‘What’s Going on in My Cyber World?’

A Mixed Methods Study of Chinese University Students’ Involvement in Cyber Aggression

by

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Abstract

The existing literature on cyber aggression indicates that aggressive cyber behaviours are pervasive among adolescents. However, Akbulut and Eristi (2011) maintained that online aggressive behaviour could be prevalent in all age groups. Further, Beran, Rinaldi, Bickham and Rich (2012) indicated that there is continuity in young people's behaviours from secondary school through to university. No studies on cyber aggression among university students in a Chinese cultural context have been found. This research used a mixed methods approach to assess the problem of cyber aggression among Chinese university students. A structured inquiry was first used to collect quantitative data to discover the prevalence, types and digital environments of university students' involvement in cyber aggression. A qualitative approach involving semi-structured interviews enabled this study to go beyond the quantitative study outcomes to provide an in-depth description and explanation of cyber aggression among Chinese university students. Different perspectives of the problem were examined and explored using a combination of these two types of data. The quantitative data were collected from a cyber aggression survey of 1191 Chinese university students attending a municipal university in Beijing, China, aged between 18 and 23. The results revealed that many students were involved in cyber aggression. Male students were more likely to be victimised by, and perpetrate, cyber aggression. Compared to other year level students, students in the final year of their undergraduate degree were more likely to target others and experience cyber aggression. Making mean or hurtful comments and spreading rumours were the most common types of victimisation and perpetration. WeChat and massive multiplayer online games

were the most common environments of victimisation and perpetration. The qualitative data were collected from semi-structured individual interviews with 27 Chinese university students who participated in the previous survey. The findings suggested various explanations for cyber aggressive behaviour, including internal factors, relationship problems and the online anonymity and disinhibition effect. Cyber aggression experiences were reported to have negative and long-lasting effects on Chinese university students. The participants indicated that they did not have adequate strategies for responding to cyber aggression and parents did not contribute to students’ responses. Traditional Chinese cultural values played a role in parents’ teaching and students’ reactions to cyber aggression. The findings suggest that cyber aggression is a problem extending to emerging adults in China. More research is required to develop theoretical frameworks to help explain emerging adults’ online behaviour in a technological context and to inform prospective educational programs to help them to regulate their behaviour in cyberspace. Specific regulations should be legislated to supervise and constrain the online behaviours of young adults.

Declaration

I certify that this thesis does not incorporate without acknowledgement 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.

Xiaozhu Pan

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Chapter 1: Introduction

1.1 Research Problem

This study sought to investigate the issue of cyber aggression among Chinese university students. In this digital age, young people are accustomed to retrieving educational materials and communicating with others using information technology (Sticca & Perren, 2013; Völlink, Bolman, Dehue & Jacobs, 2013). Most studies examining online aggressive behaviour focuses on primary and secondary school students (e.g., Ang & Goh, 2010; Antoniadou, Kokkinos & Markos, 2016; Festl, Scharkow & Quandt, 2013; Pereira, Spitzberg & Matos, 2016). By contrast, research into cyber aggression among university students is limited. According to Arnett (2000), emerging adulthood is a developmental stage between adolescence and full adulthood, which is between the ages of 18 and 25. In this period, young people tend to be ambiguous in their identities—neither adolescents, nor adults—and are exploring life possibilities in areas of romantic relationships, jobs and worldviews. As emerging adults, university students are transitioning from their late teens to their early 20s. In such a developmental stage, some traits and behaviours that appeared in adolescence may continue into emerging adulthood (Arnett, 2000; 2007; Beran et al., 2012). Beran et al. (2012) discovered that there was continuity in harassment among young people from the United States (US) and Canada from high school to university; that is, students who reported cyber harassment in university were more likely to have experienced harassment in high school as well. Longitudinal studies by Beran (2008) and Sourander, Helstela, Helenius and Piha (2000) indicated continuity of victimisation of online aggression from one educational level to the next. Therefore, to understand university students' involvement in cyber aggression, empirical attention is required.

In the online environment, some emerging adults have been found to act aggressively in their early adulthood. For example, researchers from Turkey (Akbulut & Eristi, 2011; Arıcak, 2009; Gokler, 2013), Malaysia (Balakrishnan, 2015), the US (Bauman & Baldasare, 2015; MacDonald & Roberts-Pittman, 2010; Zalaquett & Chatters, 2014), Canada (Faucher, Jackson & Cassidy, 2014) and Portugal (Francisco, Simão, Ferreira & Martins, 2015) have discovered cyberbullying and cyber aggression among university students. However, cyber aggression research among Chinese university students is limited. This research seeks to address this gap in the literature by investigating Chinese university students’ involvement in, and experiences of, cyber aggression.

This chapter covers three areas. First, the decision to use the term cyber aggression, rather than cyberbullying, is explained. Second, the significance of this study is justified from three perspectives: the contribution to literature on cyber aggression, a view of cyber aggression from university students’ perspectives and the contribution to understanding cyber aggression in a Chinese cultural context. Finally, the quantitative and qualitative research questions are specified.

1.2 Defining Cyber Aggression

In studies undertaken outside the United Kingdom (UK) and Europe, subsets of aggression using information and communication technology (ICT) have been explored, including cyber harassment, cyberstalking, cyberbullying and cyber abuse (Mishna, Mcluckie & Saini, 2009). The more frequently used term in studies in the UK and Australia is ‘cyberbullying’ (Grigg, 2010). However, there is a lack of consensus on the definition of cyberbullying (Kowalski, Limber & Agatston, 2008). A commonly used definition of cyberbullying is as ‘an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself’ (Smith et al., 2008, p. 376). In this definition,

the concepts of 'repetition of the aggressive behaviours' and 'imbalance of power between the victim and the aggressor', which are key elements in traditional face-to-face bullying, are applied to cyberbullying (Dooley, Pyżalski & Cross, 2009; Vandebosch & Van, 2008).

However, online aggressive ICT behaviours are covert (Notar, Padgett & Roden, 2013) and cyberbullying is qualitatively different from traditional bullying in some critical ways. For example, cyberbullies take advantage of the nature of anonymity in online communication (Akbulut & Eristi, 2011; Srivastava, Gamble & Boey, 2013) They consider that their real identities will not be disclosed and say and do things that they would not say or do in person (Dehue, Bolman & Völlink, 2008; Postmes & Spears, 1998; Slonje & Smith, 2008). In these cases, it is difficult to know whether the perpetrator is more powerful than their victim. Further, Slonje, Smith and Frisén (2013) argued that anonymity could even be considered a type of power imbalance. In addition, a victim with weaker physical or psychological power in traditional bullying may target others in revenge in an online environment (Smith, 2012). Vandebosch and Van (2008) indicated that the fact that using the internet and ICTs as means of harming someone could be another possible power imbalance in the online environment. According to Ybarra and Mitchell (2004a), cyberbullies tend to believe they are more powerful than non-cyberbullies with regard to internet usage. Dooley et al. (2009) suggested that once information is posted online, it is difficult to remove or avoid. Therefore, this feature may reduce the cyber victim to a powerless position. The above situations make it more difficult to assess power imbalance (Dooley et al., 2009).

In addition to difficulties determining power imbalance, Smith (2012) argued that the concept of repetition is also difficult to assess in cyberspace aggression. Within the confines of anonymity, it is difficult to know whether the perpetrator repeats their aggressive behaviours online (Finkelhor, Turner & Hamby, 2012). For example, the

aggressor may post only one offensive comment online without repeating it. However, it can be seen and forwarded to many people, many times (Dooley et al., 2009). This constitutes an actual repetition. Further, not all repetition is with the intention to harm. Slonje, Smith and Frisén (2012) discovered that when dealing with information intended to cyberbully others, 72% of bystanders did nothing to forward it, 9% distributed it further, 6% showed or forwarded it to the victim with intention to harm and 13% showed or forwarded it to the victim to help them. Therefore, the concept of repetition is difficult to assess in an online environment.

In light of these difficulties of determining power imbalance and repetition of behaviours, this study utilises the term cyber aggression rather than cyberbullying. Cyber aggression involves repeated and un-repeated aggressive behaviours intended to hurt others in digital environments. For example, making mean or hurtful comments to upset others, spreading rumours via chat programs and hacking someone's QQ (a popular social networking app in China) account. As a broader construct, cyber aggression includes cyberbullying and other intentionally hurtful actions and is a more appropriate description of this phenomenon.

For the purposes of this study, the definition of cyber aggression by Schoffstall and Cohen (2011) was adopted; 'intentional behaviour aimed at harming another person or persons through computers, cell phones, and other electronic devices, and perceived as aversive by the victim' (p. 588). This broader definition makes it possible to compare the findings of this study with other studies of cyber aggression around the world, in America (France, Danesh & Jirard, 2013), India (Wright, Kamble & Soudi, 2015) and the UK (Pornari & Wood, 2010).

1.3 Justification for the Current Study

The significance of this study is threefold. First, this study contributes to the field of research on cyber aggression. With the popularisation of the internet, cyber

aggression has appeared as a new form of aggression in social interaction in cyberspace. Similar to traditional aggression, cyber aggression causes upsetting and psychologically painful experiences to victims and perpetrators (Grigg, 2010). It has aroused increasing attention among researchers and educators. This is a new and worthwhile research area. Second, this research provides a perspective of cyber aggression from the perspective of university students. Previously, research about aggression and cyber aggression mainly focused on primary and secondary school children. The study of aggression among university students is limited and there is even less about cyber aggression among Chinese university students. Finally, this research contributes to understandings of cyber aggression in the Confucian context. In China, Confucianism provides an important system of social and cultural philosophy. It emphasises the importance of family and social harmony. Including cultural diversity in the research on cyber aggression may assist Eastern and Western researchers to learn more from each other (Ji, Zhang & Jones, 2016; Smith, 2016).

1.3.1 Contribution to the field of cyber aggression

Although limited, some researchers have reported the prevalence of cyberbullying among tertiary students. The study by MacDonald and Roberts-Pittman (2010) in the US discovered that more than one-fifth of university students were cyberbullied and less than 10% engaged in cyberbullying. Aricak (2009) conducted a study in a Turkish university and discovered that more than half of the participants had been victimised, while nearly one-fifth had cyberbullied others. Faucher et al. (2014) conducted their study in four Canadian universities and reported that, over the previous 12 months, nearly one-quarter of student respondents had been cyberbullied and more male (5%) than female (3%) participants had perpetrated cyberbullying. However, neither comparison nor generalisations from these studies is possible, as measures, definitions and study methods used by the researchers were different in each study.

Considering the lack of consensus about the definition of cyberbullying, the term cyber aggression as a broader construct is used in the current study, as cyber aggression is a more general term referring to repeated and unrepeated actions, with intention to harm others using information technology (Grigg, 2010). Using a general term makes it possible for this study to be compared with other studies (Simmons, Bauman & Ives, 2015; Wright, Aoyama et al., 2015; Wright & Li, 2013) who use the same definition.

Further, unlike most previous cyber aggression studies, this study uses a mixed methods design to provide a better understanding of the research problem with quantitative and qualitative data (Creswell, 2012). The quantitative data from the first part of this study were statistically analysed and produced results about rates and trends of the study issue. More detailed and in-depth qualitative data were obtained in the second phase of this study. The combination of the two types of data helped develop a more comprehensive picture of the issue of cyber aggression among Chinese university students.

1.3.2 A view of cyber aggression from the perspective of university students

Attending university is a critical transition from high school, as young people are undergoing an adjustment from adolescence to adulthood. University can be a stressful periods in a student’s life (Hales, 2016; Lau, Hui, Lam, Lau & Cheung, 2015). During these years, students face cognitive, psychological, social and spiritual changes and challenges (Newman & Newman, 2014; Schulenberg, Bryant & O’Malley, 2004). Given the uniqueness of this period, university students’ subjective well-being has aroused the attention of educators and researchers. Peer relationships and social networks are important influencing factors for university students’ welfare (Manago, Taylor & Greenfield, 2012). As an individual grows from adolescence to adulthood,

they develop friendships to complement the support they may receive from their family (Collins & Laursen, 2004). Galambos, Barker and Krahn (2006) argued that increases in social support for young adults contributes to their psychological well-being. Jackson, Soderlind and Weiss (2000) discovered that low social support may cause depression among tertiary students.

In this digital age, young people regard the internet and smartphones as essential tools for education and social interaction (Sticca & Perren, 2013; Völlink et al., 2013). As digital natives, young people are afforded the ability to exchange information more efficiently. However, it also provides them with a host of avenues to become involved in cyber aggression. For example, Pereira et al. (2016) conducted an online survey among more than 600 school students aged between 12 and 16 from northern Portugal and Azores. In this survey, more than three-fifths of the participants reported being both victims and perpetrators of cyber aggression.

It is generally agreed that cyberbullying and cyber aggression can be discovered in different age groups (Robson & Witenberg, 2013; Ševčíková & Šmahel, 2009; Slonje & Smith, 2008). ‘Given that cyber-bullying increases in frequency from middle school to high school, there is reason to believe this trend would continue as individuals move from high school to college’ (Schenk, Fremouw & Keelan, 2013, p. 2320). For example, Finn (2004) conducted an exploratory study among more than 300 university students. They reported that more than 10% of the participants had experienced online harassment. A study conducted in the US reported that 21.9% of university students had been cyberbullied and 8.6% had engaged in cyberbullying (MacDonald & Roberts-Pittman, 2010). Another study conducted in a Turkish university discovered that 54.4% of participants had been victimised and 19.7% had bullied others (Aricak, 2009). A study among four Canadian universities reported that, over the previous 12 months, 24.1%

of student respondents had been cyberbullied and 5% of male and 3% of female participants had perpetrated cyberbullying (Faucher et al., 2014).

Previous research findings suggest that online aggressive behaviours are detrimental to individuals and the social climate of the school. These behaviours make both the school and home settings unsafe. Cyberbullying may have negative effects on social bonds in schools and cause unhealthy functioning (Kiriakidis & Kavoura, 2010). Compared to traditional bullying, which mainly occurs in school, cyberbullying can also occur at home. This means that cyber victims may be hurt in their homes (Raskauskas & Stoltz, 2007).

Not only victims, but also perpetrators, may be hurt by cyber aggression (Kowalski & Limber, 2013). Campbell, Spears, Slee, Butler and Kift (2012) discovered that cyber victims reported feelings that ranged from anger, to feeling nothing, to sadness (Campbell et al., 2012). Cyber victims may also feel embarrassed and scared (Mishna, Cook, Gadalla, Daciuk & Solomon, 2010). Online aggressive behaviours may even cause psychological trauma (Gillespie, 2006) and suicidal thoughts (Hinduja & Patchin, 2010). Cyber aggression may have a negative effect on perpetrators as well. Perpetrators may experience depression, anxiety (Kowalski & Limber, 2013) and feelings of guilt (Mishna et al., 2010).

For university students, online aggressive behaviours also have negative effects. For example, cyberbullying may make the victims feel angry or hurt and result in thoughts of dropping out of university, preventing students from focusing on their studies (Washington, 2015). Schenk et al. (2013) reported that cyberbullies and victims scored higher in factors of distress, interpersonal sensitivity, depression, hostility, phobic anxiety, paranoia and psychotic symptoms. According to university students' perceptions, cyberbullying is far more devastating and harmful than traditional bullying (Campbell et al., 2012; Gilroy, 2013).

The issue of cyber aggression among university students deserves more attention from researchers and society. So far, most studies of this behaviour focus on primary and secondary school students. In contrast, the research about cyber aggression among tertiary students (i.e., the emerging adult population in universities) is limited. There is even less research about cyber aggression among Chinese university students. The purpose of this study is to contribute to the existing knowledge of cyber aggression by empirically investigating the involvement of Chinese university students.

1.3.3 Contribution to understanding cyber aggression in the Confucian context

Previous research suggests that cyber aggression is not a phenomenon that exists in only one country or one culture; it is a global problem (Menesini et al., 2012; Wright, Aoyama et al., 2015; Wright et al., 2016). For example, studies of cyber aggression and cyberbullying have been conducted in Australia (Campbell et al., 2012), Germany (Festl, Scharkow & Quandt, 2013), Italy (Brighi, Guarini, Melotti, Galli & Genta, 2012) and Sweden (Låftman, Modin & Östberg, 2013). However, the development of research on cyber aggression in China is limited (Zhou et al., 2013).

Although research has been primarily conducted in Western countries, there have been some recent studies about cyber aggressive behaviours among Chinese young people. These studies reveal that the overall prevalence of cyberbullying among adolescents has been high in China. A study by Huang and Chou (2010) of more than 500 junior high school students discovered that over one-third of participants were victimised by cyberbullying and more than one-fifth targeted others in the cyber environment. In a study by Li (2008), data collected from more than 200 Chinese secondary school students aged between 11 and 14 demonstrated that over three-fifths of participants had been cyber victimised and slightly fewer had perpetrated cyberbullying. Zhou et al. (2013) conducted a study with a sample of more than 1400

high school students. More than half of the participants reported being victims of cyberbullying and over one-third reported being cyberbullies.

The above findings indicate that cyber aggression is not an issue that is only pervasive among young people from individualist Western cultural backgrounds, but also in the Chinese cultural context. Today, most Chinese university students are equipped with smartphones and go online every day to connect with others. The internet and some popular instant messenger tools and Chinese social networking apps, such as QQ, WeChat and Weibo, do not only serve as tools for daily communication and study but also as mediums for aggressive behaviours. This research uses a sample of Chinese university students to investigate these aggressive behaviours in an online environment.

Cultural values, such as collectivism and individualism, affect the behaviour of humans (Huang, Hong & Espelage, 2013; Menzer & Torney-Purta, 2012). Research on aggression suggests that cyber aggression is pervasive among adolescents and that people in individualistic cultures are more aggressive than those in collectivist cultures (Bauman, 2013; Huang et al., 2013; Wright, Aoyama et al., 2015; Wright et al., 2016). However, cyberspace is different. Of all internet users in the world, China is the country with the highest internet usage and the most users (642 million in 2014) (Internet Live Stats, 2016). The next three countries are the US, India and Japan. China’s percentage of internet users (approximately 22%) is more than the other three countries combined. Access to the internet and more time spent online increases a person’s risk of becoming involved in cyber aggression (Park, Na & Kim, 2014).

Previous research has revealed that the endorsement of collectivism decreases the risks of becoming involved in aggressive behaviours (Forbes, Zhang, Doroszewicz & Haas, 2009; Strohmeier, Yanagida & Toda, 2016). It is plausible that within a collectivist or Confucianist context, to maintain social harmony and positive interpersonal relationships, people learn to control their frustration, anger and impulsive

behaviours (Ji et al., 2016). However, in cyberspace, people can remain anonymous and can decide on the identity they wish to present. This offers individuals opportunities to perpetrate cyber aggression.

1.4 Research Questions

In traditional aggression and bullying, it was discovered that, compared to females, males are more likely to use physical means to harm others (Archer, 2004; Gentile & Bushman, 2012) and are more likely to bully their peers (Smith, Cowie, Olafsson & Liefooghe, 2002). In contrast, indirect aggression is more typical of females than males (Björkqvist, Österman & Kaukiainen, 1992; Crick, 1997; Owens, Shute & Slee, 2000; Owens, Skrzypiec & Wadham, 2014). In cyber aggression, Kowalski and Limber (2007) discovered that girls have greater involvement in cyber aggression. This is consistent with the findings of Smith et al. (2008). In contrast, Erdur-Baker (2010) and Li (2006) maintained that males are more likely to act aggressively in digital environments. Conversely, Patchin and Hinduja (2009) and Williams and Guerra (2007) reported no gender differences. In consideration of the mixed findings on gender traits in cyber aggression, gender differences are included in this research to better understand cyber aggression among Chinese university students.

According to Björkqvist, Lagerspetz and Kaukiainen (1992), there are significant age differences in types of traditional aggression among boys and girls. In their study in Britain, Rivers and Smith (1994) reported similar age and gender differences in types of traditional bullying. However, there is no report about age differences in cyber aggression among Chinese university students. In addition, first and second year university students face various stresses, including making new relationships and establishing and maintaining their status in the new environment (Buchanan, Ljungdahl & Maher, 2015; Chow & Healey, 2008). In contrast, in their final two years of university, students have secured their status and are adapted to the

environment. It is predicted that first and second year students may have different experiences in, and responses to, cyber aggression than third and fourth year students. Therefore, this study investigates the differences in students’ experiences of cyber aggression between year levels.

Different types of cyberbullying have been identified (Fernandes, Sanyal & Chadha, 2015; Li, 2008). According to Willard (2006), there are seven categories: flaming, online harassment, cyberstalking, denigration, masquerading, outing and exclusion. Singh and Sonkar (2013) discovered that the most prevalent types of cyberbullying were name-calling, abusive comments and sending upsetting images. In addition, Willard (2006) acknowledged several environments in which cyberbullying usually occurs, including various forms of web publishing, websites to post materials, blogs, email, discussion groups, chatrooms, instant messaging and text or digital image messaging. According to Singh and Sonkar (2013), email, social networking sites, online chatrooms and mobile phones are the most common environments in which cyberbullying occurs. However, there is no report about different types and environments of cyber aggression among Chinese university students. Therefore, the questions about types and digital environments of cyber aggression among Chinese university students were included in the current study.

Previous research has discovered that aggression has found its way into university life. The prevalence of cyberbullying among college-age students has been examined by Akbulut and Eristi (2011), Faucher et al. (2014) and Zalaquett and Chatters (2014). However, students’ real life stories of cyber aggression were not adequately obtained to explore the nature of the online behaviour. In the second phase of this study, university students’ experiences of cyber aggression were elicited.

Considering the vast array of explanations for this behaviour, this study attempted to add to understandings of why emerging adults target others in cyberspace,

by including the students’ perspective. Current explanations of cyber aggression have been explored (mainly among adolescents) by quantitative studies in other countries (e.g., Antoniadou & Kokkinos, 2015; Aricak, 2009; Mishna et al., 2010). The literature lacks explanations from Chinese university students. As such, this study sought to explore the motives and causes offered by the students.

Cyber aggression affects various aspects of young people’s lives. It can cause emotional trouble (Hoff & Mitchell, 2009), psychological harm (Gillespie, 2006) and affect academic performance (Kowalski & Limber, 2013). However, the previous findings were from cultural contexts outside China. It was expected that this study would add knowledge to what is already known about the effects of cyber aggression on young people.

Two further aspects that were included in the current study were Chinese university students’ responses to cyber aggression and parents’ influence on their responding strategies. These two areas were not explored in previous studies and it was anticipated that the findings in the Chinese cultural context would contribute to the current literature on cyber aggression.

1.4.1 Research questions

Using quantitative and qualitative data, this study aims to raise awareness of cyber aggression among Chinese university students by investigating the rates, different types and digital environments of cyber aggression using the broader notion of cyber aggression and by investigating Chinese university students’ experiences of cyber aggression. This study sets out to address the following quantitative and qualitative research questions.

1.4.1.1 *Quantitative research questions*

The quantitative research questions that this research addresses are:

1. What is the prevalence of cyber aggression victimisation and perpetration among Chinese university students and how do they differ in terms of gender and year level?
2. What are the types of cyber aggression among Chinese university students and how do they differ in terms of gender and year level?
3. What are the digital environments in which cyber aggression among Chinese university students occurs and how do they differ in terms of gender and year level?

1.4.1.2 *Qualitative research questions*

The qualitative outcomes describe the overall picture of cyber aggression among Chinese university students. The following questions allow for an in-depth investigation of the nature of the aggression. The qualitative research questions are:

1. What are the specific behaviours that Chinese university students experience in victimisation and perpetration?
2. What are Chinese university students’ explanations for perpetration?
3. What are the effects of cyber aggression on Chinese university students?
4. How do Chinese university students respond to cyber aggression?
5. How are Chinese university students influenced by their parents in their responses to cyber aggression?

In the second phase, a holistic and complex account of the research problem was developed (Creswell, 2013). The answers to these questions were elicited from participants so that multiple perspectives could be reported and various factors involved in Chinese university students’ experiences could be identified. This study investigates cyber aggression among Chinese university students with an explanatory mixed methods sequential design (see Chapter 3). Chapter 2 provides an extensive review of the literature on cyberbullying and cyber aggression among young people.

Chapter 2: Study Background

With the increasing use of ICT, young people use the internet and smartphones for educational and social purposes (Sticca & Perren, 2013; Völlink et al., 2013). Prenksy (2001) defines digital natives as young people who were born after the widespread adoption of digital technology. They have grown up using digital technology and devices and are proficient with ICT. As digital natives, young people have the ability to communicate more efficiently. Conversely, the advancement of ICT and digital devices have also caused significant pain for some young people. Davidferdon and Hertz (2007) argued that use of ICT increases the risk for young people to be victimised by aggressive acts in cyberspace. This chapter provides an extensive review of the literature on cyberbullying and cyber aggression among young people. It discusses prevalence, types, behaviours, digital environments, explanations, effects, responses and the influence of parents on the responding strategies of their children.

2.1 Prevalence of Cyber Aggression among University Students

Previous research indicates that most studies on cyberbullying and cyber aggression have involved adolescents. However, Akbulut and Eristi (2011) argued that online aggressive behaviour could be prevalent in all age groups; any individual who is computer and internet-literate could be a cyberbully without the limitation of age or education. Lee (2017) maintained that students in higher education frequently use communication technology and digital devices, creating opportunities for cyberbullying. Now, more researchers have turned their attention to cyber aggression studies at a university level. For example, Bauman and Baldasare (2015) investigated the prevalence, and young people's perceptions, of cyberbullying using a sample of American university students. The study by Kowalski, Giumetti, Schroeder and

Lattanner (2014) focused on the psychological profile of cyber victims and bullies among Greek university students. In Malaysia, Balakrishnan (2015) examined the prevalence of cyberbullying among young adults aged between 17 and 30 years old.

Findings by Aricak (2009) suggested that cyber aggression and cyber victimisation were pervasive among Turkish university students. Hoff and Mitchell (2009) conducted mixed methods research with over 300 American undergraduate students and discovered that over one-half of their sample reported being affected by cyberbullying. Comparing their findings with other study results, Hoff and Mitchell (2009) argued that cyberbullying among young people might be increasing. Kokkinos, Antoniadou and Markos (2014) investigated cyberbullying among more than 400 Greek university students. In their study, more than 10% of participants were identified as pure cyber victims, nearly 15% as pure perpetrators and approximately one-third as both a bully and a victim. Kokkinos et al. (2014) argued that more participants took on the mixed role of cyberbully and victim due to the disinhibition of online communication. The victims could be aggressive in the online environment in retaliation. In Portugal, Francisco et al. (2015) discovered that nearly one-third of participants in a sample of more than 500 undergraduate students had been cyberbullied and approximately one in 10 had targeted others. Meanwhile, Dredge, Gleeson and Garcia (2014) reported that, in a sample of approximately 150 Australian undergraduate students, over one-half of participants had experienced cyber victimisation. Similarly, Balakrishnan (2015) discovered that cyber victimisation was common for majority of university students in a sample of approximately 400 Malaysian emerging adults aged up to 30 years old. In that study, nearly 40% of participants had been cyberbullied and more than one-third had perpetrated aggressive behaviours.

