المشروع هذا يهدف
- التعرف على سلوكيات أسلوب حياة صحي للطالب في كلية التمريض.
- تحديد أي فروق ذات داللة إحصائية بين الجنسين استنادا إلى نتائج البحث.
- استكشاف اآلثار المترتبة على النتائج في تعزيز الرفاهية العامة للطالب والمباني والخدمات والمرافق في كلية التمريض في الكويت.

أفعل؟ أن مني سيطلب ماذا
.للرد دقيقة 15 حوالي يأخذك سوف والذي ،االنترنت على االستبيان واستكمال للمشاركة مدعوون انتم

الدراسة؟ هذه في المشاركة من سأكتسبها التي الفائدة ما
إلى النتائج تؤدي وقد .االكلينيكية والحياة والرفاهية العامة الصحة على تؤثر قد التي العادات ببعض دراية على تكون سوف .ومرافقها وخدماتها الكلية حياتي في ممكنة تحسينات

لن الدراسة؟ هذه في المشاركة خالل من علي التعرف الممكن من سيكون هل
الطالب رقم أو اسم إلى حاجة هناك تكون لن .البحث فريق أعضاء من عضو أي أو الباحث قبل من عليك التعرف يتم .االستبيان الستكمال

مشاركا؟ كنت إذا مضاعفات أو مخاطر أي هناك هل
المخاطر بشأن مخاوف أي لديك كان إذا ،ذلك ومع .المشاركة عدم قرروا الذين أولئك حتى ،الطالب لجميع مضاعفات أو مخاطر توجد ال المستطيل كلية في االرضي الطابق في الكلية الرشاد خدمات على االطالع يرجى ،الراحة عدم أو الفعلية أو المتوقعة .ضيق أو العاطفي االنزعاج أي 2008(عام)

المشاركة؟ على أوافق كيف
إذا .طوعية والمشاركة .الكويت في المستطيل كلية في مقيد وطالب سنة 18 من أكثر تكون أن إلى تحتاج سوف ،للمشاركة .االستبيان من االنتهاء عند ضمنا تعني موافقتك فإن ،المشاركة على وافقت

تعليقات؟ أتلقى كيف
.اإلنترنت شبكة على موقع المستطيل موقع على الدراسة هذه من الفعل ردود نشر سيتم

.للمشاركة دعوتنا تقبل أن ونأمل هذه المعلومات ورقة لقراءة الوقت تخصيص على نشكرك

من لمزيد 7872(. رقم مشروع) فليندرز جامعة والسلوكية االجتماعية البحوث االخالق لجنة قبل من البحثي المشروع هذا على الموافقة تمت وقد الهاتف طريق عن ،61882013116+ على االتصال يمكن للمشروع االخالقية الموافقة حول المعلومات االلكتروني البريد طريق عن أو 61882012035+ على human.researchethics@flinders.edu.au

Appendix 8: Translation Accuracy Form

Flinders University and
SOCIAL AND BEHAVIOURAL RESEARCH ETHICS COMMITTEE

IMPORTANT – this form should only be completed for translations submitted after an ethics application has been submitted and reviewed by the committee; as the committee may request changes to the information and documents to be provided to prospective participants requiring translation.

TRANSLATION ACCURACY CERTIFICATION
Participant Documentation

PROJECT NO.	**7872**
Principal Researcher	ABDULLAH HASAN
Supervisor Name (student projects only)	Dr Dean Whitehead Dr Wendy Abigail
Project Title	Evaluating the Healthy Lifestyle Behaviours of Undergraduate Nursing Student's in Kuwait.

Does your proposed research require documentation to be translated into another language?	X Yes No	*Place the letter 'X' in the relevant box*

If NO, please note that this form does not need to be completed.

If YES, please complete the sections below.

		YES	Individuals Name or Company Name
HOW will information and documentation to be distributed to prospective participants be translated?	By the student researcher?	X	ABDULLAH HASAN
	By the students supervisor?		
	By one of the staff researchers?		
	By an employed research assistant?		
	By a professional translation company?		

Translations undertaken by Researcher	Signature
If information and/or documentation to be provided to prospective participants will be translated by one of the student or staff / supervisor researchers, please sign to the right to certify that the translations represent an accurate translation of the English versions provided to the committee.	[redacted] Date: 01/03/2018

Appendix 9: Translator Confidentiality Agreement

Flinders UNIVERSITY
ADELAIDE • AUSTRALIA

CONFIDENTIALITY AGREEMENT

Translation Services

Evaluating Healthy lifestyle Behaviours of Undergraduate Students at the College of Nursing in Kuwait.

I, Abdullah Alhalaf, translator, agree to maintain full confidentiality in regards to any and all documentation received from Abdullah Hasan related to his research on 'Evaluating Healthy lifestyle Behaviours of Undergraduate Students at the College of Nursing in Kuwait.'
. Furthermore, I agree:

1. To hold in strictest confidence the identification of any individual that may be inadvertently revealed during the translation of email interviews, or in any associated documents;
2. To not make copies of any research materials or questionnaire, unless specifically requested to do so by Abdullah Hasan.
3. To store all study-related materials in a safe, secure location as long as they are in my possession;
4. To return all study-related documents to Abdullah Hasan in a complete and timely manner.
5. To delete all electronic files containing study-related documents from my computer hard drive and any backup devices.

I am aware that I can be held legally liable for any breach of this confidentiality agreement, and for any harm incurred by individuals if I disclose identifiable information contained in the documents to which I will have access.

Translator's name (printed) Abdullah Alhalaf

Translator's signature [redacted]

Date 24-09-2017

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 7730). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

THE PUBLIC AUTHORITY
FOR APPLIED EDUCATION & TRAINING.

الهيئة العامة
للتعليم التطبيقي والتدريب

المرجع :
التاريخ : 2017/09/24
الموافق : / /

To whom it may concern

My name is Abdullah Khalaf and I am currently working as an assistant professor at the College of Basic Education at the Public Authority for Applied Education and Training in Kuwait. I have been working in this institution since 2014.

I completed my Master Degree at Kingston University in 2008. And PhD at the University of Southampton in the United Kingdom in 2014. I am a native Arabic speaker who is fluent in English. Which enables me to translate the required material that Mr. Abdullah Hasan is interested in translating for the purpose of completing his research thesis.

Sincerely,
Dr. Abdullah Khalaf