In China, although studies of university students are scant, researchers have been investigating the issue of cyber aggression among adolescents and studies indicate that

cyberbullying has been prevalent (Zhou et al., 2013). For example, Huang and Chou (2010) reported that, in a sample of over 500 Taiwanese middle school students, more than one-third had been victimised and more than one-fifth had bullied others. Chang et al. (2013) conducted another study among nearly 300 10th grade students in Taiwan. The results indicated that more than one-third of the participants had been involved in cyber aggressive behaviours, either targeting or attacking others. In central China, Zhou et al. (2013) conducted a survey among more than 1000 Chinese middle school students (grade 10–12). The results showed that more than half of participants had been cyberbullied and more than one-third had bullied others. Despite researchers’ interest in cyber aggression, few studies have been conducted to investigate the prevalence of Chinese university students’ involvement in cyber aggression.

Research indicates that cyber aggression is a global issue and a prominent feature of young people’s lives. Although it is expected that university students are more mature than high school students, young people’s behaviours may continue from secondary school to university (Beran et al., 2012). Further, Schenk et al. (2013) argued that, based on the trend that cyberbullying increases from middle school to high school, it could be anticipated that such a trend could continue to university. The first quantitative research question asks ‘what is the prevalence of cyber aggression victimisation and perpetration among Chinese university students?’

2.1.1 How gender affects the prevalence of cyber aggression

There are no consistent findings on whether gender affects the prevalence of cyber aggression. Some studies indicate that there were no differences between male and female young people in either cyberbullying perpetration or victimisation. For example, Mishna et al. (2010) reported that among more than 200 Canadian middle and high school students, there was no difference in experiences between male and female students in grades six and seven. It was found that males and females had similar levels

of perpetration in grade six, seven and 10. MacDonald and Roberts-Pittman (2010) reported that, in a sample of more than 400 American university students, similar percentages (22%) of male and female students had been cyberbullied. Results from a study by Bauman and Baldasare (2015) demonstrated that males and females had similar levels of engagement in aggressive behaviours.

In contrast to the abovementioned findings that male and female young people experience similar rates of cyber victimisation and perpetration, other researchers reported gender differences. Akbulut and Eristi (2011) argued that, compared to females, males were more likely to be victims and perpetrators. This is aligned with findings from Huang and Chou (2010) that, among more than 500 Taiwanese adolescents, male students had greater involvement in both victimisation and perpetration than their female peers. Wright, Kamble et al. (2015) reported that, among a sample of nearly 500 Indian adolescents aged from 13 to 15, males were victimised by, and perpetrated, cyber aggression more than females. These findings were supported by Erdur-Baker (2010) and Wang, Iannotti and Luk (2012).

Dilmac (2009) argued that males are more likely to perpetrate cyberbullying, while females were more likely to be victimised. Findings by Aricak (2009) support this point in part. He found no significant gender differences in relation to cyber victimisation, but reported that males perpetrated cyberbullying more frequently than females. This is consistent with findings from Li (2006), Ybarra and Mitchell (2007) and Kowalski and Limber (2007) who reported that, compared to females, males engaged in cyberbullying more frequently. The above findings are consistent with study results by Calvete, Orue and Padilla (2010). In their study of more than 1000 Spanish adolescents, males (47.8%) reported perpetrating cyberbullying to a greater extent than females (40.3%). Hoff and Mitchell (2009) collected data from more than 300 undergraduate students and discovered that female participants experienced

significantly greater victimisation. This is consistent with other researchers’ findings that females are more likely to be victimised than males (Beckman, Hagquist & Hellström, 2013; Navarro, Serna, Martínez & Ruiz-Oliva, 2013; Slonje et al., 2012).

In contrast to the findings discussed above, other cyberbullying studies of middle school students indicate that female adolescents reported perpetrating cyberbullying more than males (Faucher et al., 2014). This is consistent with the argument by Pornari and Wood (2010) that females engage in more cyber aggressive behaviours than males. Schenk et al. (2013) surveyed a sample of approximately 800 American undergraduates. It was reported that 7.5% (n = 60) of participants had bullied others. Among these bullies, there were more females (56.7%) than males (43.3%). In Malaysia, Balakrishnan (2015) discovered that, among approximately 400 Malaysian young adults aged between 17 and 30, females reported bullying others more than males.

However, in mainland China, the limited findings of gender differences in cyber aggression studies demonstrate that Chinese male adolescents are more likely to be targeted by, and cyberbully, others than Chinese female adolescents (Zhou et al., 2013). In an extensive investigation into cyberbullying and aggression, gender is an important variable. However, findings on gender in relation to cyber aggression among Chinese university students are limited. The findings of this study will improve understanding of cyber aggression among emerging adults including how their online experiences vary between genders. Therefore, when asking the question of the prevalence, types and digital environments of cyber aggression in quantitative research questions 1, 2 and 3, the sub-question asking ‘how are they different in terms of gender?’ is included.

2.1.2 How year level affects the prevalence of cyber aggression

Research findings about how differences in age and year level affect cyberbullying and aggression are also inconsistent. Most studies of cyber aggression have focused on adolescents. Some researchers reported no significant correlation

between age and cyber victimisation. For example, Smith et al. (2008) discovered that, among a sample of young people aged between 11 and 16 from schools in London, there were no significant age effects. Griezel, Finger, Bodkin-Andrews, Craven and Yeung (2012) also reported that, among a sample of more than 800 Australian secondary school students, age had no significant effects on victimisation and perpetration.

Some study findings indicate that aggressive behaviours are more likely to occur among older adolescents (Raskauskas & Stoltz, 2007). For example, the study by Williams and Guerra (2007) demonstrated that students in grade five are less victimised than students in grade eight and 11. Kowalski and Limber (2007) reported that, compared to students in grade seven and eight, sixth grade students are less likely to engage in cyber aggressive behaviours. These findings indicate that cyber aggressive behaviours may increase with age (Kiriakidis & Kavoura, 2010).

Bauman and Baldasare (2015) argued that, although previous studies focused on adolescents, it was notable that cyber aggressive behaviours can occur in all age groups. They reported that first year tertiary students are less likely to be victimised by online aggressive behaviours. The study by Balakrishnan (2015) of emerging adults aged between 17 and 30 discovered that the age group from 21 to 25 reported the highest rates of victimisation and perpetration compared to the age groups of 17 to 20 and 26 to 30. University students are at a developmental stage in which they are transiting from late adolescence to emerging adulthood. Beran et al. (2012) argued that there is continuity in young people’s behaviours from secondary school to university. Researchers discovered continuous harassment behaviour among American and Canadian young people from high school to university. Longitudinal study results reported by Beran (2008) and Sourander et al. (2000) also showed continuity in young people’s victimisation experiences from one educational level to the next.

In spite of the extensive literature on the correlation between age or grade level and cyber aggressive behaviours, there is inconsistency in findings on year level differences in young people’s involvement. Further, similar investigations among Chinese university students have not been undertaken. Therefore, in this study, questions about year level differences were open-ended; when the prevalence, types and digital environments of cyber aggression involvement were asked in quantitative research questions 1, 2 and 3, the sub-question, ‘how are they different in terms of year level?’ was asked.

2.2 Types of Cyber Aggression Behaviours Experienced by Young People

In consideration of the inconsistent findings regarding differences in gender and year level in young people’s experiences of cyber aggression, types of cyber aggressive behaviours and the digital environments through which cyber aggression occurs are worth investigating (Underwood & Rosen, 2011). In both quantitative and qualitative studies, there were findings about types of cyberbullying and cyber aggression behaviours. It is suggested that cyber aggressive behaviours can take various forms; however, there is no agreement about what the categories of cyberbullying and cyber aggression are (Balakrishnan, 2015).

Raskauskas and Stoltz (2007) captured the essence of cyberbullying by describing it as a non-physical attack in an online environment. Such attacks include teasing, spreading false information to hurt someone and making mean comments and threats (Akbulut & Eristi, 2011; Beran & Li, 2005; Huang & Chou, 2010; Ybarra, Mitchell, Finkelhor & Wolak, 2007). Common types of cyberbullying identified by Srivastava et al. (2013) include name-calling in text messages, use of vulgar language, offensive words and abuse, denigration, disclosing someone’s sexual orientation without permission, sending mean pictures or videos to humiliate and internet flaming.

According to Moor, Heuvelman and Verleur (2010), internet flaming involves ‘displaying hostility by insulting, swearing or using otherwise offensive language’ (p. 1537). Cyberstalking is also a form of cyberbullying and was characterised by Pereira, Spitzberg and Matos, (2016, p. 255) as ‘a set of repeated and planned stalking behaviours in which a person imposes inappropriate and unwanted forms of communication, contact or an intention to approach in virtual space’. Balakrishnan (2015) identified other types of relational cyberbullying such as rumour spreading and sexting (i.e., sending sexually explicit images or messages about someone with the intention to damage their reputation or upset them emotionally). According to Willard (2007), cyberbullying also includes masquerading (i.e., pretending to be someone else and sending messages to make others look bad) and exclusion (i.e., intentionally excluding a person from an online group).

Mishna et al. (2010) detailed adolescents’ involvement in different types of cyberbullying victimisation and perpetration. Over one-quarter of participants reported being called names in an online environment. Other forms of victimisation included spreading rumours about the victim (22%), pretending to be the victim online (18%), threatening to hurt others (11%), receiving unwanted sexual pictures or texts (10%), being asked to do something sexual (9%) and someone disclosing the victim’s private pictures without permission (7%). For the forms of perpetration, more than one-fifth listed calling other people names. Other cyber aggressive behaviours included pretending to be someone else (14%), spreading rumours (11%), threatening to hurt others (5%), disclosing someone’s private pictures without consent (3%) and sending unwanted sexual pictures or text to someone (2%).

Washington (2014) investigated cyberbullying among more than 100 undergraduate students. Participants indicated that gossiping, making fun of others and name-calling were common forms of cyberbullying. In the second stage of the study by

Grigg (2012) of more than 100 British university students, approximately one in 10 participants classified ‘malicious information’ and ‘rude images’ as cyber aggression. One-third classified ‘unwanted messages’, ‘false identity’ and ‘threats’. According to Kokkinos et al. (2014), in a sample of more than 400 Greek university students, the most frequently reported forms of victimisation included posting hurtful materials, stealing others’ identity and pretending to be the victim, disclosing others’ personal information and excluding someone from social networking groups. Rumour spreading was reported the most frequently and was labelled as a type of indirect cyberbullying. Aricak (2009) conducted a study of nearly 700 Turkish undergraduate students and discovered that one-half of participants had masqueraded under a false identity, with male students outnumbering females in terms of pretending to be someone else. Findings by Faucher et al. (2014), from nearly 2000 Canadian university students, discovered that male self-identified cyber aggressors reported cases of humiliating, harassing and threatening a faculty member as a way of insulting and defaming the victim. Francisco et al. (2015) measured Portuguese college students’ perceptions of their involvement in cyberbullying. In their study, the victims and aggressors reported that the most common forms of cyberbullying included making fun of others, spreading rumours and insulting others.

Both quantitative and qualitative studies have explored young people’s experiences of cyberbullying and cyber aggression. For example, Mishna, Saini and Solomon (2009) conducted focus group interviews with adolescent students in Canada. Generally, respondents indicated that cyberbullying was a serious issue and could be even more serious than traditional bullying due to its characteristic of anonymity. The students suggested that cyberbullying mainly happened within their social networking relationships. Some students provided specific examples of cyberbullying. For example, a 10-year-old girl described cyberbullying as a different form of bullying due to the use

of computers. Some participants stated that they perpetrated cyberbullying in their own room at home, which they considered a safe environment.

In another qualitative study, Mishna, Mcluckie et al. (2009) collected and analysed a large number of anonymous online posts made by young people aged between 11 and 24 to the website of a national counselling service. They discovered that cyberbullying frequently occurred between friends and acquaintances. For example, a young person cited her friend’s hurtful comments about her, calling her ‘stupid’, ‘ugly’, ‘dorky’ and ‘boring’. Sexual orientation, physical appearance and popularity were associated with acts of cyberbullying. In addition, some young people mentioned being blocked from social networking groups as a form of rejection by their peers.

In the study by Hoff and Mitchell (2009), first and second year undergraduate students in the US were asked to provide an example of cyberbullying they have experienced. Findings demonstrated that online aggression was mainly due to relationship tensions, including break-ups, envy, intolerance (including prejudice against sexual orientation, disability, religion and gender) and ganging up (i.e., rejecting and excluding an individual from a group). In the environments of personal websites, messaging, emailing and blogs, some students reported unpleasant experiences of being degraded, embarrassed and threatened. Perpetrators called the victims mean names, sent them mean, cruel or hateful messages, described the victims as gay as an insult, made rude remarks, created and posted nasty pictures and videos about the victims and teased the victims. In these cases, not only were the members of the relationship involved, but the new boyfriend or girlfriend and other friends were also affected.

Cyber aggression is a complex phenomenon that is not easy to categorise (Griezel et al., 2012); however, there is a great need for further investigation into it (Grigg, 2012). In China, the cyber aggression study of university students is in its infant stage. Developing an in-depth study of different types of cyber aggression and how

these types differ in terms of gender and year level among Chinese university students will contribute to the literature on this subject. Therefore, the second quantitative research questions asks ‘what are the types of cyber aggression among Chinese university students?’ The first qualitative research question asks ‘what are the behaviours that Chinese university students experience in cyber aggression victimisation and perpetration?’

2.3 Involvement of Young People in Cyber Aggression in Various Digital Environments

Just as cyber aggressive behaviours can be perpetrated in a variety of forms, cyber aggression may occur in various digital environments (Srivastava et al., 2013). In some forms of electronic media, cyber aggression occurs more frequently (MacDonald & Roberts-Pittman, 2010). Balakrishnan (2015) reported mobile phone messaging, email and social network websites as common digital environments in which cyber aggressive behaviours occur. Akbulut and Eristi (2011) argued that, regardless of the participant’s age, education and internet skills, in the Facebook environment, cyberbullying behaviours were prevalent. Srivastava et al. (2013) argued that, among the common platforms of digital activities (i.e., the internet, social networking websites, mobile phones and online games), social networking websites and mobile phones had the greatest prevalence of cyberbullying. Srivastava et al. (2013) also provided some examples of social networking sites such as Facebook, Twitter and Myspace.

Drennan (2008) investigated Australian senior high school students’ experiences of bullying via mobile phones. They reported that more than 90% of participants had been targeted through mobile phones. In Taiwan, Huang and Chou (2010) investigated middle school students’ experiences of cyberbullying. In their study, they included five digital environments (i.e., instant messenger, chatroom, website and BBS, email and cell phone) of victimisation and perpetration. They reported that cyber victimisation

most commonly occurred in chatrooms. Instant messenger was the most commonly reported environment of perpetration. There is consistency between findings from Huang and Chou (2010), Navarro et al. (2013) and Walrave and Heirman (2011) that, in online chatting, emailing, blogging and instant messaging, a high percentage of cyber victims were reported. Spending considerable time in digital environments such as Facebook, Instagram and YouTube may leave school students at risk of being victimised (Floros, Siomos, Fisoun, Dafouli & Geroukalis, 2013; Kumazaki, Suzuki, Katsura, Sakamoto & Kashibuchi, 2011; Leung & Lee, 2012). Moreover, Floros et al. (2013) discovered that young people who frequently use these social networking sites intend to cyberbully others in the future. These findings concur with results from Park et al. (2014) who discovered that, among adolescents in South Korea, frequently using social networking platforms opens more possibilities for young people to become involved in cyberbullying. Mishna et al. (2010) separately investigated the online environments of victimisation and perpetration with a sample of more than 2000 American secondary school students. They reported that, among the victims, two-fifths were targeted online through instant messaging, one-quarter through email, more than one-tenth through online games and 10% through social networking. For perpetration, three-fifths of the bullies targeted others through instant messaging, 15% through social networking, one-tenth through emailing, one-tenth through online games and 5% through other websites.

Among young adults aged between 17 and 30, it has been reported that Facebook, Instagram and YouTube are known as popular social networking platforms (Balakrishnan, 2015). Faucher et al. (2014) examined a sample of nearly 2000 Canadian university students and discovered that more than one-half of participants were victimised in social networks, nearly half via email and text messaging and one-quarter in another online activity unrelated to study, such as blogs, forums and chatrooms. In

this study, female students reported being more likely to be cyber victimised through social networking platforms and text messaging. Males reported bullying others more through blogs, forums and chatrooms unrelated to study. The results of the study by Washington (2014) with a sample of more than 100 American undergraduate students showed that when bullies attacked others on Facebook, Twitter, via cell phone or text, the bullying was most likely to focus on the victim’s sexual orientation or race.

Current investigations into cyberbullying and cyber aggression indicate that there is great need for further studies on the digital environments of young people’s involvement in cyber aggression and how these differ according to gender and year level. In China, QQ, Weibo and WeChat are three of the most widely used social networking apps that are enormously popular among young people. By the end of 2014, over 600 million people were using WeChat, with each user reading approximately six articles per day (Tang, Wu, Huang & Liu, 2017). In addition, the growth of 4G technology with internet access for smartphones has provided young people with the ability to log into social networking sites without the limitation of time and location (Srivastava et al., 2013). However, investigations into digital environments in relation to cyber aggression among Chinese university students have not been conducted. The findings of this study will improve understanding of young Chinese people’s cyberbullying experiences in different digital environments. Therefore, the third quantitative research question asks ‘what are the digital environments in which cyber aggression among Chinese university students occurs?’

2.4 Young People’s Explanations for Online Aggressive Behaviours

In some cyberbullying and cyber aggression studies, young people provided explanations for online aggressive behaviours. Akbulut and Eristi (2011) argued that cyber victimisation was a strong motivation for cyberbullying; that is, some people are motivated to bully others because they have been victims themselves. This is consistent

with findings by Bauman (2010) who conducted an exploratory study in the US. Among rural adolescents, victimisation was the strongest predictor of perpetration and vice versa. Walrave and Heirman (2011) reported that, among Belgian adolescents, victims were more likely to perpetrate bullying. König, Gollwitzer and Steffgen’s (2010) findings indicated that participants (aged 11–25) who had been victimised by traditional bullying prefer to target their former aggressors in cyberspace.

Mishna, Saini et al. (2009) conducted interviews with young people between grades five and eight about their perceptions of cyberbullying. The students provided various explanations for aggressive online behaviours. Some participants indicated that some people bullied others as a joke without awareness of the victim’s feelings. Many students believed that some people who perpetrated cyberbullying were actually the ones who were timid and dared not bully others offline. According to the explanations of participants, this was due to the anonymity of cyberspace. A 10-year-old boy suggested that cyberbullying was much more harmful than offline bullying. This boy explained that, in the anonymous cyber world, the aggressors were not face-to-face with their victims, which made the aggressors feel less guilty. A 13-year-old girl held the similar opinion that, in cyberspace, bullies can easily hide themselves and avoid directly facing their victims. To summarise, Mishna, Saini et al. (2009) discovered that, according to perceptions of students, anonymity was key in cyberbullying, as it empowers bullies to hurt others without consequence. This is consistent with quantitative findings that cyberbullying is significantly related to anonymity (Aricak, 2009; Kowalski & Limber, 2007; McKenna & Bargh, 2000).

In a study by Faucher et al. (2014), university students reported their explanations for cyberbullying. Power and control were key motivations. Behind these motivations, students perpetrated insults, defamation, humiliation and harassment. Hoff

and Mitchell (2009) reported that undergraduate student participants provided four explanations for perpetration:

1. Retaliation; when a break-up of romantic relationship occurs, causing feelings of rejection and anger.
2. To vent frustration; when someone wants to build up a friendship or romantic relationship and is rejected or ignored or they are jealous of someone else's achievement.
3. Intolerance; when someone is small-minded and intends to cause negative feelings in other people (e.g., misery, sadness or helplessness) to feel better about themselves.
4. To achieve social status; when bullies reject or exclude victims from their groups to elevate themselves.

In addition, in the study by Hoff and Mitchell (2009), some participants believed that characteristics of anonymity empowered bullies to do or say things that they would not do or say in a face-to-face situation. However, Chinese university students' explanations for cyber aggression have not been investigated. Including the perspective of the students will improve understanding of the motivations and causes for Chinese young people's aggressive online behaviour. Therefore, the second qualitative research question asks 'what are Chinese university students' explanations for perpetrating cyber aggression?'

2.5 Effects of Cyber Aggression on Young People

The serious psychological harm caused by cyber aggression has compelled society to consider it an important issue (Akbulut & Eristi, 2011). Researchers used quantitative studies to examine the negative effects of cyberbullying on youth. Chin (2011) reported depression and anxiety in cyber victims among adolescents in Hawaii. Machmutow, Perren and Sticca (2012) argued that, among Swiss school students,

victimisation was strongly related to depression. Campbell et al. (2012) collected data from Australian adolescent cyber victims and discovered that anger, not feeling anyghing and sadness were the three most commonly reported feelings from the respondents.

It was discovered that, not only cyber victims, but also cyberbullies, experience emotional problems. Chang et al. (2013) conducted a survey among Taiwanese adolescents and discovered that both victims and bully–victims suffer from low self-esteem and high levels of depression. Bonanno and Hymel (2013) reported the problem of depression and suicidal thoughts among Canadian adolescents who perpetrated cyberbullying. Yang et al. (2013) reported findings from Korean school children that, for male students, depression was associated with cyberbullying experiences and both victims and perpetrators suffered from low self-esteem. In a study of Canadian university students by Faucher et al. (2014), females reported that cyberbullying affected their relationships inside and outside university. Participants also indicated that cyberbullying might cause friendship problems, exclusion and damage reputations.

In qualitative studies, researchers discovered that cyberbullying is emotionally harmful to young people. Campbell et al. (2012) collected data from student interviews in Australia and reported that adolescents felt that cyberbullying was more harmful than traditional bullying. Spears, Slee, Owens and Johnson (2009) conducted a qualitative study among Australian adolescent students, teachers and school counsellors. The findings indicate that, compared to offline bullying, cyberbullying arouses more negative feelings and emotions such as anger, sadness, fear and safety concerns.

Mishna, Saini et al. (2009) conducted focus group interviews with a sample of Canadian school students. Most participants suggested that, due to unlimited access to digital devices and technology, cyberbullying has become a type of bullying that extends from the school yard to the home and can be nonstop. Students used words such

as ‘everywhere’ and ‘widespread’ to describe the pervasiveness of cyberbullying. By contrast, some boys believed that cyberbullying was not a concerning issue and that it was a rare phenomenon. However, it was also indicated that, although cyberbullying is rare, once it begins, it can be serious and can cause depression and have other negative effects.

Slonje et al. (2013) interviewed Swedish secondary school students and collected examples of the negative effects of cyberbullying such as feeling creepy, not being able to sleep well and feeling lonely. It was also indicated that these effects could be long-lasting. Mishna, Saini et al. (2009) reported the effects of cyberbullying from the perspectives of children and youths. Some students indicated that great fear was caused by being threatened online by someone whose identity was unknown. Some participants suggested that cyberbullying could occur when they were at home and that this made them feel distressed and sad, as home is supposed to be safe but they were badly hurt in this safe environment. Mishna, Mcluckie et al. (2009) examined posts on a counselling service website by young people aged between 11 and 24. It was discovered that, when adolescents were blocked online by their peers, they felt ‘alone’, ‘sad’, ‘stressed’ and as if they had ‘no reason to live’. In addition to emotional distress, cyberbullying may also cause behavioural problems (Baek & Bullock, 2014). For example, Sticca, Ruggieri, Alsaker and Perren (2013) reported rule-breaking behaviours among Swiss adolescents such as destroying things, smoking, drinking alcohol, stealing and cheating.

In the study by Hoff and Mitchell (2009), undergraduate students reported that cyberbullying caused them negative psychological effects. Other than negative emotions caused by cyber victimisation, victims also reported high levels of feelings of powerlessness. Some respondents provided specific examples, with two major types: 1) Withdrawal behaviours, such as losing confidence, becoming timid at school,

disassociating from friends and lacking a sense of ease. 2) Increased aggression, such as becoming meaner, threatening others and spreading hurtful rumours.

Previous research findings indicated that cyber aggression is detrimental to various aspects of young people’s lives. It could be speculated that these findings are true for Chinese emerging adults. Therefore, the third qualitative research question asks ‘what are the effects of cyber aggression on Chinese university students?’

2.6 Young People’s Responses to Cyber Aggression

When Slonje et al. (2013) asked for Swedish adolescent students’ strategies for coping with cyberbullying, most students suggested technical methods such as blocking someone, changing passwords, user names or email addresses and not reading anonymous messages and deleting them. Some participants mentioned telling the bullies to stop. In terms of seeking help from adults, consistent with the abovementioned findings, respondents were reluctant discuss their problems with adults.

From the interviews by Mishna et al. (2009), it was discovered that all participants believed that parents and other adults did not sufficiently understand the online environment and lacked awareness of cyberbullying. Students chose not to tell their parents due fear of being deprived of computer privileges. Further, students did not believe that adults, including parents, would be able to help the victim discover who the bully is. Some students attempted to tell adults about their experiences; however, the only advice they received was to ignore it.

Similar findings were reported in another qualitative study conducted by Mishna, Mcluckie et al. (2009). They indicated that young people prefer not to share their hurtful online experiences with their parents and other adults. Even when some young people were experiencing great pain, they chose not to reach out to their parents for help and support. Some young people explained that this was primarily due to concerns about how their parents would react to their online activities.

Faucher et al. (2014) discovered that, compared to male university students, females were more likely to acknowledge the effects of cyberbullying and attempt to stop it. In addition, female participants were more likely to tell their close friends about their experiences. Few chose to talk to parents or school faculty.

The findings of a mixed methods study conducted by Hoff and Mitchell (2009) suggested that, in response to cyberbullying, male undergraduate students preferred active and physical responses such as physical assault for retaliation. Females chose passive and verbal responses such as changing their screen name or sending hurtful messages back to the perpetrator. Most participants chose avoidance, believing that the bullying would stop on its own. In terms of willingness to talk to adults—either parents or school officials—few students did so. They preferred not to confide in their parents, as they did not want to bother or annoy them or feared that they would be deprived of computer and cell phone privileges. Students did not tell school officials, as they believed school officials would not take their experiences seriously, would not deal with the issue confidentially or would not do anything about it.

No research has been conducted to investigate Chinese young people’s responses to cyber aggression. In this study, the fourth qualitative questions asks ‘how do Chinese university students respond to cyber aggression?’ It is expected that the reports of students will add new knowledge to existing findings.

2.7 Influence of Parents on the Response Strategies of Young People

More than 10 years ago, i-SAFE America (2004–2005) reported that more than one-half of American children preferred to surf the internet alone. It was also discovered that there had been lack of supervision over young people’s online activities due to parents’ unfamiliarity with social networking websites. One year later, another report from i-SAFE America (2005–2006) indicated that more than 90% of parents believed that they had been aware of their children’s online activities; however, more than 40%

of adolescent students indicated that they had not shared their online activities with their parents. Hoff and Mitchell (2009) argued that, due to their lack of personal experience with cyberbullying, teachers and parents would be unable to differentiate simple teasing from bullying. Their research also indicated that adults might not be aware of the harmful nature of cyberbullying.

According to these findings and students’ explanations (Mishna, Saini et al., 2009) that they prefer not to discuss their experiences of cyber aggression with their parents, there is reason to assume that parents have limited influence on how young people respond to cyber aggression. However, in Chinese culture, young people tend to have respect for adults (Li, 2008). Under these values, it is anticipated that parents have a certain level of influence on how young people respond to cyber aggression. Therefore, the final qualitative research question asks ‘how are Chinese university students influenced by their parents in their response to cyber aggression?’

2.8 Summary

Compared to quantitative studies in the field of cyber aggression, qualitative and mixed methods studies are limited. The existing literature on cyber aggression indicates that students hold the opinion that cyber aggression is pervasive among young people. They regard cyberbullying and cyber aggression as serious issues. Various motivations and causes have been found for young people’s online aggressive behaviours. Previous findings suggest that cyber aggression may happen in different types and digital environments. Hurtful online acts lead to a variety of negative effects on young people’s emotions and behaviours. When responding to cyber aggression, young people suggested technical means or talking to close friends, instead of seeking help from adults. Few findings indicate any influence from parents in the way young people deal with cyber aggression.

Despite the abovementioned findings, the mixed methods cyber aggression research is limited. Further, no similar studies of university students in the Chinese cultural context were discovered. In traditional aggression research, some cross-cultural studies indicated that there is less aggressiveness in Australia and some European countries than in the US (Bergeron & Schneider, 2005). This argument suggests that similar differences might also exist in cyber aggression studies. This study aims to contribute to building the literature in this area.

The first stage of this study uses a quantitative approach to investigate the rates of cyber aggression victimisation and perpetration and the types and digital environments of cyber aggression involvement among Chinese undergraduate students. Further, gender and year level differences are examined. Although the first part of this study depicts the overall trends of emerging adults’ involvement in cyber aggression, it does not include students’ stories of their online experiences. Livingstone and Haddon (2008) argued that there are less qualitative or mixed methods studies; as such, there is a lack knowledge of young people’s experiences and views in this area. Therefore, in the second stage of this study, the research stance is transformed from a large-scale quantitative study to an in-depth qualitative investigation. Students’ voices were collected and analysed so that a deeper understanding of the nature of cyber aggression could be achieved. The qualitative inquiry approach made it possible to examine important discourses and the nature of cyber aggression; areas that might be overlooked in the large-scale quantitative study (Mishna, Saini et al., 2009). In Chapter 3, the mixed methods of the current study are detailed to address the research questions. The quantitative research questions address the prevalence, types and digital environments of cyber aggression among Chinese university students. Gender and year level differences are also examined. Qualitative research questions address students’

experiences of, explanations for, effects of and responses to, cyber aggression and the influence of parents on the responding strategies of students.

2.8.1 Quantitative research questions

The quantitative research questions for this thesis are:

1. What is the prevalence of cyber aggression victimisation and perpetration among Chinese university students and how do they differ in terms of gender and year level?
2. What are the types of cyber aggression among Chinese university students and how do they differ in terms of gender and year level?
3. What are the digital environments in which cyber aggression occurs among Chinese university students and how do they differ in terms of gender and year level?

2.8.2 Qualitative research questions

The qualitative research questions for this thesis are:

1. What behaviours are experienced by Chinese university students in cyber aggression victimisation and perpetration?
2. What are the explanations of Chinese university students for cyber aggression perpetration?
3. What are the effects of cyber aggression on Chinese university students?
4. How do Chinese university students respond to cyber aggression?
5. How are Chinese university students influenced by their parents in the way they respond to cyber aggression?

Chapter 3: Study Methods

3.1 Explanatory Mixed Methods Sequential Design

A mixed methods approach was used for this study. Quantitative research is structured and is based on the philosophy of rationalism, which asserts that people can achieve knowledge through their capacity for reasoning (Teo, 2013). In contrast, qualitative research is unstructured and is based on the philosophy of empiricism, which declares that knowledge comes from sensory experiences (Creswell, 2013). Both approaches have their strengths and limitations. A mixed methods approach can help the researcher combine the strengths of quantitative and qualitative research (Kumar, 2014). For certain research problems, quantitative techniques are more suitable; for others, qualitative research is more appropriate. To achieve the objectives of this research, the two approaches have been combined.

In this study, a mixed methods explanatory sequential design assessed the problem of cyber aggression among university students. The explanatory sequential design was chosen due to the strengths indicated by Creswell and Clark (2011); that the design begins with a strong quantitative orientation so that the initial results can be objective. A structured inquiry was first used to collect quantitative data to discover the prevalence, types and digital environments of university students' involvement in cyber aggression. The quantitative data and results provided a holistic picture of cyber aggression among Chinese university students. The subsequent qualitative approach involving semi-structured interviews enabled the researcher to go beyond the quantitative study outcomes to provide an in-depth description and explanation of cyber aggression among Chinese university students. The combination of the two types of data allowed different perspectives of the problem to be explored.

Additionally, the two-phase structure of the explanatory design is practical and straightforward. The quantitative and qualitative methods were adopted in two separate phases of the study so that only one type of data could be collected at a time. The second stage of the design was informed by what was discovered in the first quantitative study. This provided emergent approaches with multiple perspectives of the research problem.

3.2 Ethics Approval

This research was approved by the Social Sciences Ethics Committee of Flinders University in South Australia. Participants were reminded before and throughout the study that their involvement was voluntary and that they could remove themselves from the study at any time, without consequence. All participants were volunteers and were of Chinese origin from one university which is located in mainland China. Students were informed that all responses were confidential and participation in the study would have no effect on their academic results. Before the research was conducted, the researcher obtained permission and consent from the university and participant. A letter of introduction, information sheet and consent form were provided to potential participants in Chinese.

The questionnaire survey was conducted in the classroom at the end of the student meetings on the university campus. First, the researcher explained the survey to the potential participants. Participants were reminded before the questionnaire survey that their involvement was voluntary and that they were not required to answer every question in the questionnaire. Then, students who were willing to participate completed the survey voluntarily. Questionnaire completion is considered consent. Only the researcher has access to the completed questionnaires. Participation was anonymous. The contact information for a free internal school counselling service and free external counselling service was provided in the information sheet and on a separate document at

the end of the questionnaire. It was suggested that participants remove it to take with them.

Individual interviews were conducted in an empty classroom on the university campus. The time and venue were set at the participant’s convenience. Before the beginning of the individual interviews, the signed consent form from each participant was collected. Any information identifying the participants was not transcribed and pseudonyms were used in the transcripts. Participants were informed that they could stop the individual interview at any time if they experienced discomfort and they could ask for any part of the interview to be omitted from the study. At the end of the interviews, the researcher thanked participants for their participation to make them feel that they contributed to this study.

3.3 Quantitative Study Method

An adapted questionnaire was used to investigate the cyber aggression experiences of Chinese university students. The questionnaire included questions about the prevalence of cyber aggression victimisation and perpetration in the previous 30 days, types and digital environments of cyber aggression, the individuals to whom the participants told about their experience, the feelings caused by their most recent experience of victimisation, offline aggression and the participant’s perspective on cyber aggression. Additionally, the questionnaire included social desirability questions, demographic information, the sheet of intention to participate in an individual interview and an information sheet about free counselling services.

All questionnaires were translated into Chinese by the researcher who is a native Chinese speaker. They were then back-translated back into English by a Chinese university teacher of English who is a certified translator. After the back translation was completed, the researcher sent it to her supervisors to determine how the questions compared with the original version. This was to ensure accuracy in the Chinese version.

In addition, spelling was checked and enough space was provided in the layout of the questionnaire for open-ended responses.

3.3.1 Questionnaire pilot

The questionnaire was piloted with six Chinese university students; one first year male student, three first year female students, one second year male student and one second year female student. All participants were volunteers before minor modifications were made and the questionnaire was administered to the study sample.

The researcher worked individually with each of the six students in an empty classroom. Participants were asked to answer the questions and tell the researcher if they found any questions confusing or difficult to answer. They were also asked for feedback about the format of the questionnaire as a whole.

Originally, the sheet of intention to participate in an individual interview was the final page of the questionnaire. The participants suggested that the ‘free counselling service’ page be moved to the end, as this would make it easier for them to remove the page and take it with them. Further, less than one-half of the page, instead of an entire page, was left for question 16: ‘Please use the space below to draw or write a story about your view of cyber aggression’. The participants indicated that leaving less space for this question made them feel less stressed when providing responses. The participants who were familiar with massive multiplayer online games checked and made some corrections to the Chinese translation of the names of the games.

The final Cyber Aggression Survey was a 10-page, single-sided, black and white A4 booklet. The questionnaire comprised 11 sections (see Appendix A):

1. Instructions – the cover page of the questionnaire contained instructions on how to complete the questions. The participants were asked to answer as honestly as possible and to not put their names on the survey. At the top of the second page, before the questions began, cyber aggression was defined.

2. Rates of witnessing others being victimised by cyber aggression in the past 30 days – the beginning of the survey questions. Responses were on a six-point Likert-type scale ranging from ‘never’ to ‘every day’.
3. Rates of cyber aggression victimisation in the past 30 days – in 24 items, the general rates, rates of different types of cyber victimisation and rates of cyber victimisation in various digital environments were measured. Responses were on a six-point Likert-type scale ranging from ‘never’ to ‘every day’.
4. Rates of cyber aggression perpetration in the past 30 days – in 24 items, the general rates, rates of different types of cyber aggression perpetration and rates of cyber aggression perpetration in various digital environments were measured. Responses were on a six-point Likert-type scale ranging from ‘never’ to ‘every day’.
5. Reaction to cyber victimisation experiences– the heading for this set of questions was ‘have you experienced cyber aggression in the past 30 days?’ Below this were the instructions ‘if your answer is yes, please continue with question 9. If no, please go to question 11’. Signs directing participants to questions 9 or 11 were also provided. The subsequent two questions were ‘in the last 30 days, who did you tell about your cyber-aggression experience?’ and ‘thinking about your most recent experience of cyber aggression, what did you feel when you were victimized?’ Participants were asked to answer the questions by filling in a circle for those that applied to them.
6. Three social desirability questions – responses were on a Likert scale ranging from ‘strongly disagree’ to ‘strongly agree’.
7. Offline aggression questions – before the questions began, the definition of offline aggression was provided. Participants were asked to indicate the rates

of witnessing other people being victimised by offline aggression and their experiences of offline aggression victimisation. Responses were on a six-point Likert-type scale ranging from ‘never’ to ‘every day’.

8. Views of cyber aggression – an open-ended question asking participants to draw or write a story about their views of cyber aggression.
9. Demographic questions – demographic information of the participants was collected on page eight. A thank you message and the heading ‘please provide some basic information about you by filling in the following blanks’ was printed at the top of this page. Participants were asked to provide their grade level, gender, study program and previous experiences of cyber and offline harassment and aggression.
10. Intention to participate in an individual interview – it was explained that there was an opportunity to provide more information and feedback about the participant’s cyberspace social interaction experiences. Additionally, it was guaranteed that this intention document would be kept separate from the questionnaire so that responses in the previous survey would remain anonymous. Following the question ‘are you willing to attend an individual interview after completing this survey?’ were the instructions ‘if yes, please provide the following information:’ Participants were asked to provide their contact information, name, gender, grade level and study program.
11. Free counselling service information – free counselling service information was provided on the final page of the questionnairre. Participants were reminded that they may remove this page and take it away.

3.3.2 Participants

A volunteer sample of 1191 university students from a middle-ranked municipal university in Beijing, China comprised the participants of this study. Students

were undertaking four year degrees in arts, history, law and science in this co-educational university, which enrols students from across China (e.g., Beijing, Shanghai, Shandong, Guangxi, Henan, Xinjiang, Tibet, Hong Kong and Taiwan). Students were all of Chinese origin and from all four year levels. Participants were informed that all responses would be confidential and participation in the study would have no effect on their academic results.

From the sample of 1191 university students, 108 responses were excluded. To be specific, 72 responses were excluded due to inappropriate responses (i.e., These 72 cases had self-contradicting responses to question 2 and question 8. For example, some students' responses to question 2 'In the last 30 days, how often have you been victimized by cyber aggression?' were 'Never', while 'Yes' to question 8 'Have you experienced cyber aggression in the past 30 days?'), 11 were discarded, as they contained high levels of socially desirable responding (SDR) and 25 were considered seriously incomplete. As a result, data from 1083 university students were included in the final analysis. As shown in Table 3.1, the proportion of university students from each year level was approximately the same (23.1%–25.8%). However, there were slightly more females (51.1%) than males (48.9%). The average age was 20.3 (SD = 1.45) years.

Table 3.1

Chinese University Student Sample

	Year 1 (18–19 years)	Year 2 (19–21 years)	Year 3 (20–22 years)	Year 4 (21–23 years)	Total
Male	135 (48.7%)	135 (48.4%)	132 (47.7%)	128 (51.2%)	530 (48.9%)
Female	142 (51.3%)	144 (51.6%)	145 (52.3%)	122 (48.8%)	553 (51.1%)
Total	277 (25.6%)	279 (25.8%)	277 (25.6%)	250 (23.1%)	1083 (100%)

3.3.3 Measures

The survey instrument used to measure cyber aggression was adapted from the survey by Hinduja and Patchin (2015); Cyber-bullying and Online Aggression Survey, in which the word ‘aggression’ was substituted for ‘bullying’. The modified and extended Cyber-bullying and Online Aggression Survey was renamed the Cyber Aggression Survey. It was used to assess rates of university students’ involvement in cyber aggression in the previous 30 days. During the last decade, Hinduja and Patchin have administered variants of the scale to over 15,000 students from over 100 middle and high schools in the US (Patchin & Hinduja, 2015). In a number of studies with different samples, it has demonstrated satisfactory psychometric properties (Brown, Demaray & Secord, 2014; Zerach, 2016). Therefore, the current survey instrument used the same time frame (i.e., the previous 30 days). Furthermore, to reduce recall bias, the scale requests information about cyber aggression experiences during the previous 30 days. A Cronbach’s alpha of the reliability of the 57 items measuring cyber aggression experiences on a sample size of 1083 students was .93.

The Hinduja and Patchin (2015) instrument includes 38 items that measure participants’ experiences of cyber aggression victimisation, perpetration, types, digital environments, how the participants responded to cyber aggression experiences and their feelings about their experiences. Respondents estimated, on a five point scale ranging from ‘never’ to ‘many times’, the frequency of being victimised by, and perpetrating, different types of cyber aggression in various digital environments. For example, ‘in the last 30 days, have you been made fun of in a chat room?’

On a five point scale ranging from ‘never’ to ‘many times’, the participants indicated to whom they have spoken with about their cyber aggression experience and what they felt when thinking about their most recent victimisation experiences. For example, ‘how often in the last 30 days, did you tell someone about the cyberbullying

experience?’ and ‘how did you feel about this cyber-bullying experience? (were you sad/scared/frustrated/embarrassed/angry/not bothered by it?)’.

This study has adapted and extended the Cyber-bullying and Online Aggression Survey in several ways. First, the definition of cyber aggression was provided for participants prior to the questions so that respondents read the definition by Schoffstall and Cohen (2011); that is, ‘cyber aggression is intentional behaviour aimed at harming another person or persons through computers, cell phones, and other electronic devices, and perceived as aversive by the victim’ (p. 588).

Second, changes were made to response anchors to make the descriptors more objective and to ensure consistency and continuity in the rating scales. The following rating descriptors were used: never, less than once a week, approximately once a week, two to three times a week, most days of the week and every day.

A third change to the Patchin and Hinduja (2015) instrument was the substitution of some terms for cyber aggression types and environments. In the original questionnaire, Facebook and Twitter were included. In mainland China, these platforms are not available, so students cannot use them. Therefore, Facebook and Twitter were replaced with the Chinese equivalents; WeChat, Weibo and QQ. These are popular and widely used social networking apps among Chinese university students.

In addition, three social desirability questions were added to the original questionnaire. SDR was defined by Nederhof (1985) as ‘the tendency … of subjects to deny socially undesirable traits and to claim socially desirable ones, and the tendency to say things which place the speaker in a favourable light’ (p. 264). Mills and Kroner (2005) argued that SDR, as a type of response bias, can confound self-report measures. Therefore, SDR requires close attention in the meaningful interpretation of self-reported information. Additionally, the current study is about cyber aggression, which is generally considered undesirable behaviour. It was conducted in the Chinese cultural

context, which is collectivist. Lalwani, Shavitt and Johnson (2006) suggested that there is a direct correlation between cultural orientation and SDR. For example, Triandis and Suh (2002) discovered that collectivism correlates with lying. Triandis (1995) and Ho (1976) indicated that collectivism is associated with face-saving behaviours. Findings from the cross-cultural study by Triandis et al. (2001) showed that there were greater tendencies towards deception among collectivist respondents than individualists. To measure SDR, three items (i.e., ‘I have always told the truth’, ‘I always share my snacks/treats’ and ‘I like everyone I have met’) were included to identify those responding in a socially desirable manner. In total, 11 participants (as stated above) who scored full marks on all three SDR items were removed from further analyses.

An open-ended question was included at the end of the questionnaire items. Space was provided for students to tell a story or draw a picture to indicate their opinions about cyber aggression. This provided respondents with further opportunities to tell the researcher about how cyber aggression affected them, their feelings as a result of the experience, their motivations for perpetrating and the strategies they adopted to protect themselves. This information helped the researcher to prepare individual interview questions for the second phase of the study.

3.3.4 Procedure

The final version of the Cyber Aggression Survey was presented to the university students in China at the conclusion of the student meetings for each year level. Approximately 10 minutes were spent providing a general introduction to the research and the instructions and examples on the questionnaire cover page so that all students received the same information. Students took between 10 and 15 minutes to complete the questionnaire. Participants placed completed questionnaires into opaque envelopes without names. The envelopes were sealed. Nobody knew who had completed each questionnaire. Only the researcher had access to the completed

questionnaires. This was to ensure anonymity for participants. Students who did not wish to participate left the classroom so that they did not distract the participants. Student affair officers were assigned to each department (to provide necessary assistance with students’ study, campus life and financial difficulties) and assisted the researcher to collect completed questionnaires to improve the efficiency of data collection. They did not see the questionnaires that had been placed in the sealed envelopes.

3.3.5 Data analysis

SPSS v 24 was used to examine rates of cyber aggression victimisation, perpetration, types and digital environments and gender and year level differences. Statistical methods included Pearson Chi-square and One-Way ANOVA. Parametric statistics are robust to skewed data such as ANOVA. Effect sizes were measured using Phi, Cramer’s V and r (Field, 2018). Factor reliability was assessed using Cronbach’s alpha. An approach suggested by Zhou et al. (2013) was used to categorise levels of cyber aggression involvement. Average victimisation and perpetration scores were categorised as:

- moderate – average scores that were less than once a week
- serious – average scores that were once a week or more.

3.4 Qualitative Study Method

In the first stage of this study, at the conclusion of the questionnaire on a separate document, participants indicated whether they would be willing to participate in an individual interview. Information, including their name, gender, grade level and contact information, was collected. This document was kept separate from the questionnaire to preserve confidentiality. Potential participants who indicated willingness to participate in interviews were contacted by the researcher via email. The

researcher discussed the time and venue for the interview to arrange them at the participant’s convenience.

The interviews were semi-structured. The researcher used an interview guide, which was a list of issues to be explored to address the research questions of Study 2. The issues included cyber aggression experiences, students’ explanations for cyber aggression behaviours, effects of cyber aggression behaviours, students’ responses to behaviours and the influence of parents on the responding strategies of the students. Each issue had a series of questions that could have been asked. The semi-structured interview guide included the following questions:

1. What is happening in this picture?
2. Why does it happen?
3. What are the effects of this behaviour?
4. How could the victim respond to this?
5. What could or should parents and teachers do about it?
6. Does this sort of thing ever happen in your class or school or to the people around you?
7. Can you please talk about it more specifically?/Can you please explain it?
8. What were the effects of that behaviour?
9. How did your schoolmate or friend respond to it? Did they tell their parents, teachers or friends about it? What suggestions did their parents, teachers or friends provide?
10. What did you feel about this story? What is your general opinion about cyber aggression?
11. What do you and your schoolmates or friends expect parents and teachers to do in such circumstances?

3.4.1 Individual pilot interviews

To rehearse the individual interview procedures and to evaluate plans and make necessary adjustments, three pilot interviews were conducted. The participants were all Chinese undergraduate student volunteers and included a female from first year, a male from second year and a female from third year of one comprehensive university in Beijing Municipality, China. They had all participated in the previous questionnaire survey.

The three pilot individual interviews were conducted in an empty classroom within the university. The procedure was the same as that used for the main study (see Section 3.4.2). However, each pilot individual interview lasted less than 20 minutes and different pictures that were drawn by participants in response to question 16 in the Cyber Aggression Survey for the questionnaire survey were used for each pilot interview.

As a result of the pilot study, two revisions were made to the main study. One was that each main study interview should last approximately 30 minutes. As such, more opinion questions (e.g., ‘what other classmates thought about his/her story?’) and feeling questions (e.g., ‘what other feelings/emotions might be caused by that incident?’) were included to pursue deeper information about what each respondent was saying. The other change was that the stimulus drawings were re-evaluated and only one was selected for all of the interviews in the main study. The selected drawing depicted a complete and typical cyber aggression scenario for Chinese university students, including a victim, a perpetrator, hurtful online behaviour and the victim’s reaction, as shown in Figure 3.1.

3.4.2 Main study individual interviews

The 24 young people (see Table 3.2) participated in the final individual interviews. Interviewees were male and female undergraduate students from all four year levels aged from 18 to 22 from one comprehensive university in Beijing Municipality, China. As shown in Table 3.2, the proportion of participants of each gender was approximately the same. However, there were more first, second and third year students than fourth year students.

Table 3.2

Participants in the Pilot and Main Study Individual Interviews

	Male	Female	Total
Year 1	3	4	7
Year 2	5	3	8
Year 3	3	5	8
Year 4	2	2	4
Total	13	14	27

Before the beginning of the individual interviews, a signed consent form was collected from each participant. Each individual interview was conducted within a 30 minute time frame in an empty classroom in the university. The purpose of the study and the voluntary nature of participation were explained so that the participants understood that they could withdraw from the study at any time without consequence and could ask for any part of the interview to be omitted from the study. No participants withdrew or asked for changes to their transcripts.

A digital voice recorder was placed on the table between the researcher and the participant. The purpose of the recording was explained and student permission reconfirmed. After the introduction, the stimulus drawing (see Figure 3.1) was shown to each participant. Although this stimulus drawing represents a typical cyber aggression

scenario, it is not gender neutral. Some study participants recognised that, in the drawing, the aggressor was male and the victim was female. Students argued that, according to their experiences, such gender roles are not necessarily true. This is discussed in Chapter 6.

Figure 3.1. Stimulus drawing for main study individual interviews.

This is a participant’s response to Question 16 in the Cyber Aggression Survey for Study 1. The drawing depicts a scenario in which the aggressor (a male) lies on a bed and is saying something unpleasant to the victim via cell phone. The victim (a female) is reading the unpleasant information and is crying on her bed.

According to advice offered by Owens et al. (2000), the idea of this stimulus drawing is to prompt the students to discuss their experiences in relation to cyber aggression. It is closely related to undergraduate students’ experiences, as it was drawn by one of them. In addition, it is a less stressful introduction than if the participant was immediately asked about their cyber aggression experiences.

The participant was asked questions about what was happening, why it happens, the effects of this behaviour, how the victim could respond and how teachers and parents influenced their response strategies. After the participant described the stimulus drawing and expressed their opinions and feelings about it, the following question asked

‘does this sort of thing ever happen in your school or among the people around you?’ The conversation continued with the focus on relevant experiences of cyber aggression.

3.4.3 Data analysis

Data from the interviews were transcribed and the participant’s responses were translated from Chinese into English by the researcher. To preserve confidentiality, the data cannot be linked to an individual or organisation in any way. Each participant was given a pseudonym.

A series of categories were predetermined from the study’s theoretical framework before the interview guide was formed. The main categories included experiences, explanations, effects, responses and parents’ influence. Each interview was transcribed and introduced as a document in the NVivo 11 computer program. Each document was intensely investigated.

Based on Miles, Huberman and Saldana’s (2014) list of tactics for drawing meaning from displayed data and for testing and confirming findings, the researcher used the following strategies to draw meaning from the data and assess data quality. One is a pre-specified coding scheme developed on the basis of the research questions and other relevant findings. Meanwhile, the researcher remained alert for other categories suggested by the data (Punch & Oancea, 2014) and recurring themes were coded into NVivo nodes. For example, the frequent mention ‘to have excitement and fun’ repeated by 23 students was coded as a category of explanation for cyber aggression. In addition, counts and comparison were used to judge the consistency and number of times each category occurred. For example, 21 of the 27 respondents mentioned the category of ‘mean pictures’ when they reported experiences of cyber aggression. However, only two students mentioned ‘outing’. This helped the researcher decide that the category of ‘mean pictures’ was more recurrent compared to ‘outing’. As such, when reporting and discussing results, ‘mean pictures’ was included and ‘outing’

was excluded. After discussion with two experienced researchers in the field of peer relationships, it was decided that themes repeated by 20% of the participants could be considered ‘frequently mentioned’ and these were included in the results.

Another strategy that was taken by the researcher was that clear operational definitions linking data indicators and conceptual codes were set so that they could be applied over time. For example, rumours were defined as ‘the spreading of nasty information designed to be hurtful about others in online environments’. Gossiping was defined as ‘idle talks in online environments about others’ personal affairs, ways of life or behaviours, always in hurtful ways’. These definitions helped the researcher distinguish the categories of rumours and gossiping when coding the data.

3.4.4 Determining the rigour of the qualitative study

Four criteria were applied to ensure the rigour of the qualitative study. These four criteria were identified by Guba (1981), discussed by Sandelowski (1986) and implemented by Owens et al. (2000). They are credibility, fittingness, auditability and confirmability.

To achieve credibility and fittingness, the feedback of this study was posted on the official WeChat account of the university so that every participant could access it. The researcher’s contact information was included so that the students would be able to contact the researcher via email about their opinions about the findings. This was to provide the participants with an opportunity to check whether the researcher’s representation of their understandings of cyber aggression accurately reflected their experiences. It provided the participants with an opportunity to add any further ideas and to suggest modifications or changes to how the researcher represented their views. It gave students who were not included in the study the opportunity to check whether the researcher’s representations of undergraduate students’ experiences of cyber aggression ‘fit’ their experiences. Neither further information nor disagreement about

the study feedback was indicated by the students. Only 11 students replied to the post with simple agreement such as ‘agreed’ or ‘that was true’.

To achieve auditability, standard research procedures were adopted so that another researcher would be able to analyse the data. The typed transcripts and NVivo analyses have been maintained on a password-protected USB flash disk. The research report includes materials justifying the purpose and significance of this study and an explanation of the data collection and analysis procedures. With the credibility, fittingness and auditability established, this study fulfils the criterion of confirmability.

Chapter 4: Results from Study 1

The results from the data analyses of Study 1 are organised into four sections: Chinese university students’ rates of cyber aggression victimisation, rates of cyber aggression perpetration, types of cyber aggression and digital environments in which the cyber aggression occurs. As discussed in Chapter 3, rates were classified into three categories of never, moderate (less than once a week) and serious (once a week or more). These are used to classify all cyber victimisation and cyber perpetration types and experiences.

4.1 Cyber Aggression Victimisation

4.1.1 Rates of cyber aggression victimisation

As shown in Table 4.1, just over one-quarter (29.8%, n = 323) of participants had not experienced any cyber aggression victimisation in the previous 30 days. More than one-half (52.7%, n = 571) of participants experienced moderate levels of cyber victimisation. Nearly one in five (17.5%, n = 189) participants described experiences that could be considered serious incidents of victimisation. This included a small proportion (0.6%, n = 7) of students who reported experiencing victimisation on a daily basis.

Table 4.1

Rates of Cyber Aggression Victimisation among Chinese University Students

	Never	Less than once a week	Approximately once a week	2–3 times a week	Most days of the week	Every day
Total	323 (29.8%)	571 (52.7%) moderate	146 (13.5%) → serious victimisation (17.5%)	32 (3%)	4 (0.4%)	7 (0.6%)

4.1.2 Rates of cyber aggression victimisation – differences between genders

There were significant differences in rates of cyber aggression victimisation between genders (F (1) = 7.74, $p < 0.01$). As shown in Figure 4.1, male participants were more likely to be victimised than females. Of participants who had not experienced cyber aggression victimisation, most were female (58.8%, n = 190). Male students (51.3%, n = 293) were more likely to experience moderate levels of victimisation. Further, compared to females (45%, n = 85), males (55%, n = 104) reported higher rates of serious cyber victimisation.

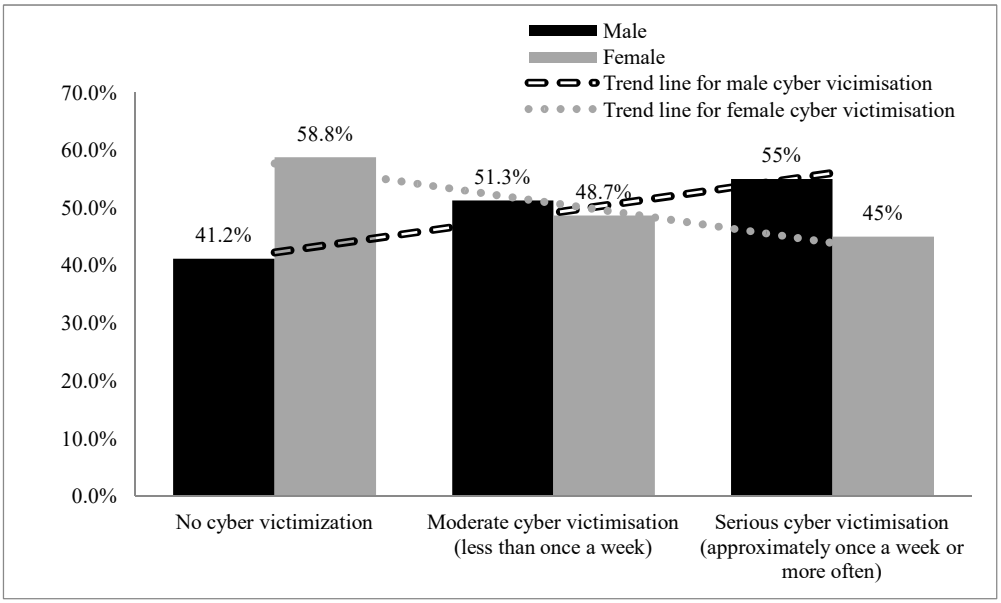

Figure 4.1. Cyber aggression victimisation of male and female Chinese university students.

4.1.3 Rates of cyber aggression victimisation – differences between year levels

Differences in rates of cyber aggression victimisation between year levels were statistically significant ($F(3) = 14.07$, $p < 0.001$). University students in their final year of undergraduate studies reported higher rates of victimisation than students in the other year levels. As shown in Figure 4.2, the trend of non-cyber victimisation rates slightly increased from first, second and third year. The rates of fourth year decreased significantly. In contrast, the trend of moderate cyber victimisation rates in first, second, third and fourth year steadily decreased. Fourth year students were more likely to be victimised at a serious level and this difference was significant. The rate of serious cyber victimisation in fourth year (43%) was more than double that of first year (19%).

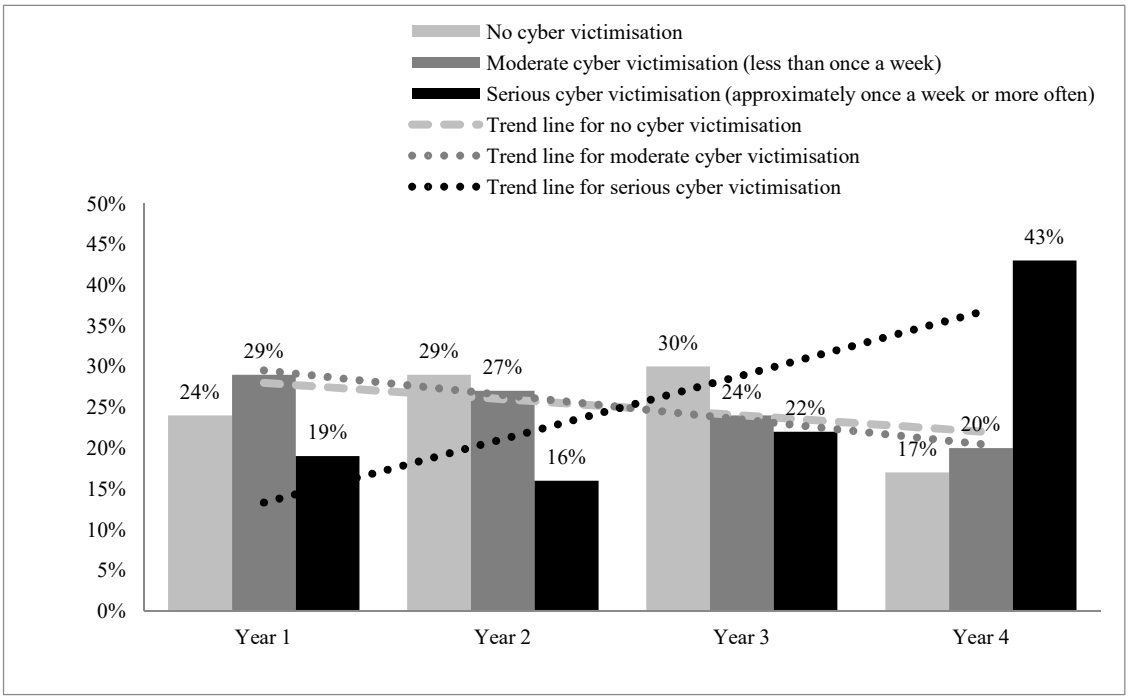

Figure 4.2. Cyber aggression victimisation of Chinese university students in different year levels.

4.1.4 Cyber aggression victimisation by gender and year level

As shown in Figure 4.3, for both males and females, rates of cyber victimisation experiences increased in the final year of their undergraduate studies,

although it did not, on average, increase to a serious level. In their first three years, male university students were more likely to experience cyber aggression victimisation, while in fourth year, female students reported higher rates of cyber victimisation. The only salient difference was found in third year (X^2 (4) = 10.6, $p < 0.05$, Cramer's $V = 0.20$), when male students were discovered to have significantly higher rates of cyber victimisation than females. Further, Cohen's effect size value (d = 0.38) suggested a low to moderate practical significance.

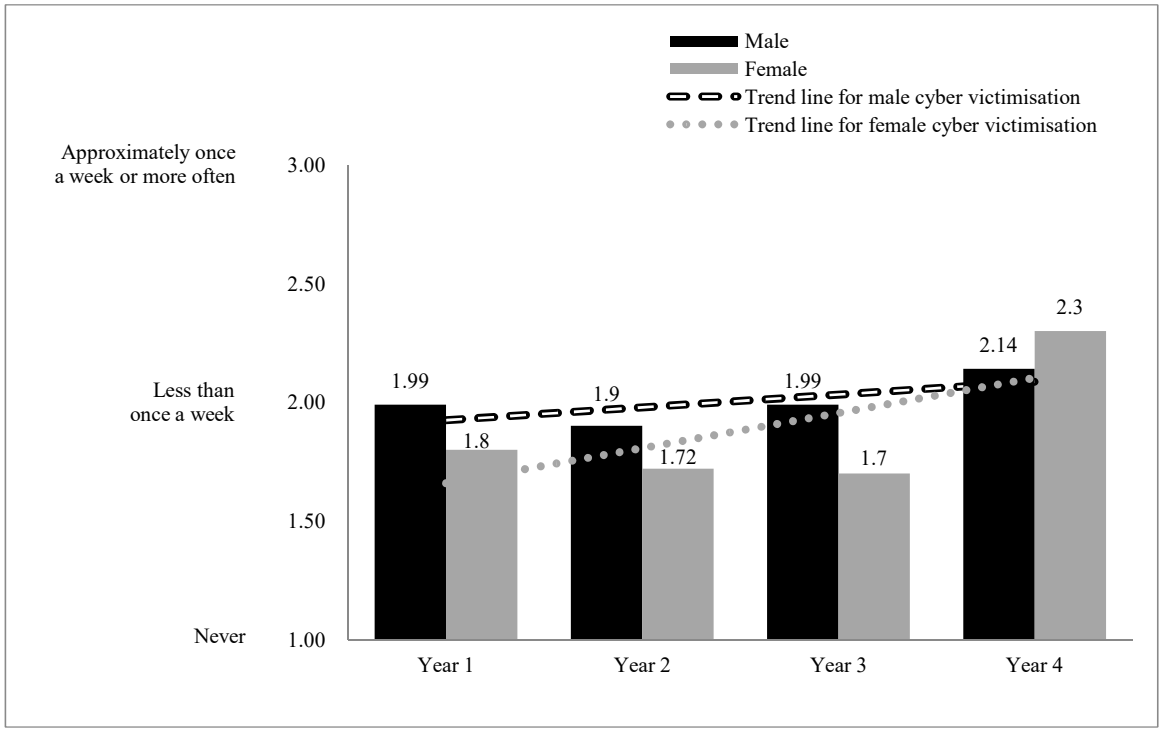

Figure 4.3. Differences in rates of cyber aggression victimisation between genders and year levels.

4.2 Cyber Aggression Perpetration

4.2.1 Rates of cyber aggression perpetration

As shown in Table 4.2, more than one-third of participants (37%, n = 401) had not perpetrated any cyber aggression in the previous 30 days. The rate of moderate perpetration (46.7%, n = 506) was nearly three times the rate of serious perpetration (16.2%). It is noteworthy that the overall rate of serious cyber victimisation (17.5%)

was comparable to that of serious cyber aggression perpetration (16.2%). A small proportion (0.7%, n = 8) of students had been victimised on a daily basis, while no student reported perpetration every day. Further, the overall rate of moderate victimisation (52.7%) was higher than that of moderate perpetration (46.7%).

Table 4.2

Rates of Cyber Aggression Perpetration among Chinese University Students

	Never	Less than once a week	Approximately once a week	2–3 times a week	Most days of the week	Every day
Number	401	506	135	33	8	0
(%)	(37%)	(46.7%) moderate	(12.5%) → serious cyber aggression perpetration (16.2%)	(3%)	(0.7%)	(0%)

4.2.2 Rates of cyber aggression perpetration – differences between genders

Compared to female participants, males were more likely to perpetrate cyber aggression. The differences were statistically significant ($F(1) = 22.12$, $p < 0.001$). Of participants who had not perpetrated cyber aggression in the previous 30 days, more than one-half were female students (59%, n = 235). For moderate (i.e., less than once a week) perpetration, over one-half were male students (51%, n = 250). As shown in Figure 4.4, among participants who reported a serious level of perpetration, 61% (n = 116) were male.

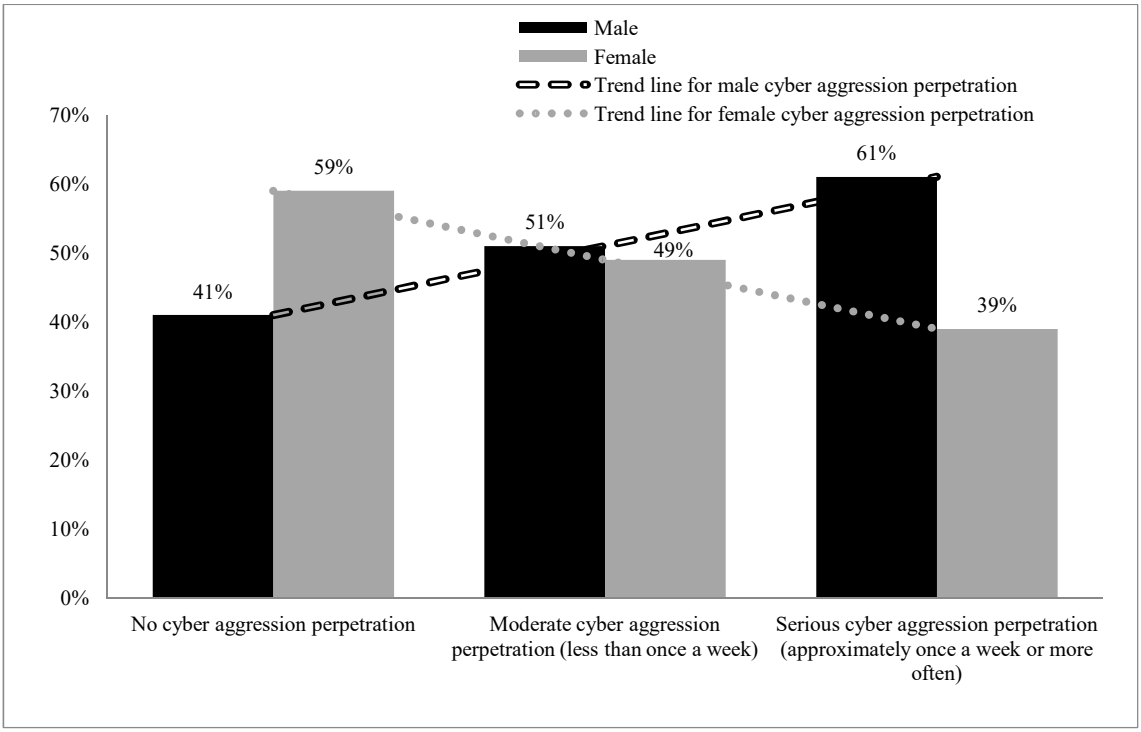

Figure 4.4. Cyber aggression perpetration of male and female Chinese university students.

4.2.3 Rates of cyber aggression perpetration – differences between year levels

Students in their final year of undergraduate degree studies were more likely to perpetrate cyber aggression than participants in other year levels ($F(3) = 4.81$, $p < 0.01$). As shown in Figure 4.5, the rate of serious perpetration during fourth year (36.6%) was double that of first year students (18.8%). This is consistent with the increasing trend in rates of serious cyber victimisation. Among first year students, the rate of serious cyber victimisation was 19%, with 43% in fourth year.

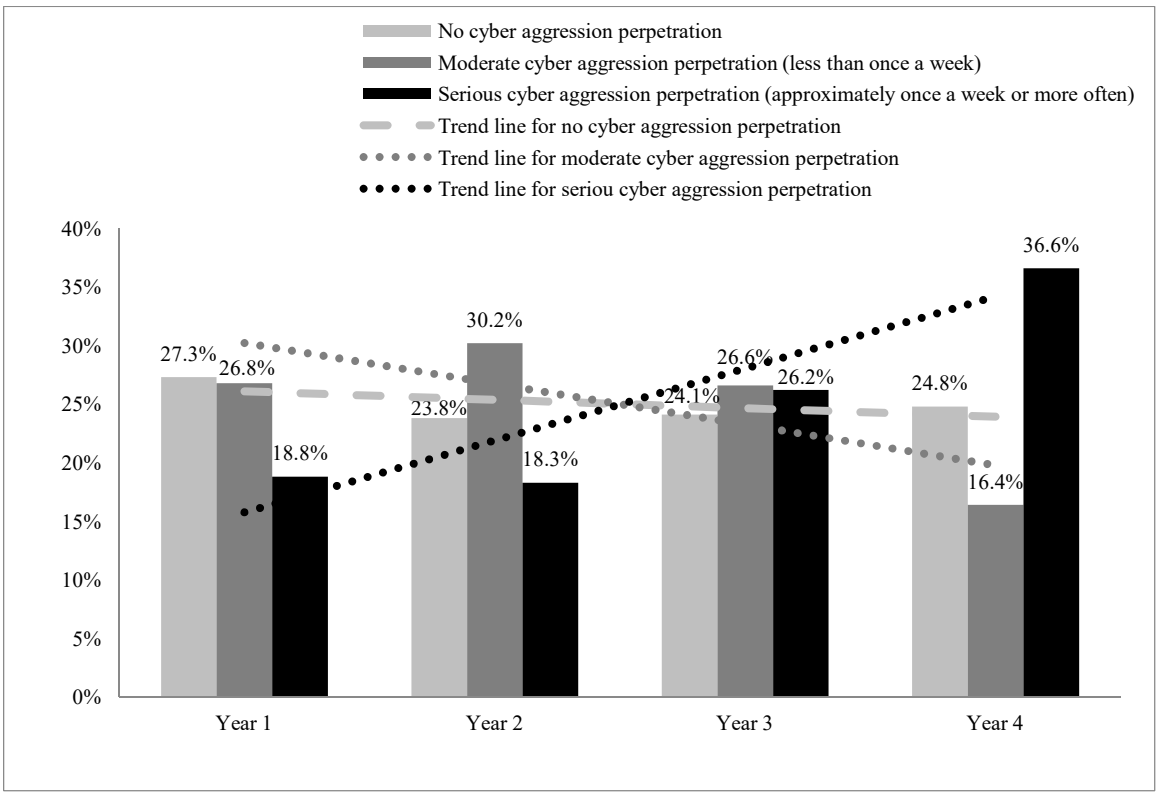

Figure 4.5. Cyber aggression perpetration of Chinese university students in different year levels.

4.2.4 Cyber aggression perpetration by gender and year level

For both male and female participants, cyber aggression perpetration rates increased, although not to a serious average level. In the four years of education, male participants were more likely to experience cyber aggression perpetration than females. The differences in second year (X^2 (2) = 11.18, $p < 0.01$, Cramer’s $V = 0.20$) and third year (X^2 (2) = 12.78, $p < 0.01$, Cramer’s $V = 0.22$) were statistically significant compared to other year levels, as shown in Figure 4.6. Further, Cohen’s effect size values in year 2 (d = 0.38) and year 3 (d = 0.32) suggested a low to moderate pratical significance. These findings demonstrate that, overall, male and female students in fourth year are more likely to target others online than students in the other year levels.

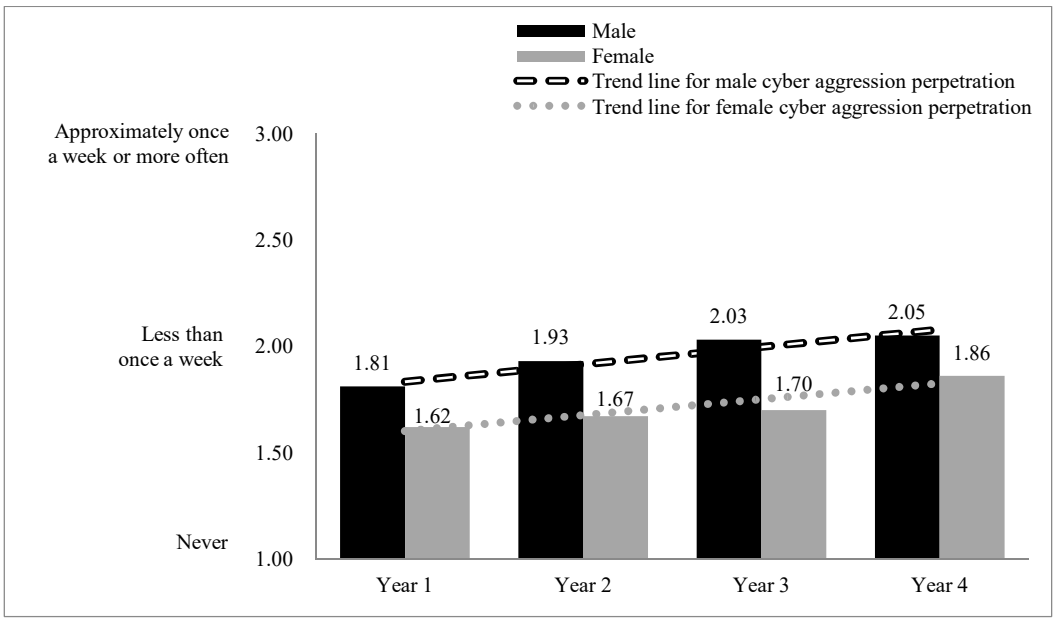

Figure 4.6. Differences in rates of cyber aggression perpetration between genders and year levels.

In the semi-structured interviews in Study 2, some participants indicated an overlap between the roles of victim and aggressor. Therefore, an examination of the correlation between victimisation and perpetration was added to the data analysis in Study 1. As shown in Table 4.3 and Table 4.4, there were significant correlations between cyber aggression victimisation and perpetration experiences, suggesting that students who experienced higher levels of victimisation may also perpetrate higher levels of cyber aggression against others. One-quarter of participants (25%, n = 271) reported neither victimisation nor perpetration. Over one-third of participants (36.66%, n = 397) experienced moderate levels of both victimisation and perpetration. More than 10% of participants (11.1%, n = 120) experienced victimisation and perpetration at serious levels.

Table 4.3

Correlation between Cyber Aggression Victimisation and Perpetration among Chinese University Students

		Cyber aggression victimisation	Cyber aggression perpetration
Cyber aggression victimisation	Pearson correlation	1	0.652**
Cyber aggression perpetration	Pearson correlation	0.652**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.4
Rates of Overlap between Cyber Aggression Victimisation and Perpetration among Chinese University Students

		Cyber aggression victimisation		
		Never	Moderate	Serious
Cyber aggression perpetration	Never	271 (25%)	115 (10.6%)	13 (1.2%)
	Moderate	40 (3.7%)	397 (36.7%)	56 (5.2%)
	Serious	12 (1.1%)	59 (5.4%)	120 (11.1%)

4.3 Types of Cyber Aggression Victimisation and Perpetration

4.3.1 Types of cyber aggression victimisation

In total, eight types of cyber aggression victimisation and perpetration were examined. Overall, the level of serious victimisation in all eight types ranged from 3.8% to 9.4%. As shown in Figure 4.7, the most commonly reported type of victimisation was mean or hurtful comments. Approximately two out of five participants (40.3%, n = 436) were moderately victimised by this (i.e., hurt by others’ mean or hurtful comments less than once a week). Nearly 10% (9.4%, n = 102) experienced serious victimisation of this type. The second-most commonly experienced type of victimisation was spreading rumours. Approximately one-fifth of participants (19.8%, n = 214) reported being victims of rumours at a moderate level. At a serious level, 6.9% (n = 75) of participants had been victimised by rumours approximately once a week or more. The least-reported type of cyber aggression victimisation was mean or hurtful web pages. More than 5% of participants (5.5%, n = 60) experienced a moderate level of cyber aggression of this type. This rate was approximately one-seventh of the most experienced cyber aggression type (i.e., mean or hurtful comments). Less than 5% (4.8%, n = 52) experienced serious cyber aggression victimisation involving rumours. This was approximately one-half of the most experienced cyber victimisation type.

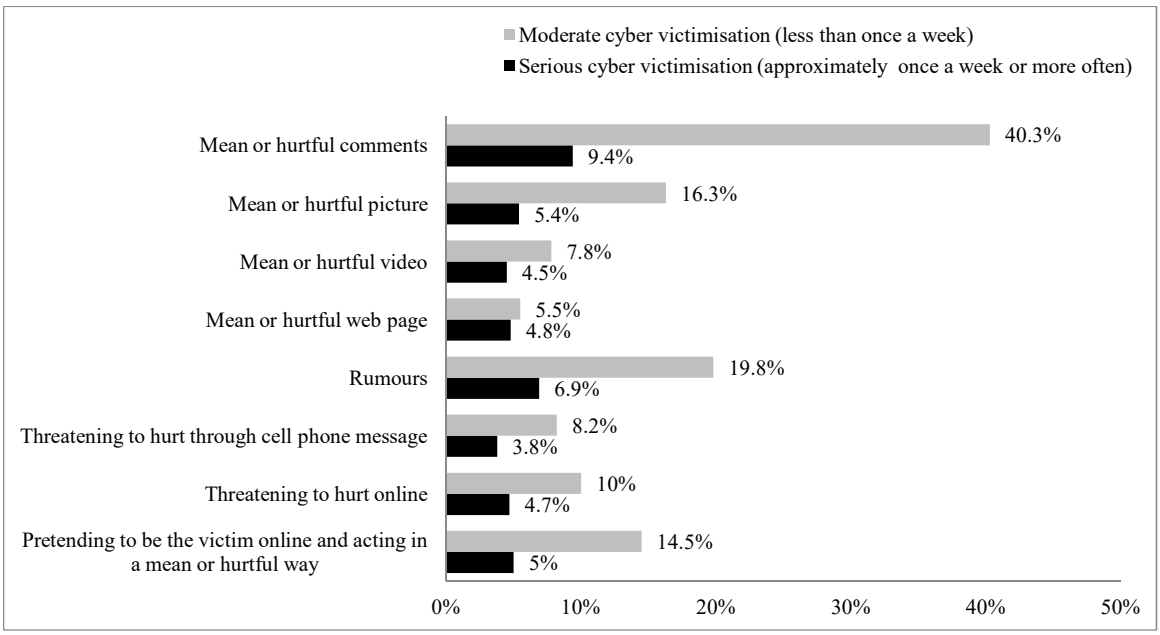

Figure 4.7. Types of cyber aggression victimisation.

4.3.1.1 ***Types of cyber aggression victimisation – differences between genders***

There were significant differences in threatening to hurt someone online (F (1) = 10.23, $p < 0.01$) and pretending to be the victim online and acting in a mean or hurtful way (F (1) = 33.84, $p< 0.001$) between genders. In these types of victimisation, male students were more likely to be victimised than females. However, compared to mean or hurtful comments and spreading rumours, threatening to hurt online and pretending to be the victim online and acting in a mean or hurtful way were reported less.

As shown in Figure 4.8, compared to female participants, males were more likely to be threatened. Male students (67.6%, n = 73) were twice as likely as females (32.4%, n = 35) to report moderate levels of being threatened, while more than half of serious victims experiencing this type of aggression were male (54.9%, n = 28).

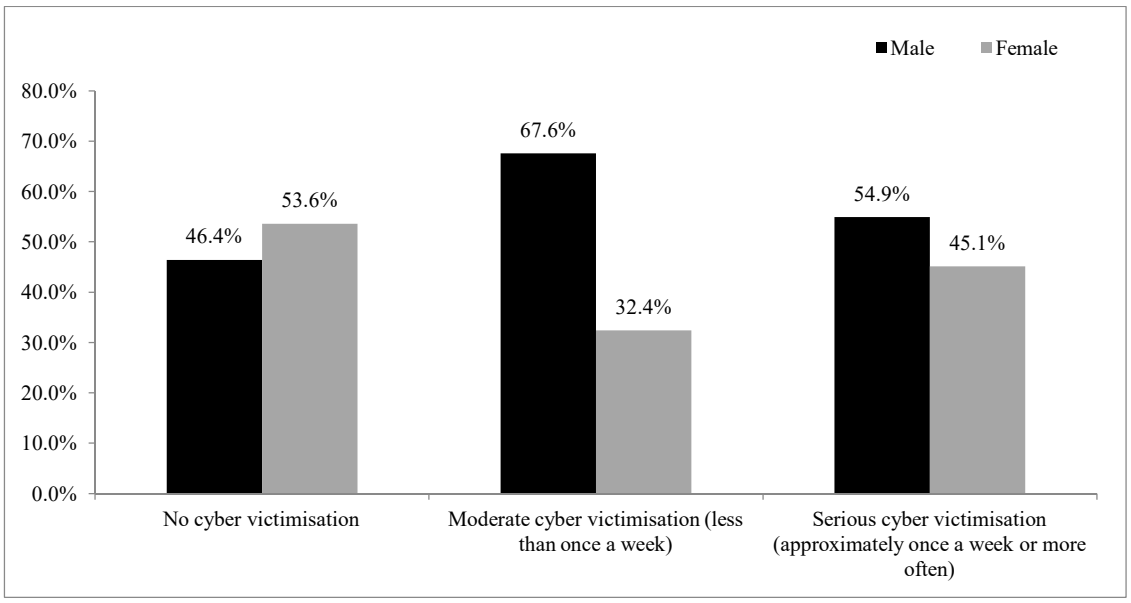

Figure 4.8. Threatening to hurt someone online among male and female students.

As shown in Figure 4.9, compared to female students, males were more likely to be victimised through pretending to be the victim online and acting in a mean or hurtful way. Male students (65%, n = 102) were nearly twice as likely as female students (35%, n = 55) to report moderate levels of this type of victimisation. More than two-thirds of serious victims of this type were male (72.2%, n = 39).

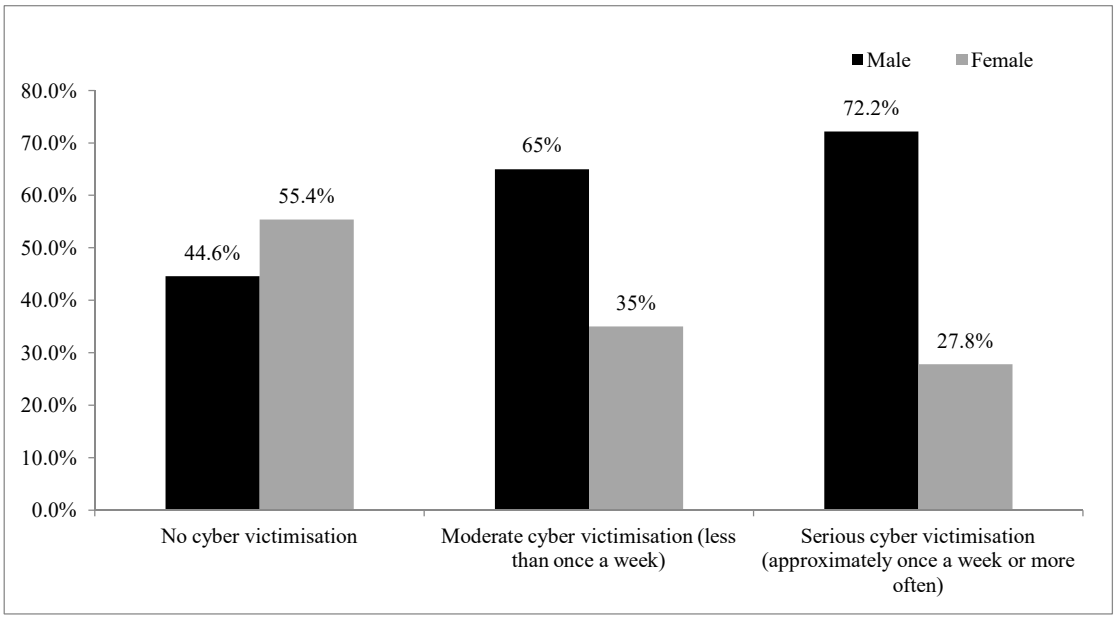

Figure 4.9. Pretending to be the victim online and acting in a mean or hurtful way among male and female students.

4.3.1.2 *Types of cyber aggression victimisation – differences between year levels*

As reported below, significant year level differences were discovered in making mean or hurtful comments ($F(3) = 11.32$, $p < 0.001$), making mean or hurtful pictures ($F(3) = 20.65$, $p < 0.001$), making mean or hurtful videos ($F(3) = 28.47$, $p < 0.001$), creating mean or hurtful web pages ($F(3) = 37.23$, $p < 0.001$), spreading rumours ($F(3) = 20.41$, $p < 0.001$), threatening to hurt someone through cell phone messages ($F(3) = 29.45$, $p < 0.001$), threatening to hurt someone online ($F(3) = 23.00$, $p < 0.001$) and pretending to be the victim online and acting in a mean or hurtful way ($F(3) = 9.18$, $p < 0.001$). As shown in Figures 4.10 to 4.17, the trend of no cyber victimisation of the above types decreased from first year to fourth year. The trend of no cyber victimisation slightly increased in the first three years, but decreased significantly in fourth year.

However, at the moderate level of victimisation, the general trend of most types (except for mean or hurtful comments, pretending to be the victim online and acting in a mean or hurtful way) can be observed increasing. The overall trend of participants’ serious victimisation experiences in the reported types was increasing from first year to fourth year. This trend is consistent with previously reported results that students in fourth year were more likely to be victimised at a serious level.

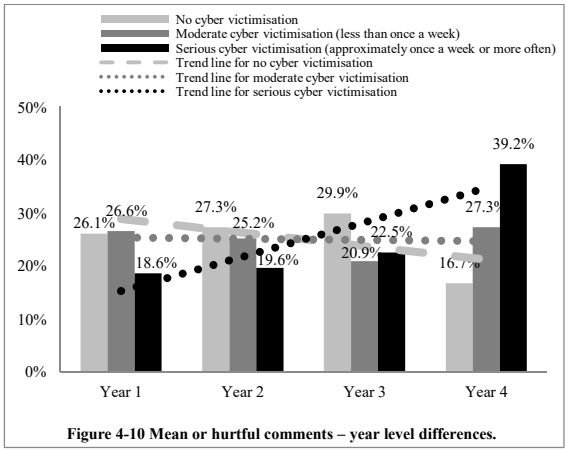

Figure 4-10 Mean or hurtful comments – year level differences.

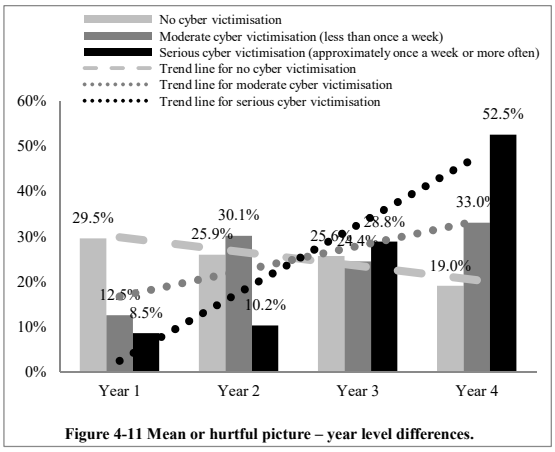

Figure 4-11 Mean or hurtful picture – year level differences.

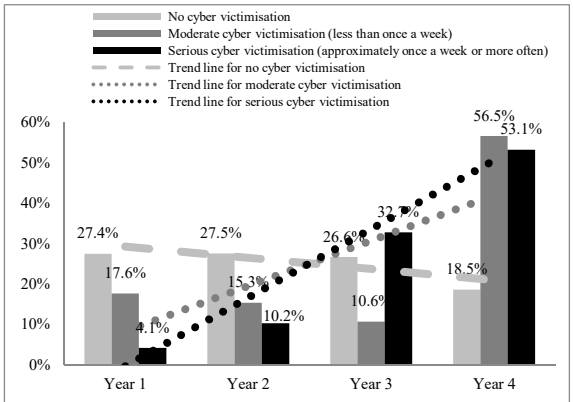

Figure 4-12 Mean or hurtful video – year level differences.

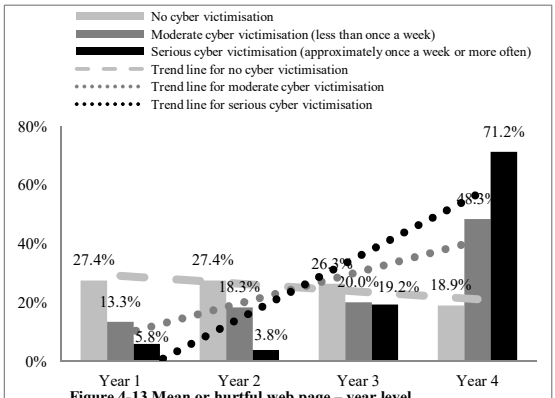

Figure 4-13 Mean or hurtful web page – year level differences.

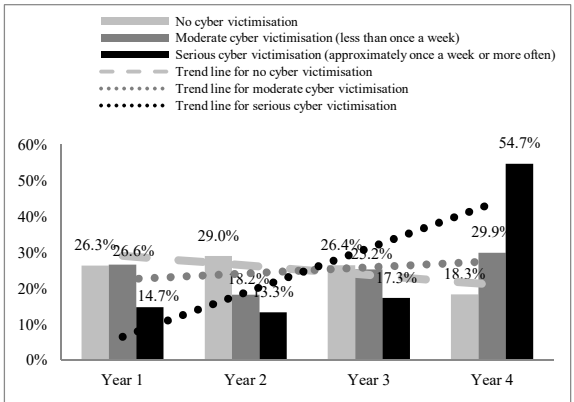

Figure 4-14 Rumours – year level differences.

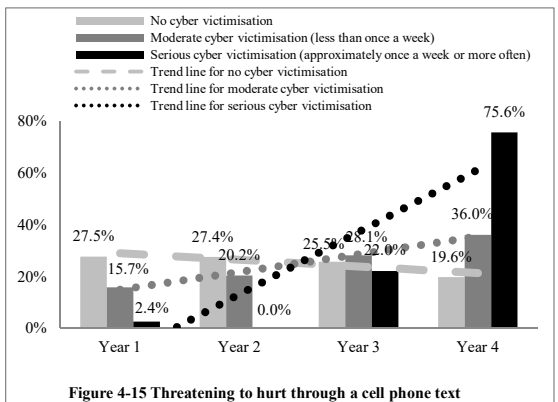

Figure 4-15 Threatening to hurt through a cell phone text message – year level differences.

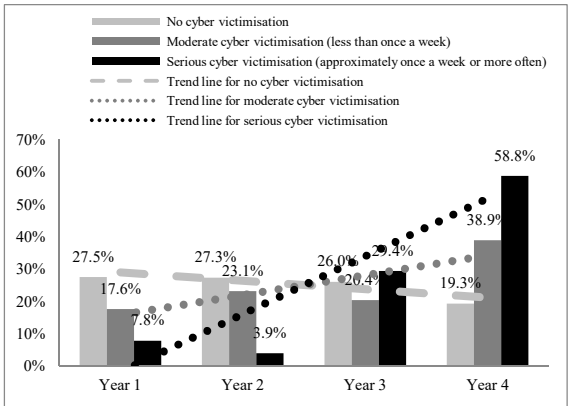

Figure 4-16 Threatening to hurt online – year level differences.

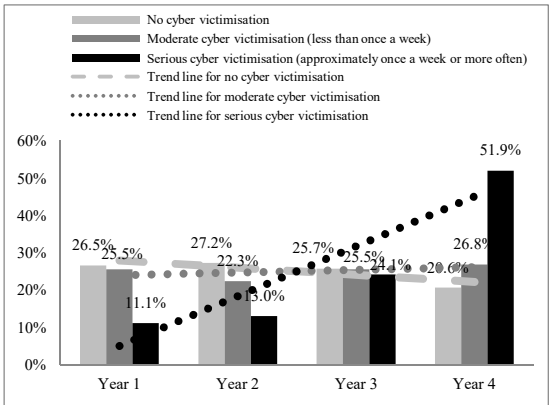

Figure 4-17 Pretending to be the victim online and acting in a way that was mean or hurtful – year level differences.

4.3.2 Types of cyber aggression perpetration

Overall, the level of serious cyber aggression perpetration in all eight types ranged from 2.5% to 9.7%. This range is comparable to that of the cyber victimisation types. As shown in Figure 4.18, the most commonly reported type of cyber aggression perpetration was making mean or hurtful comments, which was also reported as the most commonly experienced type of cyber victimisation. Nearly one-third of participants (32.9%, n = 356) perpetrated it less than once a week and approximately 10% of participants (9.7%, n = 105) attacked others in this way approximately once a week or more. The second-most common type of perpetrated cyber aggression was spreading rumours. This is consistent with findings of the types of cyber victimisation in which spreading rumours was the second-most reported type of victimisation. More than 10% of students (13%, n = 141) targeted others in this way at a moderate level and 5.6% (n = 61) perpetrated it at a serious level.

The least-reported type of cyber aggression perpetration was threatening to hurt someone through cell phone messages. Participants who perpetrated this at a moderate level involved 5.1% (n = 55) of participants, while 2.5% (n = 27) undertook this type of cyber aggression at a serious level. Such rates were less than one-half of the rates of the second-most reported cyber aggression perpetration type (i.e., spreading rumours). Previously reported findings about cyber victimisation types indicate that the rate of threatening to hurt someone through cell phone messages was also relatively low. Therefore, the findings about the types of victimisation and perpetration were consistent.

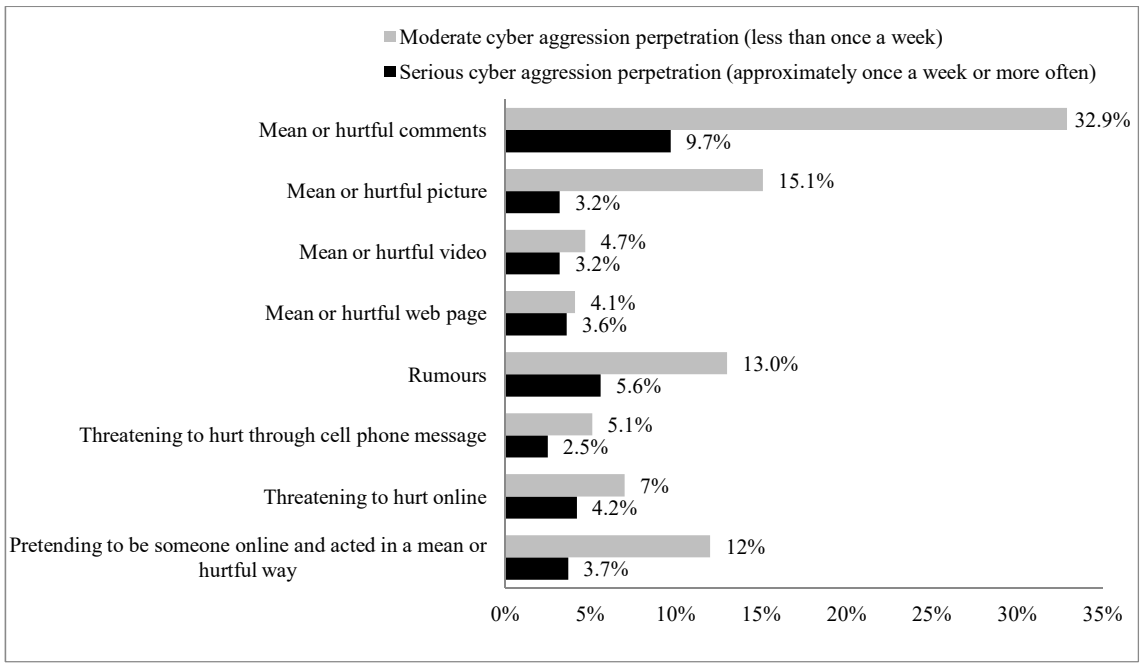

Figure 4.18. Types of cyber aggression perpetration.

4.3.2.1 ***Types of cyber aggression perpetration – differences between genders***

As reported below, there were significant differences in threatening to hurt someone online ($F(1) = 12.55$, $p < 0.001$), pretending to be the victim online and acting in a mean or hurtful way ($F(1) = 22.68$, $p < 0.001$) between genders. These types were also reported as the cyber aggression victimisation types with significant gender differences.

As shown in Figure 4.19, male participants were more likely to threaten to hurt someone online than females. Of the participants who had perpetrated this type of cyber aggression at a moderate level, male students (63.2%, n = 48) outnumbered female students (36.8%, n = 28). Further, male students (66.7%, n = 30) were twice as likely as females students (33.3%, n = 15) to report serious levels of threatening to hurt someone online. In this type, trends of cyber victimisation rates at moderate and serious levels are consistent with rates of perpetration. Male students were more likely to be victimised by, and perpetrate, threatening to hurt someone online.

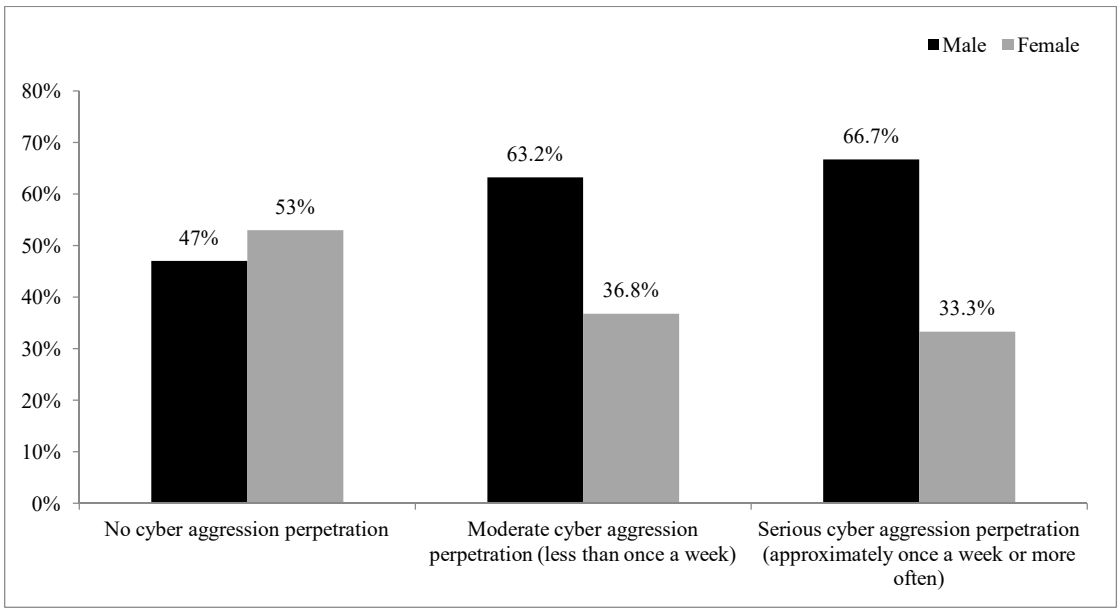

Figure 4.19. Cyber aggression perpetration – threatening to hurt online among male and female students.

As shown in Figure 4.20, compared to female students (29.2%, n = 38), male students (70.8%, n = 92) were more likely to pretend to be the victim online and act in a mean or hurtful way at a moderate level. Of participants who perpetrated this type of cyber aggression at a serious level, female students accounted for 40% (n = 16) and male students accounted for two-thirds (60%, n = 24). In this type, the trends of cyber victimisation rates at moderate and serious levels are consistent with that of cyber aggression perpetration rates. Males were more likely to be victimised by, and perpetrate, cyber aggression in pretending to be the victim online and acting in a mean or hurtful way.

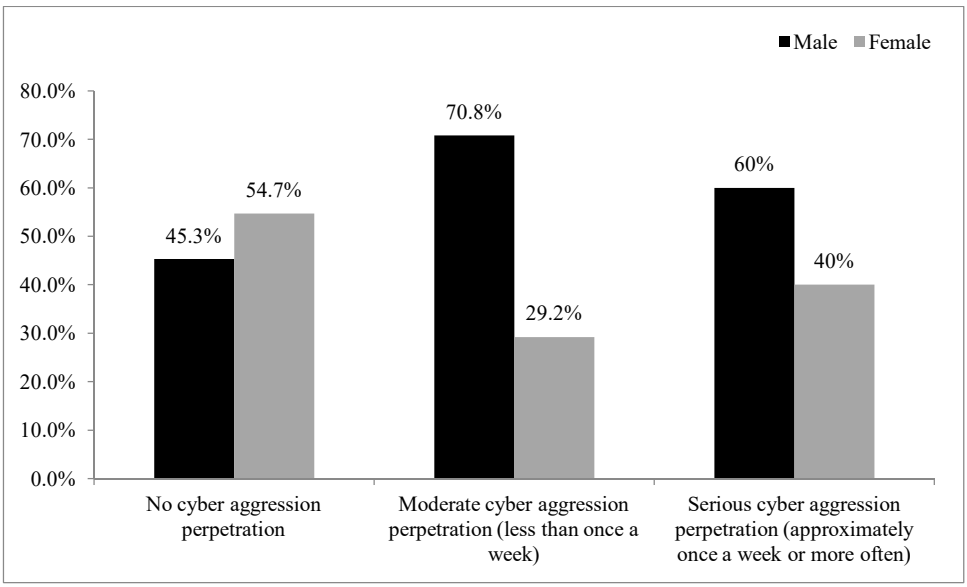

Figure 4.20. Cyber aggression perpetration – pretending to be the victim online and acting in a mean or hurtful way among male and female students.

4.3.2.2 ***Types of cyber aggression perpetration – differences between year levels***

Significant differences between year levels were discovered for making mean or hurtful pictures (F (3) = 11.4, $p < 0.001$), making mean or hurtful videos (F (3) = 8.84, $p < 0.001$), creating mean or hurtful web pages (F (3) = 9.01, $p < 0.001$) and threatening to hurt someone online (F (3) = 10.03, $p < 0.001$). These four types of cyber aggression behaviours were reported as the cyber victimisation types with significant differences between year levels.

As shown in Figures 4.21 to 4.24, the general trend of no experience of cyber aggression perpetration in these four types was decreasing in all year levels. However, at the moderate and serious levels of cyber aggression perpetration, the overall trends were increasing. These trends are consistent with previously reported results that students in their final year of study are more likely to perpetrate cyber aggression than participants in the other year levels.

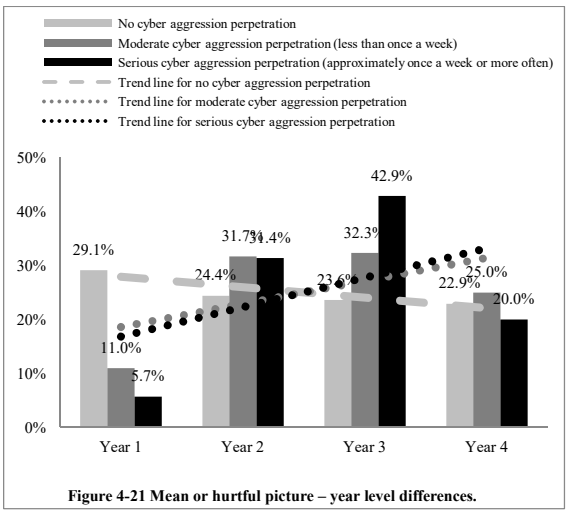

Figure 4-21 Mean or hurtful picture – year level differences.

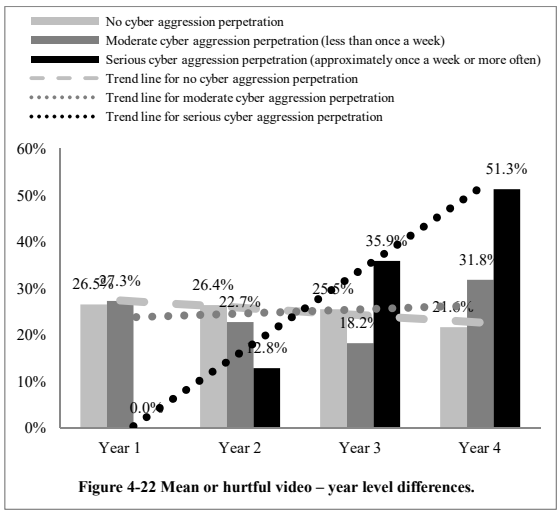

Figure 4-22 Mean or hurtful video – year level differences.

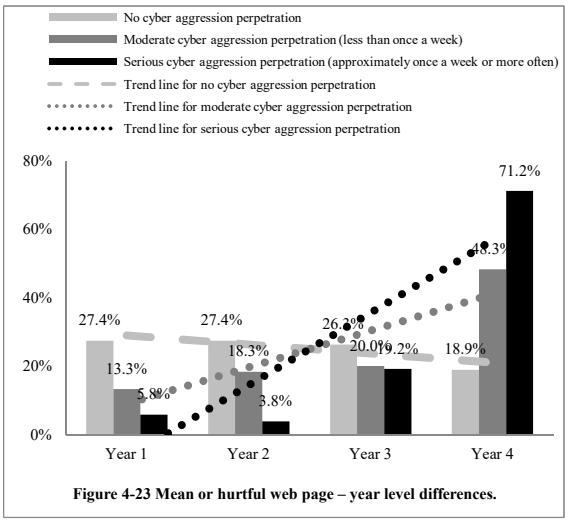

Figure 4-23 Mean or hurtful web page – year level differences.

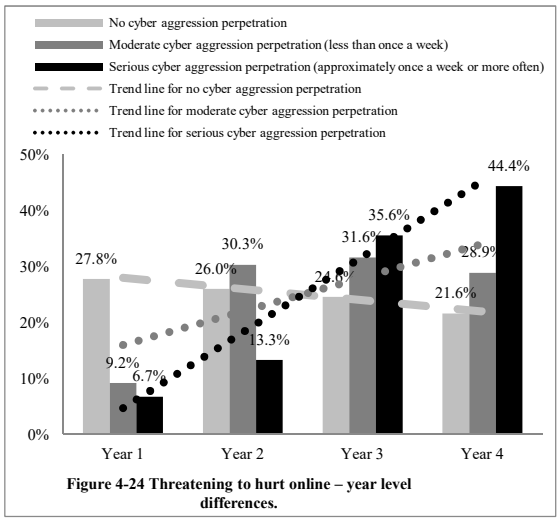

Figure 4-24 Threatening to hurt online – year level differences.

4.4 Digital Environments of Cyber Aggression Victimisation and Perpetration

4.4.1 Digital environments of cyber aggression victimisation

In total, 13 digital environments of cyber aggression victimisation and perpetration were examined. Overall, the level of serious victimisation in all 13 digital environments ranged from 3% to 8%. As shown in Figure 4.25, the most commonly reported digital environment in which victimisation occurred in the previous 30 days was WeChat. Over one-quarter of participants (25.4%, n = 275) reported experiencing cyber victimisation in this environment less than once a week and 5.4% (n = 59) were victimised by cyber aggression in WeChat approximately once a week or more. The

second-most commonly reported digital environment of cyber aggression victimisation was massive multiplayer online games in which less than one-quarter of participants (23.6%, n = 256) reported being victims at a moderate level and 6.7% (n = 73) of participants experienced victimisation at a serious level. The least-reported digital environment of cyber aggression victimisation was Youku. In this environment, 4.7% (n = 51) of students reported being victimised at a moderate level. This rate is approximately one-fifth of moderate cyber victimisation in the massive multiplayer online game environment. For serious victimisation, 3.3% (n = 36) of participants were victimised in Youku. This rate is approximately half of the serious victimisation in the massive multiplayer online game environment.

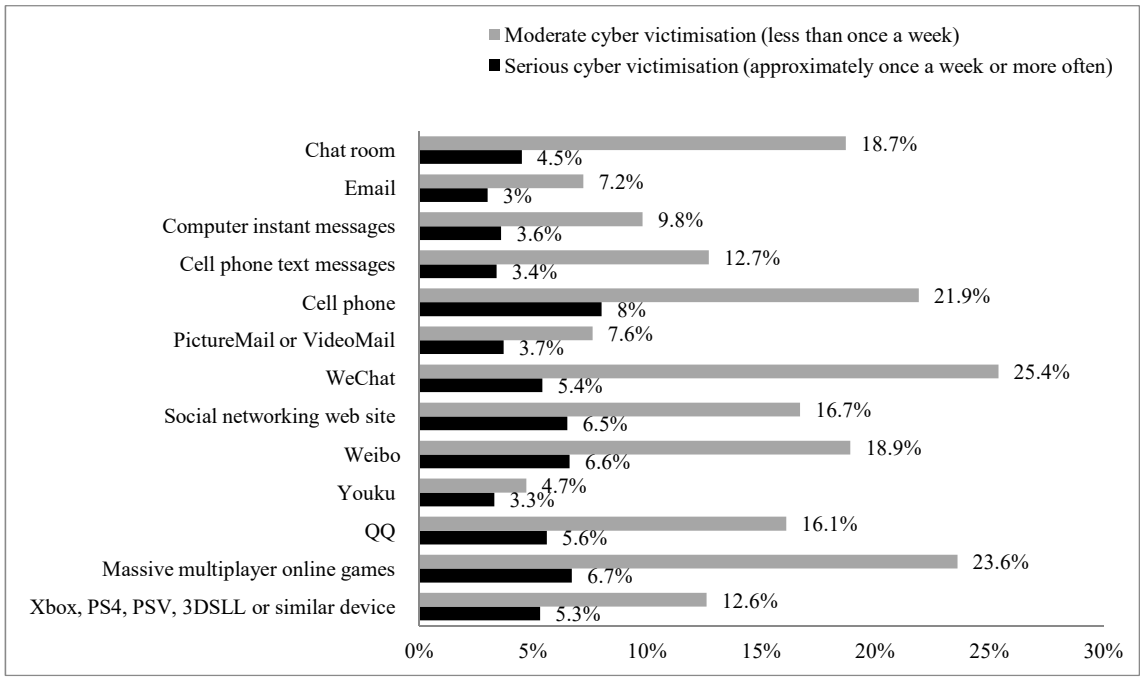

Figure 4.25. Digital environments of cyber aggression victimisation.

4.4.1.1 ***Digital environments of cyber aggression victimisation – differences between genders***

There were significant differences between male and female participants in their experiences of cyber aggression victimisation in Weibo (F (1) = 25.58, $p < 0.001$), massive multiplayer online games (F (1) = 101.55, $p < 0.001$) and Xbox, PS4, PSV,

3DSLL or similar devices (F (1) = 43.55, $p < 0.001$). Compared to male students, female students were more likely to be victimised by cyber aggression in Weibo. In massive multiplayer online games and Xbox, PS4, PSV, 3DSLL or similar devices, males reported greater victimisation than females. As reported above, Weibo was not the most commonly reported digital environment for cyber victimisation. It is a similar social networking app to WeChat, which was reported as the most common environment for cyber aggression victimisation. Weibo became popular a few years earlier than WeChat. Similarly, massive multiplayer online games was the second-most commonly reported digital environment for victimisation and Xbox, PS4, PSV, 3DSLL or similar devices closely related to online games as well.

As shown in Figure 4.26, through Weibo, female students (64.9%, n = 133) were more likely to experience cyber victimisation at a moderate level than males (35.1%, n = 72). For serious victimisation, female students (65.3%, n = 47) reported higher rates than males (34.7%, n = 25). These findings contradict the previously reported rates of cyber victimisation, which argued that male students were more likely to be targeted online.

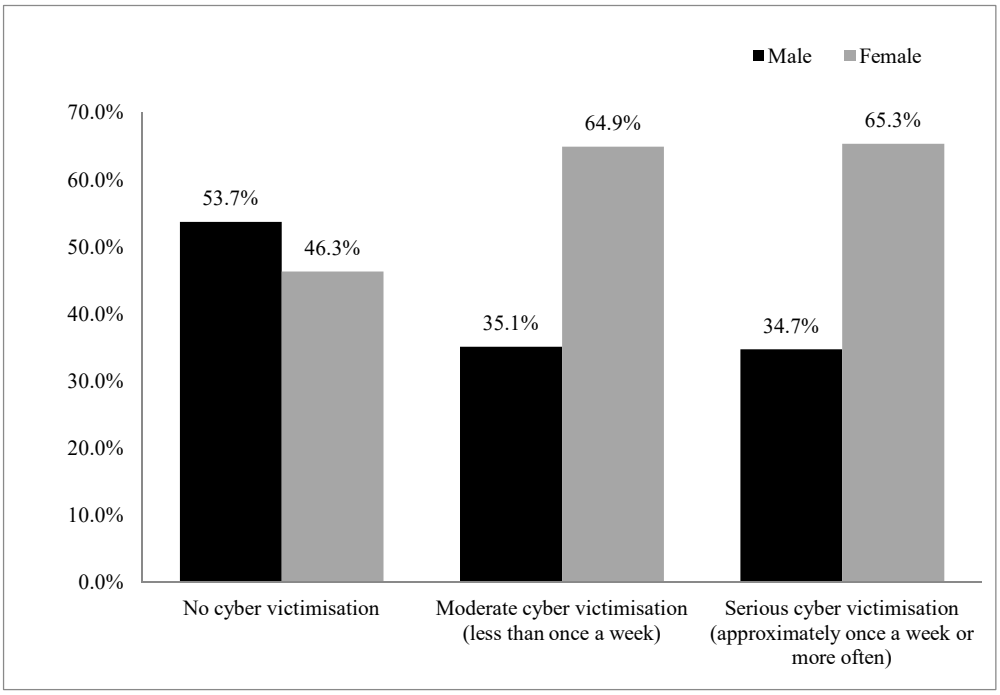

Figure 4.26. Cyber aggression victimisation – Weibo, male and female students.

In contrast to Weibo, in the massive multiplayer online game environment, of the students who reported being victimised less than once a week, the rate of male students (69.9%, n = 179) doubled that of the female participants (30.1%, n = 77). Male participants (78.1%, n = 57) were more likely to experience serious cyber victimisation than females (21.9%, n = 16), with the rate of females less than one-third of the rate of males (see Figure 4.27).

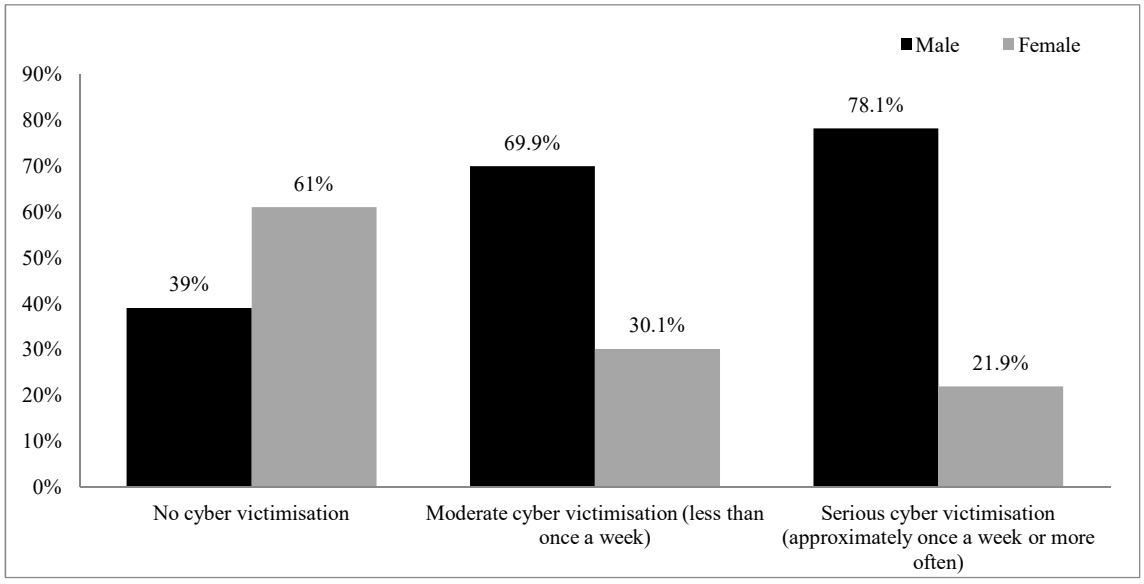

Figure 4.27. Cyber aggression victimisation – massive multiplayer online games, male and female students.

As shown in Figure 4.28, through Xbox, PS4, PSV, 3DSLL or similar gaming devices, male students (69.9%, n = 95) were twice as likely as female students (30.1%, n = 41) to report being cyber victims at a moderate level. At a serious level, the rate of males’ cyber victimisation (73.7%, n = 42) was approximately three times that of females (26.3%, n = 15).

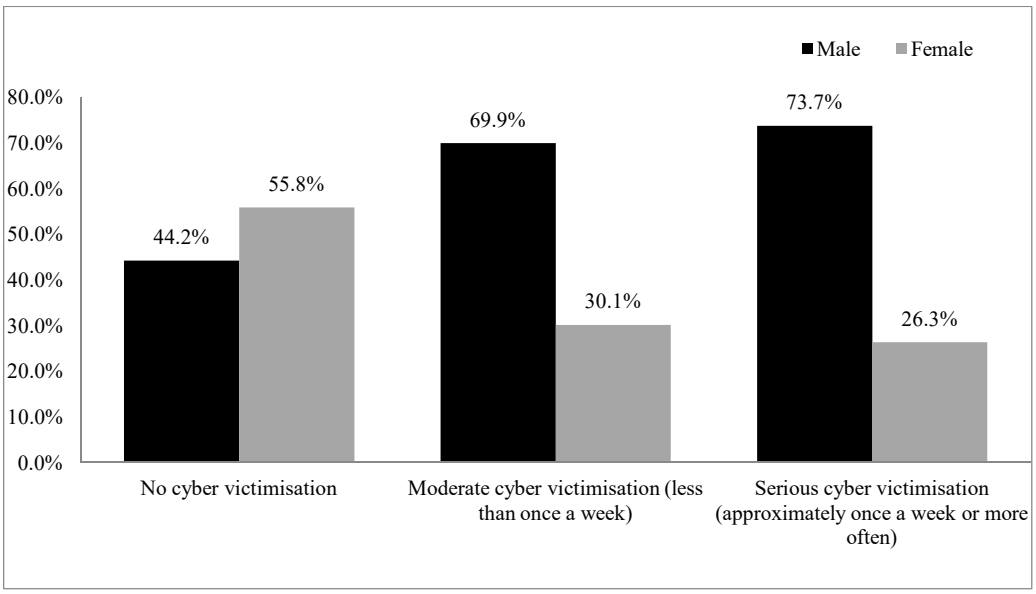

Figure 4.28. Cyber aggression victimisation – Xbox, PS4, PSV, 3DSLL or similar devices, male and female students.

4.4.1.2 ***Digital environments of cyber aggression victimisation – differences between year levels***

The rates of cyber aggression victimisation through emails (F (3) = 19.03, $p < 0.001$), computer instant messages (F (3) = 17.97, $p < 0.001$), cell phone text messages (F (3) = 22.94, $p < 0.001$), cell phones (F (3) = 29.31, $p < 0.001$), PictureMail and VideoMail (F (3) = 23.46, $p < 0.001$), WeChat (F (3) = 14.33, $p < 0.001$), social networking sites (F (3) = 18.34, $p < 0.001$), Weibo (F (3) = 12.88, $p < 0.001$), Youku (F (3) = 13.69, $p < 0.001$), QQ (F (3) = 26.56, $p< 0.001$), massive multiplayer online games (F (3) = 7.83, $p < 0.001$) and Xbox, PS4, PSV, 3DSLL or similar devices (F (3) = 12.33, $p< 0.001$) differed between year levels.

As shown in Figures 4.29 to 4.40, the trend of no victimisation experienced in these digital environments was decreasing in all year levels. However, at the moderate level of cyber aggression victimisation, the trend of most digital environments (except for social networking sites, Weibo and massive multiplayer online games) was increasing. This trend is inconsistent with the previously reported rates of moderate levels of victimisation experiences, which decreased steadily from first year to fourth

year. The general trend of participants’ serious victimisation experiences in these digital environments was increasing in all year levels. This trend is consistent with previously reported results that students in fourth year are more likely to be victimised by cyber aggression at a serious level.

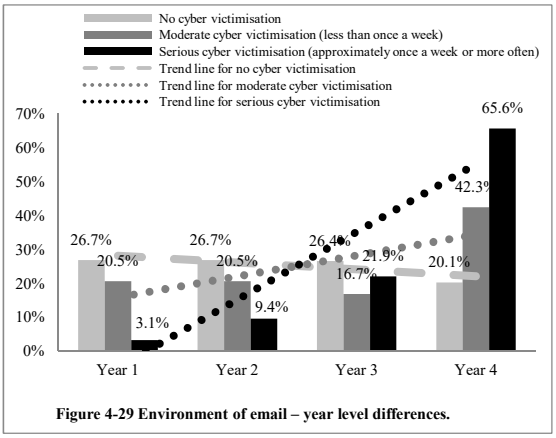

Figure 4-29 Environment of email – year level differences.

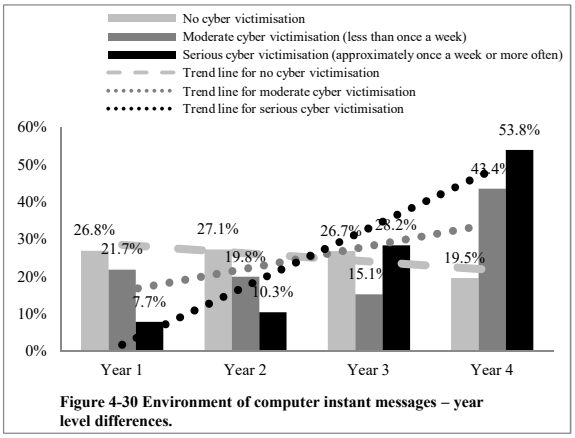

Figure 4-30 Environment of computer instant messages – year level differences.

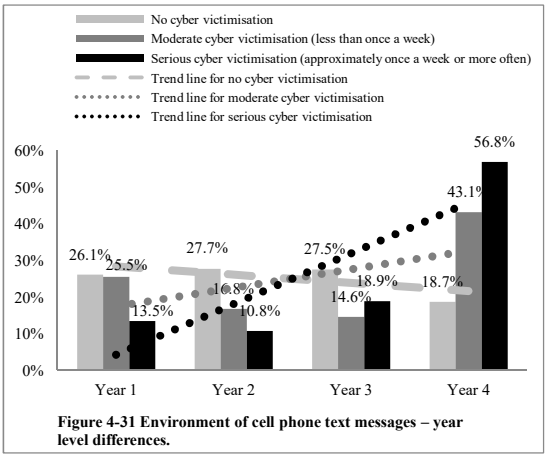

Figure 4-31 Environment of cell phone text messages – year level differences.

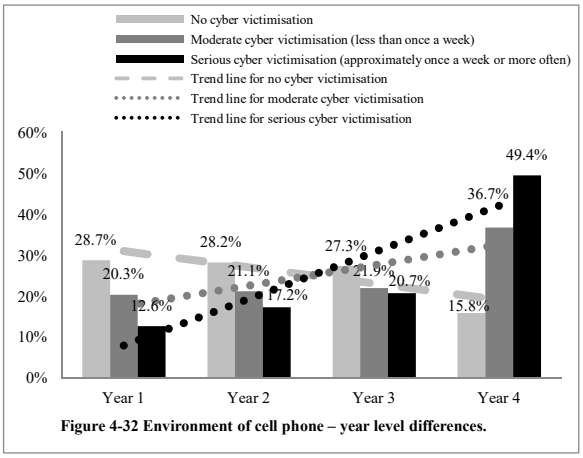

Figure 4-32 Environment of cell phone – year level differences.

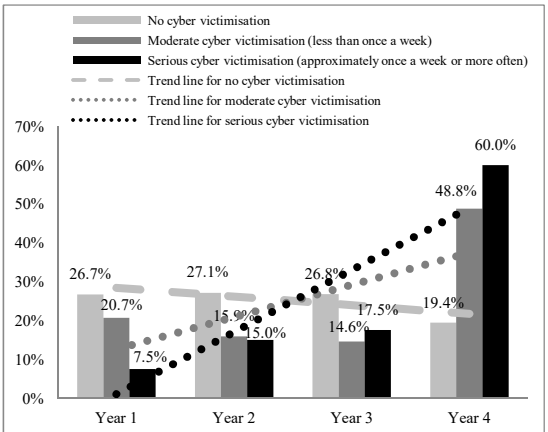

Figure 4-33 Environment of Picture / VideoMail – year level differences.

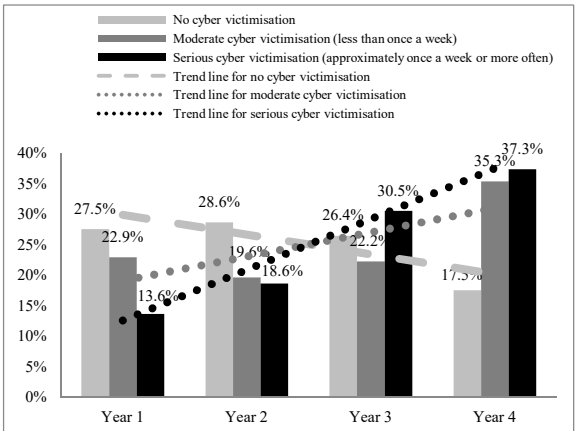

Figure 4-34 Environment of WeChat – year level differences.

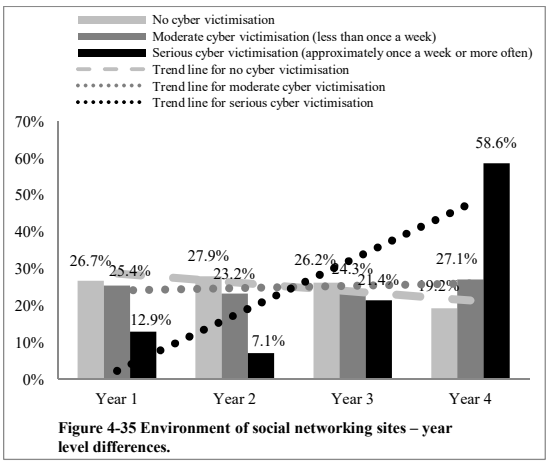

Figure 4-35 Environment of social networking sites – year level differences.

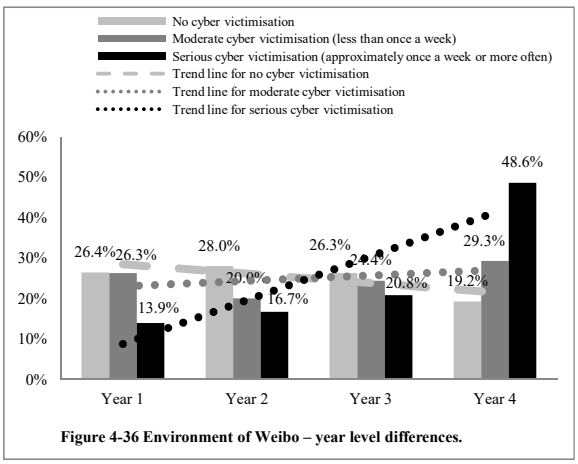

Figure 4-36 Environment of Weibo – year level differences.

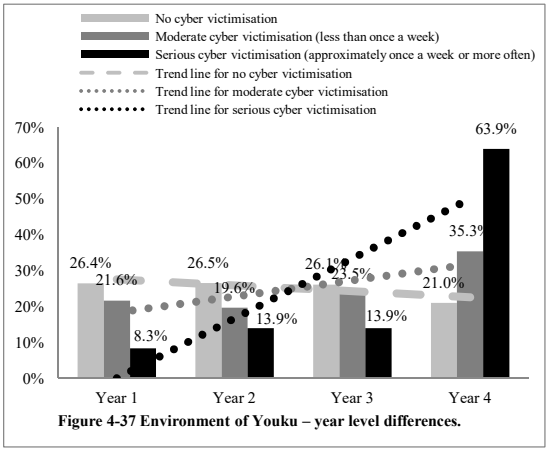

Figure 4-37 Environment of Youku – year level differences.

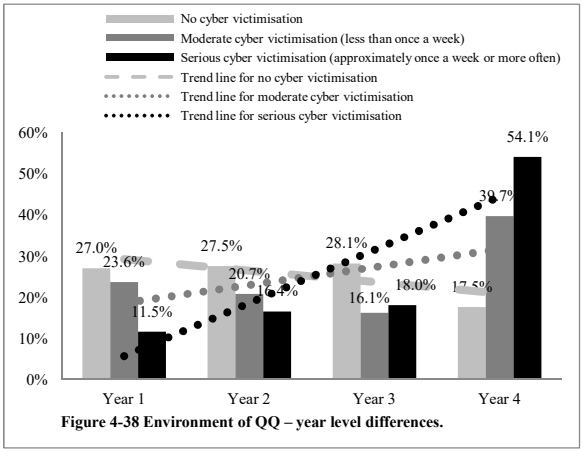

Figure 4-38 Environment of QQ – year level differences.

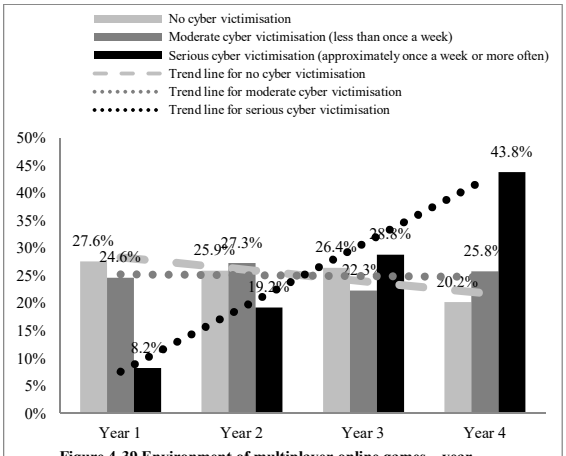

Figure 4-39 Environment of multiplayer online games – year level differences.

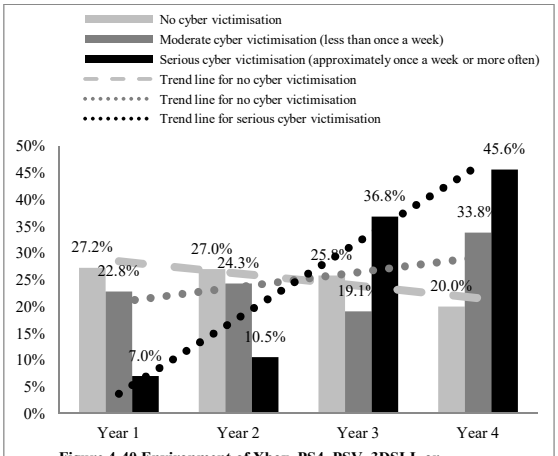

Figure 4-40 Environment of Xbox, PS4, PSV, 3DSLL or similar devices – year level differences.

4.4.2 Digital environments of cyber aggression perpetration

Overall, the level of serious cyber aggression perpetration in all digital environments ranges from 2.4% to 6.8%. As shown in Figure 4.41, the most commonly reported digital environment in which perpetration occurred in the previous 30 days was massive multiplayer online games. In this environment, 20.8% (n = 225) of participants perpetrated cyber aggression less than once a week and 6.4% (n = 69) had serious cyber

aggression perpetration experiences. The second-most commonly reported digital environment of perpetration was WeChat, in which 17.7% (n = 192) of participants perpetrated cyber aggression at a moderate level and 5.6% (n = 61) at a serious level. Youku was the least-reported perpetration environment. In Youku, 4.3% (n = 47) of participants perpetrated cyber aggression less than once a week and 2.4% (n = 26) perpetrated cyber aggression approximately once a week or more. It is interesting to note that massive multiplayer online games and WeChat were also reported as the top two most commonly reported cyber victimisation environments. The rates of serious cyber victimisation in massive multiplayer online games (6.7%, n = 73) and in WeChat (5.4%, n = 59) are comparable to that of serious cyber aggression perpetration. Youku was also the least-reported cyber victimisation environment. The rate of moderate victimisation (4.7%, n = 51) in this environment is comparable to the rate of moderate perpetration.

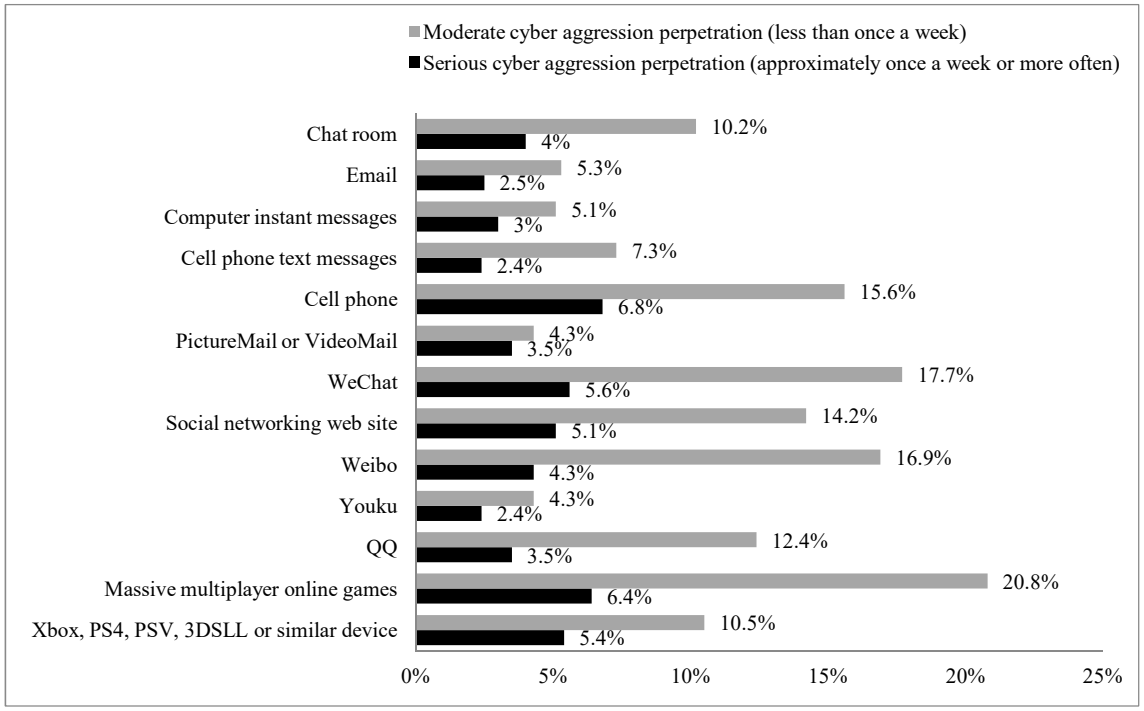

Figure 4.41. Digital environments of cyber aggression perpetration.

4.4.2.1 ***Digital environments of cyber aggression perpetration – differences between genders***

Significant differences in cyber aggression perpetration were found in chatrooms (F (1) = 13.38, $p < 0.001$), cell phone text messages (F (1) = 10.53, $p < 0.01$), Weibo (F (1) = 18.08, $p < 0.001$), massive multiplayer online games (F (1) = 43.99, $p < 0.001$) and Xbox, PS4, PSV, 3DSLL or similar devices (F (1) = 30.82, $p < 0.001$) between genders. Salient gender differences were also discovered in victimisation in these environments. Additionally, massive multiplayer online games was the second-most commonly reported victimisation environment and the most commonly reported environment of perpetration.

As shown in Figure 4.42, in chatrooms, male students (60.4%, n = 67) were more likely to perpetrate cyber aggression than female students (39.6%, n = 44) at a moderate level. Further, male students (67.4%, n = 29) were twice as likely as female students (32.6%, n = 14) to report perpetrating serious cyber aggression in chatrooms.

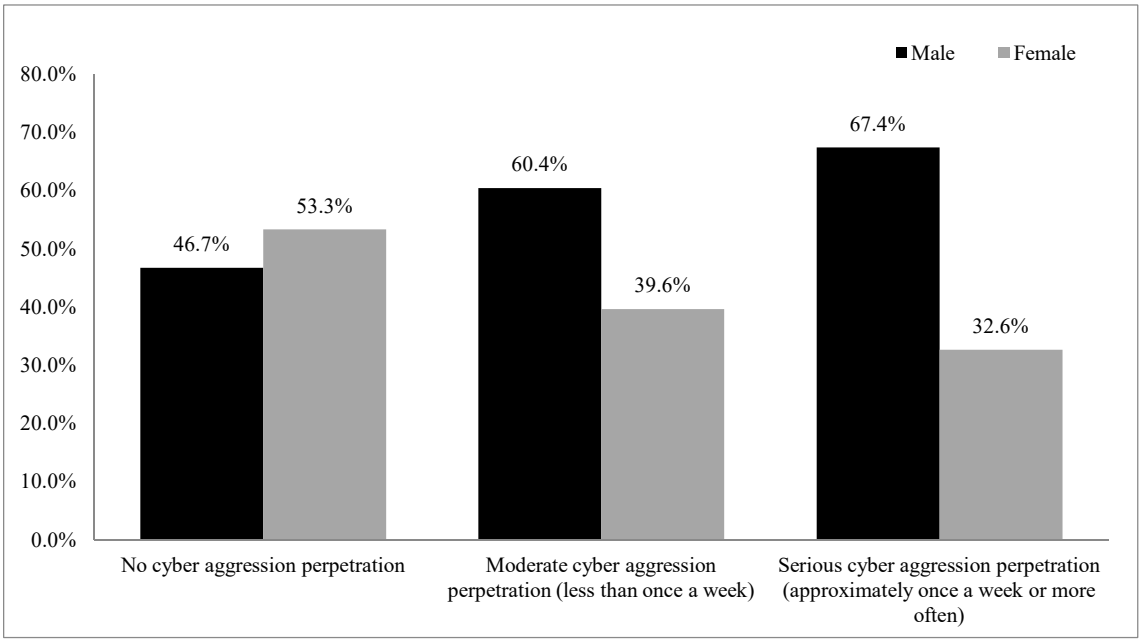

Figure 4.42. Cyber aggression perpetration – chatrooms, male and female students.

Cyber aggression perpetration trends through cell phone text messages and chatrooms were similar. As shown in Figure 4.43, male participants (62%, n = 49) reported higher rates of moderate cyber aggression perpetration than females (38%, n = 30). Male students (69.2%, n = 18) were more likely to target others at serious

levels through cell phone text messages than females (30.8%, n = 8). Serious cyber aggression perpetration rates of males was twice that of females.

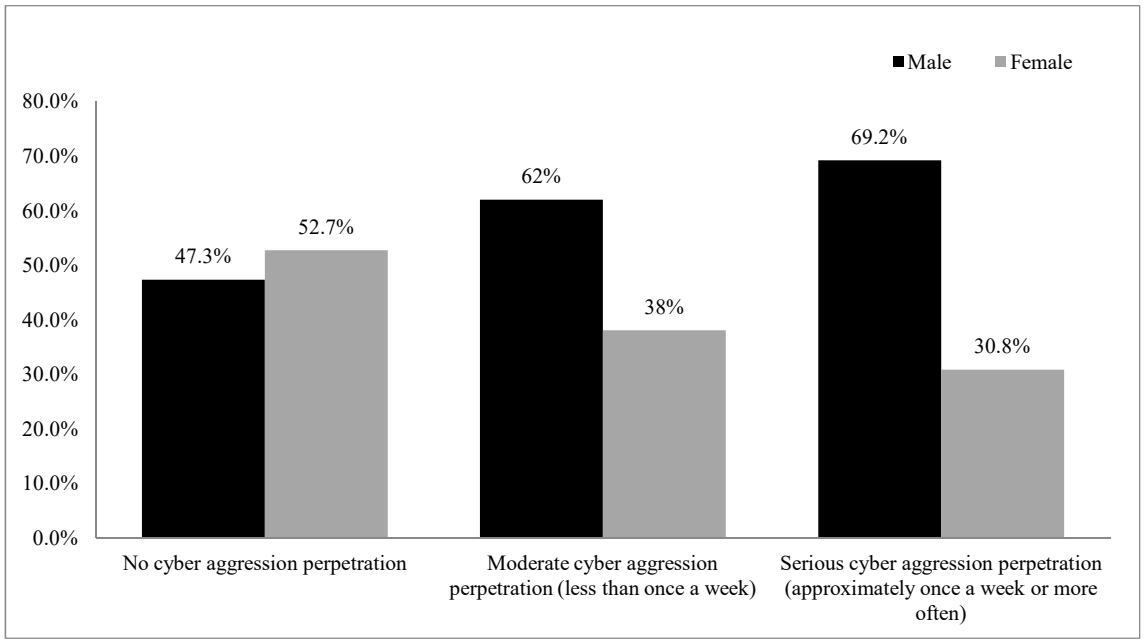

Figure 4.43. Cyber aggression perpetration – cell phone text messages, male and female students.

As shown in Figure 4.44, in Weibo, female students’ (66.7%, n=122) moderate perpetration rate was double that of males (33.3%, n = 61). For serious cyber aggression perpetration, female students (59.6%, n = 28) reported higher rates than males (40.4%, n = 19). These trends are consistent with previously reported results that female students are more likely to be victimised by cyber aggression in Weibo.

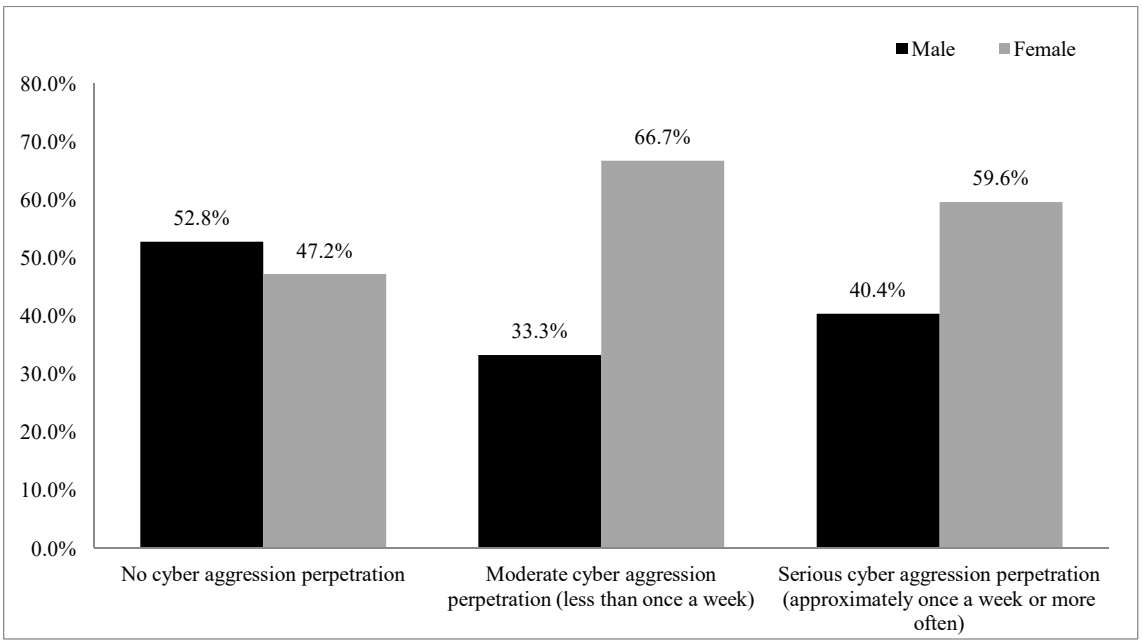

Figure 4.44. Cyber aggression perpetration – Weibo, male and female students.

In contrast to Weibo, as shown in Figure 4.45, in the massive multiplayer online game environment, male students’ rates (68%, n = 153) of moderate perpetration is more than double that of female participants (32%, n = 72). Male students (63.8%, n = 44) are more likely to have serious perpetration than females (36.2%, n = 25). These trends are consistent with previously reported findings that male students are more likely to be victimised in massive multiplayer online games.

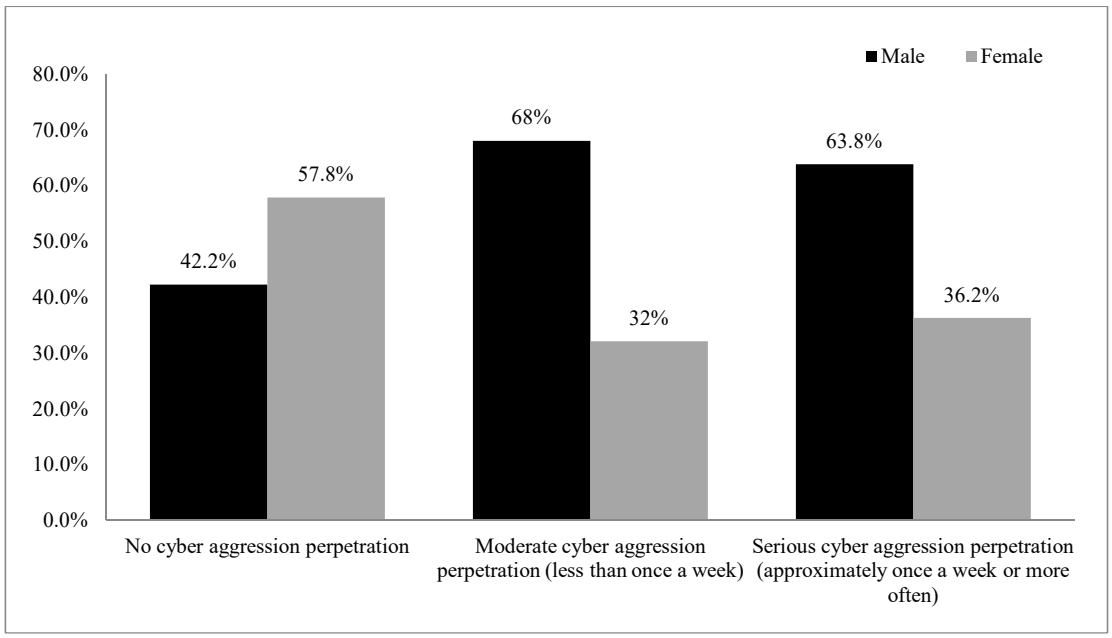

Figure 4.45. Cyber aggression perpetration – massive multiplayer online games, male and female students.

As shown in Figure 4.46, the situation in Xbox, PS4, PSV, 3DSLL or similar devices is similar to that of massive multiplayer online games. Male students are more likely to perpetrate moderate levels of cyber aggression than females. The rates of male students (67.5%, n = 77) are more than twice that of female students (32.5%, n=37). Male students (71.2%, n = 42) reported more serious perpetration in Xbox, PS4, PSV, 3DSLL or similar devices than female students (28.8%, n = 17). Again, these trends are consistent with previously reported results that male students are more likely to be victimised through Xbox, PS4, PSV, 3DSLL or similar devices.

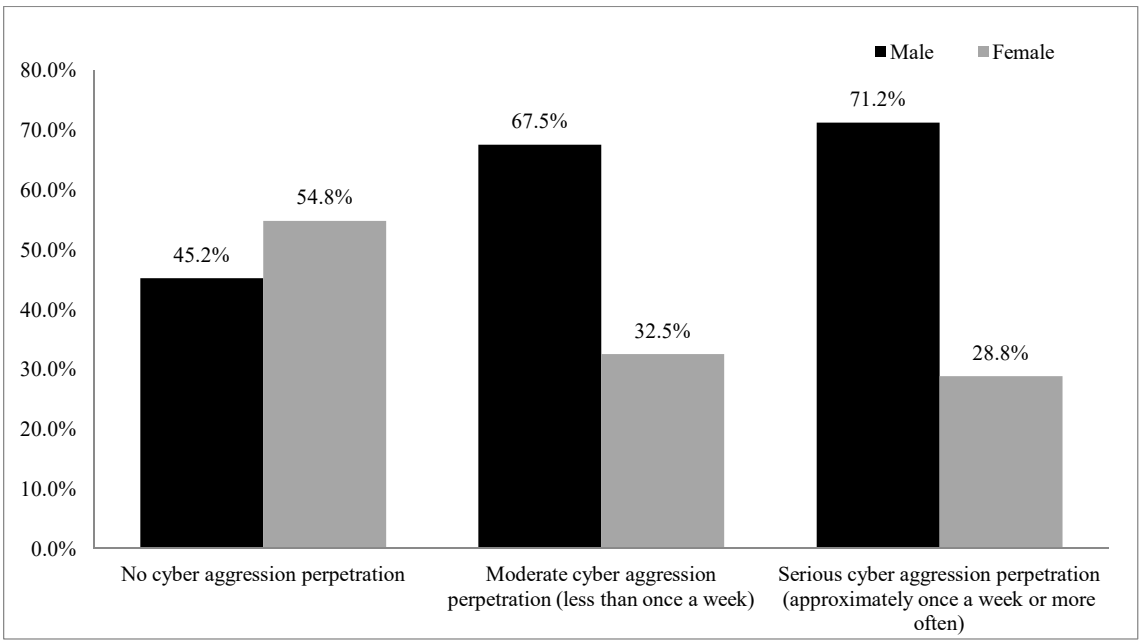

Figure 4.46. Cyber aggression perpetration – Xbox, PS4, PSV, 3DSLL or similar devices, male and female students.

4.4.2.2 ***Digital environments of cyber aggression perpetration – differences between year levels***

Rates of cyber aggression perpetration through chatrooms ($F(3) = 4.13$, $p < 0.01$), emails ($F(3) = 5.69$, $p < 0.001$), computer instant messages ($F(3) = 5.49$, $p < 0.01$), PictureMail or VideoMail ($F(3) = 12.66$, $p < 0.001$), social networking sites ($F(3) = 6.45$, $p < 0.001$), Youku ($F(3) = 6.78$, $p < 0.001$), QQ ($F(3) = 5.52$, $p < 0.01$) and Xbox, PS4, PSV, 3DSLL or similar devices ($F(3) = 8.67$, $p< 0.001$) varied according to year level.

As shown in Figures 4.47 to 4.54, the general trend of no cyber aggression perpetration in the above eight digital environments was decreasing through all four year levels. At the moderate level of cyber aggression perpetration, the general trend of most digital environments (except for chatrooms, social networking sites and Xbox, PS4, PSV, 3DSLL or similar devices) was increasing. The trend of serious cyber aggression perpetration in all eight digital environments increased from first year to fourth year. This is consistent with previously reported results that students in their final year of

studies are more likely to perpetrate cyber aggression than participants in the other year levels.

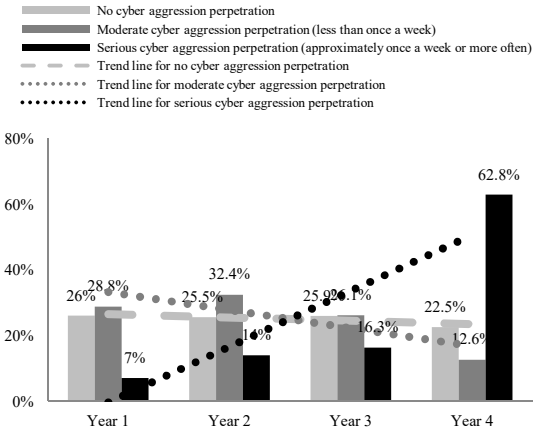

Figure 4-47 Environment of chat room – year level differences.

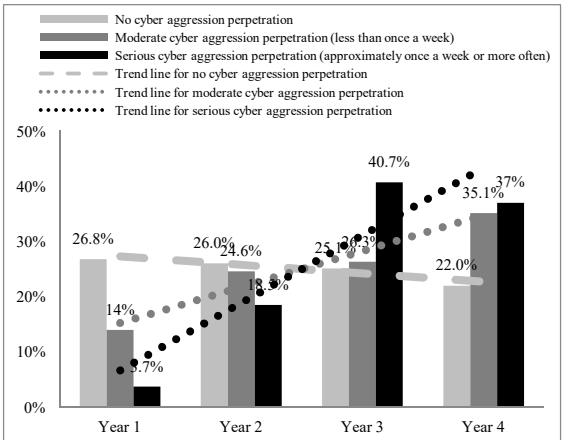

Figure 4-48 Environment of email – year level differences.

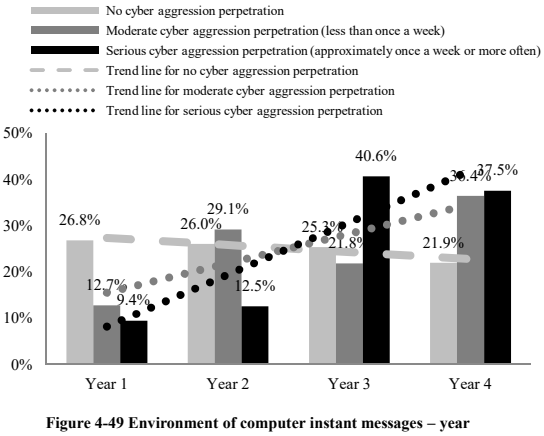

Figure 4-49 Environment of computer instant messages – year level differences.

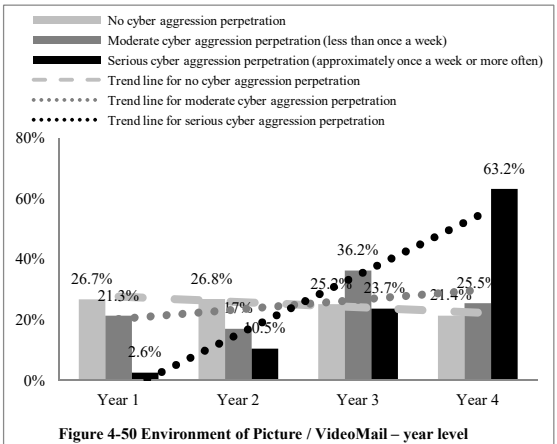

Figure 4-50 Environment of Picture / VideoMail – year level differences.

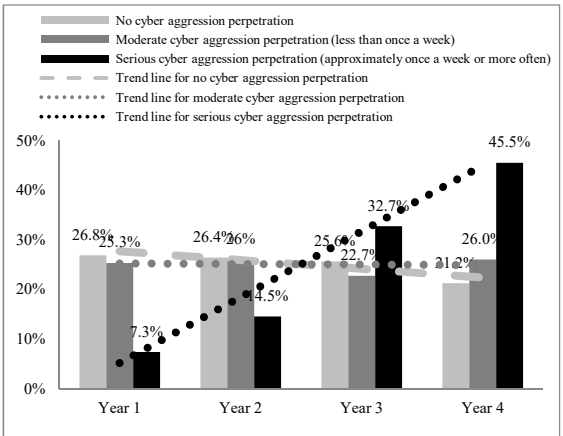

Figure 4-51 Environment of social networking sites – year level differences.

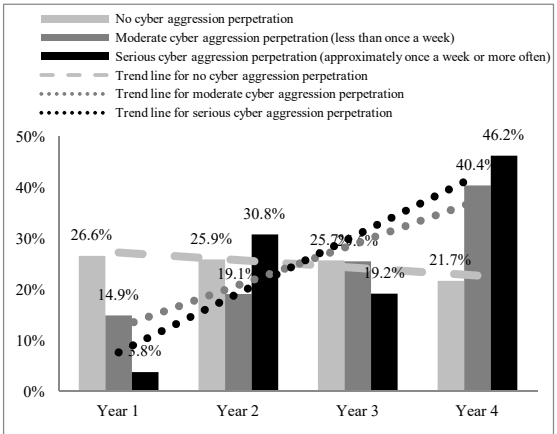

Figure 4-52 Environment of Youku – year level differences.

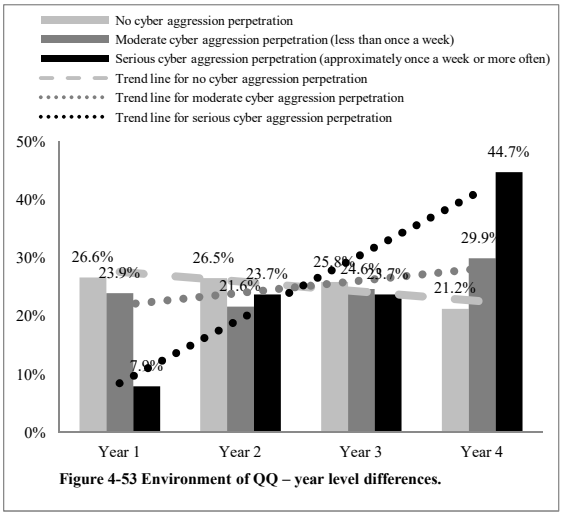

Figure 4-53 Environment of QQ – year level differences.

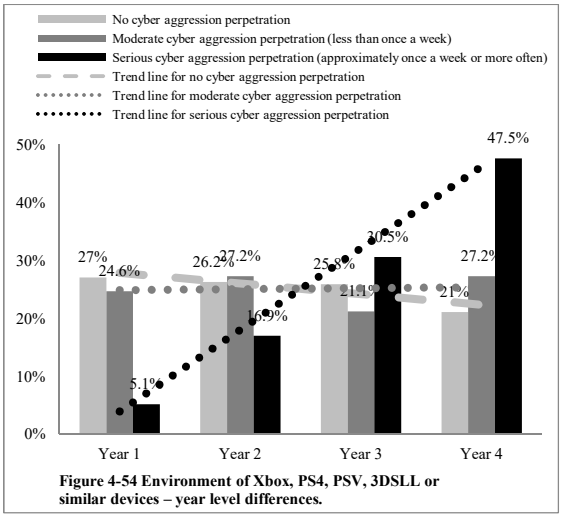

Figure 4-54 Environment of Xbox, PS4, PSV, 3DSLL or similar devices – year level differences.

4.5 Summary

In the previous 30 days before the interviews, approximately three-quarters of participants had been victimised by cyber aggression and approximately two-thirds had perpetrated cyber aggression at moderate or high levels. Compared to female students, male students were more likely to report being victimised by, and perpetrating, cyber aggression. Year level differences suggest that students in the final year of their undergraduate studies were more likely to target others and experience cyber aggression online. Further, there was overlap between the roles of cyber victim and aggressor. More than one-third of participants reported themselves as a victim–aggressor who was involved in cyber aggression less than once a week. More than 10% of participants reported experiencing both victimisation and perpetration at serious levels.

Among the eight types of cyber aggressive behaviours, making mean or hurtful comments and spreading rumours were the most common types of victimisation and perpetration that were reported by male and female students. Salient gender differences were discovered in threatening to hurt someone online and pretending to be the victim online and acting in a mean or hurtful way. In these types, male students were more likely to be victimised by, and perpetrate, cyber aggression than female students. These two types were among the less reported behaviours. Year level differences were discovered in eight types of victimisation and four types of perpetration. The differences

are consistent with previous findings that fourth year students are more likely to be involved in cyber aggression.

WeChat and massive multiplayer online games were found to be the most common environments of victimisation and perpetration. Weibo was the only digital environment in which female students were more likely to be victimised by, and perpetrate, cyber aggression than males. In all other environments, males were found to have higher levels of involvement than females. Year level differences were found in 12 digital environments of cyber victimisation and eight environments of perpetration examined in this study. These differences are consistent with previous findings that fourth year students are more likely to be involved in cyber aggression.

Chapter 5 reports the findings from the semi-structured interviews in Study 2. In Chapter 6, the discussion combines the two types of data to develop a discussion about the research problem.

Chapter 5: Results from Study 2

The results of Study 2 were divided into five sections (see Figure 5.1) that correspond to the qualitative research questions about cyber aggression involvement among Chinese university students. The questions investigate:

- specific behaviours in experiences of cyber aggression
- explanations for online aggressive behaviours
- effects of cyber aggression
- responses to cyber aggression
- influence of parents on student responses.

The transcripts from the pilot interviews were imported into the NVivo11 computer software program. Each line of text was examined and categories and subcategories were coded into nodes (i.e., a container for references of themes, topics, issues or opinions). First, the pilot interview transcripts were introduced into NVivo11 and the general framework of the coding system was established from those transcripts. Next, the transcripts of 24 individual interviews were imported into NVivo11 and were coded. New categories and subcategories were defined and added when new material emerged from the transcripts. In the process of coding, many labels at different levels of abstraction were developed. The information was integrated into meaningful and coherent depictions of the data. Data displays include organising, compressing and assembling data information. This helped the researcher understand what stage the analysis had reached and set the basis for further data analysis (see Chapter 3). Figure 5.1 summarises the categories and subcategories of the data analysis. Each point will be elaborated below.

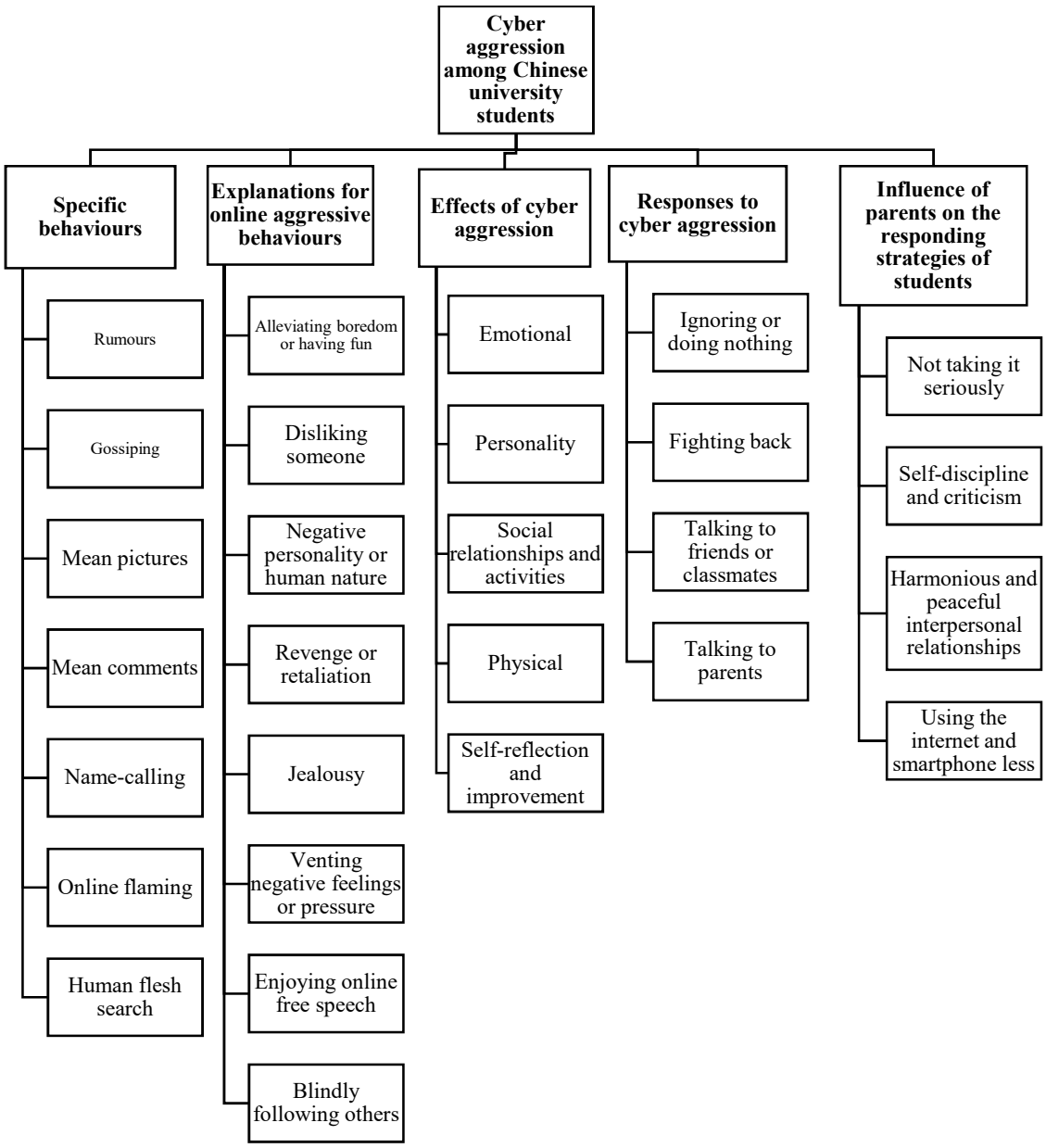

Figure 5.1. Categories and subcategories developed from the transcripts.

5.1 Explanation of Symbols

In the results below, each participant was given a pseudonym and their gender and year level were reported (e.g., Wang Gang [year 1, female], Li Ming [year 2, male]). All data—three pilot interviews and 24 main study interviews—were considered together. Comments were made when it appeared that the year levels and genders differed in relation to particular subcategories.

5.2 Cyber Aggression Behaviours

5.2.1 Introduction

Consistent with Study 1, cyber aggression was defined as intentional behaviour aimed at harming another person or persons through computers, cell phones and other electronic devices and is perceived as aversive by the victim (Schoffstall & Cohen, 2011, p. 588). A picture about cyber aggression drawn by a participant in Study 1 (see question 16 in the Cyber Aggression Survey shown in Appendix A) was shown to the interview respondent. The respondent was asked whether the drawing can help them think of any experiences they have had of cyber aggression. There was agreement, among all respondents, that this type of aggressive behaviour in cyberspace is prevalent and occurs frequently in their university. For example, Zhang Xi (year 1, female) described her roommate’s experience of cyber aggression and indicated that this behaviour occurred often by saying ‘of course, this is quite common’. Wang Yi (year 2, male) held the same opinion by reporting that ‘this kind of thing happens every day’. Li Xiao (year 3, female) argued that ‘there is no space and time limits on it. It can happen anytime and anywhere to us’. However, it is noteworthy that Deng Xin (year 1, female) believed that, in her class, ‘there was not much cyber aggression’. When asked for reasons, she explained by saying that ‘the school and our teachers organised many collective activities for us to help us build our class into a solid and harmonious class’. She also indicated that ‘these activities helped them to develop friendly and positive relationships’. Deng Xin’s (year 1, female) opinion is further discussed in Chapter 6, as it may shed a light on a future intervention study of cyber aggression.

As shown in Table 5.1, students’ experiences of cyber aggression are separated into seven categories for the purpose of explaining what each experience involves and how the respondents understand it. These categories overlapped among both male and

female students. The students reported that these categories occurred often and were harmful for both the aggressor and the victim.

Table 5.1

Categories of Specific Behaviours

Experiences of Chinese university students	Rumours
	Gossiping
	Mean pictures
	Mean comments
	Name-calling
	Online flaming
	Human flesh search

The transcript material in each category has been explained following the subheadings of Definition and Students’ Perceptions. The definition of each type of cyber aggression was used to code the transcript text into different nodes in the NVivo 11 computer program, which are collections of references from different interview transcripts and were used to support the researcher’s elaboration on each category. The students’ perceptions of aggressive behaviours in cyber environments are based on the interview transcripts. It includes the range of behaviours, the cyber environments in which they occurred and students’ opinions about them.

5.2.2 Rumours

5.2.2.1 ***Definition***

Rumours are defined as spreading nasty information about others online that is designed to be hurtful.

5.2.2.2 ***Report of participants***

This type of online behaviour denigrates the victim by dishonouring and discrediting them. It is telling nasty information to hurt others. Bao Ming (year 2, male)

said that some students spread rumours about his friend, saying that ‘he got into the school through the back door’. Another example was from Deng Xin (year 1, female). She described how some students spread rumours about a girl by saying that ‘her beauty was fake because she had had some cosmetic surgery’.

Nine out of the 27 participants mentioned rumours in their experiences of cyber aggression. It was indicated that rumours often overlap with the categories of mean comments, mean pictures and gossiping. For example, Xue Yun (year 3, male) reported that ‘many students’ attacked a male student who wore makeup and spoke softly. They spread a rumour that ‘the boy was a gay’, ‘gossiped about him’ and created ‘some mean pictures about him’. Ren Xue (year 3, female) reported her experiences by saying that ‘soon, some people targeted me. Some said I was tasteless and shallow. Some spread rumours that my boyfriend was angry and fought with me because I liked this star’. When students dislike or have conflicts with someone, they tend to spread rumours about them. Li Ming (year 2, male) said that ‘when they disliked someone in real life, they would not let the person know. Instead, they gossiped or spread rumours about the person in some social networks’. In this covert way, the aggressor used rumours as a tool to harm to the victim.

5.2.3 Gossiping

5.2.3.1 ***Definition***

Gossiping is defined as idle talks in online environments about others’ personal affairs, ways of life or behaviours, always in hurtful ways.

5.2.3.2 ***Report of participants***

According to Gu Ling (year 2, female), students ‘gossiped about everything, including other people’s appearance, belongings and even someone’s boyfriend or girlfriend’. They used gossiping to hurt others in groups so that they could feel like that they had more power over their victims. Some students ‘had their own chat groups to

gossip about other people’ (Ou Yang, year 3, female). Students enjoyed gossiping when they discovered something that made someone look bad. For example, Bao Ming (year 2, male) reported that some students kept their distance from a girl ‘but always kept an eye on that girl and tried to catch her embarrassing moments’ and then ‘gossiped about the girl and her embarrassment’ online.

Some participants indicated that girls are more likely to gossip about others in online environments. Ai Li (year 3, female) said that ‘you know we girls like gossiping about someone. We do not only do it offline, but also online’. Similarly, Kong Yu (year 3, male) reported that ‘girls like gossiping online just like what they do offline’.

However, some participants indicated that both boys and girls may gossip about others online. For example, Gu Ling (year 2, female) mentioned that ‘you know girls like gossiping. And actually, boys did it too’. Hao Ling (year 3, female) has ‘also seen both boys and girls gossiping about someone in some chat groups of WeChat, Weibo or the like’.

Most of the participants who mentioned gossiping indicated that disliking someone or negative feelings, such as jealousy, anger and boredom, often motivates undergraduate students to gossip about that person. They gossip about others ‘to relieve their discontent and anger’ (Peng Wei, year 1, male).

5.2.4 Mean pictures

5.2.4.1 *Definition*

Mean pictures are defined as unpleasant pictures that have been taken or created by someone to express spite or malice and are then spread online.

5.2.4.2 *Report of participants*

Mean pictures are widely used by students to target others online. Most participants mentioned it when reporting their experiences of cyber aggression. Mean pictures are used to humiliate others by denigrating and laughing at a person’s physical

appearance. For example, Zhang Xi (year 1, female) was hurt by a picture of her ‘embarrassing moment’, which was taken and posted online by one of her classmates during their physical education class. Mean comments following the picture make it more hurtful to the victim. Fang Ming (year 3, male) reported that some students ‘could always catch some embarrassing moments of other people and posted the pictures onto some forums, chatrooms, post bars or the like. Then a lot of teasing words and mean comments would follow’.

According to reports by participants, there are two types of mean pictures used by students. One is a ‘meme’—a humorous picture created based on someone’s image. A meme of someone can be copied and spread online. Many students use memes to humiliate others by making fun of the victim’s physical flaws or appearance. For example, Wang Yi (year 2, male) reported that ‘if you are not good-looking, some people may create ugly memes of you’. The second type of mean picture is one in which a normal picture of the victim is edited by adding mean comments to it. For example, Chen Ying (year 4, female) told the story of her friend: ‘soon after the activity, a photo of her was widely spread on the Post Bar of their department, entitled: “Huge Elephant Giving a Speech”’. It was indicated by participants that some students use mean pictures to ‘created hurtful pictures of someone that they did not like’ (Peng Wei, year 1, male). Another example was from Bao Ming (year 2, male) who reported that ‘they used real movie posters to create mocking send-ups to target someone that they did not like’.

Both boys and girls create and post mean pictures online. For example, Hao Ling (year 3, female) has ‘seen both boys and girls posting ugly pictures of someone on QQ space to tease and humiliate that person’. Ni Gang (year 1, male) ‘noticed that both male and female students posted ugly pictures of some schoolmates or pictures of some students’ embarrassing moments onto chat groups’.

The category of mean pictures overlaps with other types of cyber aggression; name-calling, flaming and mean comments. Bao Ming (year 2, male) reported that some schoolmates in the online game environment targeted a boy who did not play well in the game by ‘calling him names and creating some ugly and embarrassing pictures about the boy’. Ni Gang (year 1, male) mentioned that ‘in some newsgroups and forums, some students developed flaming over some controversial issues of the school or society. They used insulting and offensive words and posted mean pictures’.

5.2.5 Mean comments

5.2.5.1 *Definition*

Mean comments are defined as unpleasant remarks and statements about a person’s posts in social networking sites or similar environments. Mean comments express spite or malice and are often directed towards the victim and can be read and spread by bystanders.

5.2.5.2 *Report of participants*

Similar to mean pictures, mean comments is another common category of cyber aggression behaviour among university students, with almost all participants mentioning it in individual interviews. Both Ai Li (year 3, female) and Gu Ling (year 2, female) reported that ‘it happens every day’. Kong Yu (year 3, male) argued that mean comments could be so hurtful to the victim that it could ‘destroy her reputation’. One important reason why the victim could be so hurt by mean comments is that the perpetrator, by using unpleasant remarks, tries to make others think the victim ‘was stupid and ignorant’ (Bao Ming, year 2, male; Ou Yang, year 3,female).

Mean comments and other categories (e.g., mean pictures, gossiping and rumours) often co-occur. For example, Fang Ming (year 3, male) reported his experience, saying that ‘soon, many more comments targeted on me. Some people called me traitor, some posted insulting pictures to humiliate me’. Gu Ling (year 2,

female) mentioned that once she posted some of her paintings on Weibo, then ‘someone made a comment that it looked ugly and also added a disdainful emoji’.

Mean comments often occur in online gaming environments. Fang Ming (year 3, male) described ‘for example, there is a very popular online game, Strike of Kings, among us. When a player in a group did not perform well, he/she would receive a lot of mean comments’. Similarly, Jin Pei (year 4, female) mentioned that in the online gaming environments ‘if a player did not perform well, the other members of the group might make mean comments on the player’.

In the perpetration of mean comments, bystanders can have two kinds of responses. In one case, after one perpetrator posts a mean comment about someone, bystanders become follow-on aggressors by posting more mean comments. For example, Chen Ying (year 4, female) reported ‘however, the next day, a new post was spread, saying: “The elephant lost its temper!” And there were hundreds of mean and hurtful comments targeting the girl’. In another case, if a bystander attempts to defend the victim, they could also be targeted. For example, Bao Ming (year 2, male) mentioned that when he attempted to stand up for his classmate who was subjected to online attacks by other boys ‘they [the aggressors] began to target him’ and made mean comments that Bao Ming ‘never said dirty words in the game and tried to defend his classmate, therefore he was a gay’.

Some participants mentioned a type of student who tends to be quiet in offline life. However, these ‘quiet students’ can perpetrate cyber aggression by posting mean comments. For example, Fang Ming (year 3, male) reported that ‘a roommate of mine posted some pictures of her tour in Vietnam during the vacation. Then a “quiet” student posted a comment that only poor people went to such places to spend vacation’.

5.2.6 Name-calling

5.2.6.1 *Definition*

Name-calling is defined as insulting language or nicknames directed at a person or group in an online environment.

5.2.6.2 *Report of participants*

Nearly one-third of participants mentioned name-calling when reporting their experiences of cyber aggression. Ni Gang (year 1, male), Shen Ke (year 2, female) and Ye Zi (year 2, female) all said that ‘name-calling is very common online’. Bao Ming (year 2, male) reported witnessing a boy being called names in a multiplayer online game environment; ‘a boy made a mistake in his strategy and his mistake resulted in the failure of our team. Then some people in our team were very angry and called him names’. Bao Ming (year 2, male) also indicated that both male and female students perpetrate name-calling online. He said that ‘I heard that girls did the similar things to the people that they do not like. They did name-calling and threw nasty words like boys, or maybe even worse’.

When asked to specify online aggressive behaviours among university students, Ai Li (year 3, female) reported that name-calling is one of many cyber aggression behaviours. She said that ‘some called other people names, some created and posted ugly pictures of someone, some made nasty comments on other people and some set up chat groups to gossip about someone’. She also indicated that these hurtful behaviours ‘can happen anytime’. Li Ming (year 2, male) also said that university students may experience ‘a lot of nasty things online, such as calling other people names, posting hurtful pictures of someone, making mean comments of other people or pretending to be someone else to play pranks on someone’. Both Li Ming (year 2, male) and Zhang Heng (year 4, male) believed the perpetrators ‘would feel very excited’ when they were doing ‘nasty things online’ and when ‘the victim was irritated by’ the cyber aggression.

When a bystander attempts to defend a victim, they could also be targeted and called mean nicknames. For example, Chen Ying (year 4, female) reported that when her friend attempted to help someone who was being victimised, her friend ‘became the object of the attack. The aggressors called her friend by a very nasty nickname’.

5.2.7 Online flaming

5.2.7.1 *Definition*

Online flaming is defined as a hostile and insulting interaction between people in an online environments. It often occurs in forums, chatrooms, social networks and online games.

5.2.7.2 *Report of participants*

Online flaming is a common cyber aggression behaviour in which both sides act as aggressor and victim, as they behave aggressively to each other—either side attacks the other and is attacked in turn. Both male and female students perpetrate online attacks by developing flaming with others. For example, Gu Ling (year 2, female) reported that both boys and girls in her class who played an online game ‘often had flaming in the game or in some chatrooms over the game’. Shen Ke (year 2, female) held the same opinion by saying that ‘I could always see some boys and girls attacking other people in some newsgroups or chatrooms’.

In flaming, the perpetrator uses other categories of cyber aggression such as mean comments and pictures. Meng Xi (year 2, male) confirmed this by saying that ‘sometimes we had flaming with other students, using mean comments and pictures’. Similarly, Ou Yang (year 3, female) reported that when some students developed flaming with others ‘they irritated and provoked other people with nasty words, mean pictures and mean comments’. Peng Wei (year 1, male) had observed flaming in a chatroom and reported that those students ‘made mean comments’ and ‘created ugly pictures’. Students would feel excited by flaming, especially when they saw that others

were emotionally provoked and unable to respond. For example, Li Ming (year 2, male) reported that ‘when they found that someone was irritated by their mean comments or developed flaming with them, they would feel very excited’.

Nearly all participants who reported flaming have mentioned a type of perpetrator called an ‘internet troll’. Some participants provided detailed explanations. Fang Ming (year 3, male) explained what an internet troll is, saying:

> They try to find one or some targets over some controversial issues and then get other people involved into the argument or flaming. Or sometimes they even create some inflammatory issues to ‘hook’ their targets. They use nasty words and pictures to target others or even threaten to hurt other people.

Ye Zi (year 2, female) said that internet trolls were often active in ‘some popular chatrooms, post bars, newsgroups and the like’ and they ‘stir up excitement by attacking other people’.

5.2.8 Human flesh search

5.2.8.1 ***Definition***

Human flesh search (HFS) is a Chinese term for the phenomenon of extensive searches using internet media such as Weibo, forums and other social networking platforms. Its purpose is to identify and expose private or identifiable information about an individual so that the victim is publicly humiliated (Chen & Sharma, 2011; Zhu & Hu, 2017). This information, once available, can be rapidly distributed to many websites, making it an extremely hurtful attack on the victim.

5.2.8.2 ***Report of participants***

Nearly one-third of the participants reported that students attacked others by perpetrating HFS and exposing the victim’s personal information to the public. For example, Li Ming (year 2, male) said that some students ‘conducted HFS on the victim and disclosed some of their personal information’. When Ni Gang (year 1, male) talked

about students 'conducting HFS on someone and disclosing the victim's personal information', he said that 'it sounds really terrible'. Peng Wei (year 1, male) reported a female university student's story of being victimised by an HFS. She said that 'someone conducted human flesh search on her and in a short time her home address, her family pictures and her real name were exposed to the public'. These aggressive behaviours are extremely hurtful to the victim. Ou Yang (year 3, female) reported that her cousin was so hurt by an HFS that he felt 'scared that those people would find out more personal information of him'. Zhang Xi (year 1, female) said that a female student 'felt embarrassed that her privacy was exposed in front of others' when someone used an HFS against her. HFS can also hurt the people around the victim. For example, Shen Ke (year 2, female) reported that after some students perpetrated HFS on a female student, 'not only the girl herself but also her parents were attacked by more people'.

5.2.9 Summary of cyber aggression behaviours

The seven categories of cyber aggression behaviours (i.e., rumours, gossiping, mean pictures, mean comments, name-calling, online flaming and HFS) experienced by undergraduate students at this Beijing comprehensive municipal university have been described. Students stated that cyber aggression is harmful to both the aggressor and the victim. However, many of them still choose to perpetrate cyber aggression in response to others' online behaviours. In the following section, students explain their cyber aggression behaviours.

5.3 Explanations for Online Aggressive Behaviours

5.3.1 Introduction

This section reports undergraduate students' explanations for cyber aggression behaviours. Participants were asked why the aggressor in the picture behaved that way towards the victim and why their schoolmates or friends behaved aggressively towards

others online. As shown in Table 5.2, the explanations of the participants are grouped into eight categories.

Table 5.2

Categories of Students’ Explanations for Cyber Aggression Behaviours

Explanations for online aggressive behaviours by Chinese university students	Alleviating boredom or having fun
	Disliking someone
	Negative personality or human nature
	Revenge or retaliation
	Jealousy
	Venting negative feelings or pressure
	Exercising online free speech
	Blindly following others

5.3.2 Alleviating boredom or having fun

Nearly all participants discussed alleviating boredom or having fun to explain cyber aggression behaviours. For example, Wang Yi (year 2, male) stated that some students ‘tease others online for fun’. Bao Ming (year 2, male) provided a further explanation by saying that ‘when they felt bored, they called other people names, posted ugly pictures of someone, had flaming with others or pretended to be someone else and play pranks on other people on social networks’. In addition, Fang Ming (year 3, male) repeated the words ‘for fun’ and ‘have excitement’ in his explanations. He said:

> Or, maybe the aggressor feels very empty and bored in his life. He wants something for excitement. Then he chose to hurt other people just for fun. They felt life was boring. Then they tried to seek fun and excitement by hurting others.

5.3.3 Disliking someone

According to explanations from participants, it is common that the aggressor will dislike the victim but does not want the victim or other people to know this directly.

Instead, the aggressor will express their dislike by attacking the victim online—an environment in which the aggressor’s true identity can be hidden. For example, Wang Yi (year 2, male) explained that ‘some may dislike certain people, but they cannot express their feelings face-to-face. They pretend to be friendly offline but attack the people they do not like in cyber environments, using the internet as a mask’. Hao Ling (year 3, female) provided a similar explanation, saying that ‘some gossiped about others, posted mean pictures and comments or spread rumours about the person that they did not like on WeChat, Weibo, QQ and the like’.

5.3.4 Negative personality or human nature

One-third of participants interpreted the negativity and hostility of aggressors as an important reason for their online behaviour. For example, Zhang Xi (year 1, female) described the aggressor as a ‘mean person’ by saying that ‘they have mean personality and they just hold hostility to everyone. Then they attack others all the time’. Bao Ming (year 2, male) held the same opinion, saying that ‘some people did this [cyber aggression behaviour] just because of their scoundrelism. They did this for nothing but just hurting someone’. Chen Ying (year 4, female) believed that perpetrators attacked others out of ‘their evil nature!’ Gu Ling (year 2, female) used gossiping as an example in her explanation. She said that ‘I think it is their human nature. A lot of people say that gossiping is part of girls’ human nature. They do it in any environments’.

5.3.5 Revenge or retaliation

Revenge and retaliation were outlined as important explanations for cyber aggression. The aggressor attempts to achieve revenge or retaliation for something the victim has done in offline or online environments. For example, Li Xiao (year 3, female) reported that a schoolmate who was teased by some students ‘got very angry’ and ‘he hacked into their online game accounts and stole some of their game equipment as revenge’.

When explaining revenge or retaliation as strong motivations for perpetration, many participants specifically mentioned ‘conflicts’ and ‘disagreements’. Ai Li (year 3, female) interpreted the stimulus drawing by saying; ‘for example, in this picture, maybe these two people had conflicts in real life. Then the boy takes revenge by sending hurtful messages to the girl. Such things often happen in real life’. En Tong (year 4, male) provided a similar explanation by saying ‘maybe the aggressor had conflicts with the victim, but he did not solve the problem with the victim face-to-face. Then he targeted her for revenge’.

Other words many participants used in their explanations were ‘punish’ and ‘punishment’ to describe when the aggressor was unhappy with someone’s behaviours offline or online. The aggressor would prefer to ‘punish’ the wrongdoer online. For example, when Bao Ming (year 2, male) described how a boy was victimised by cyberstalking, he argued that ‘it was him who did the wrong thing at first place. Those so-called “aggressors” tried to punish him in such ways’. Fang Ming (year 3, male) provided the same explanation that ‘those so-called aggressors think that those people who behaved badly deserve such punishment’.

5.3.6 Jealousy

Jealousy is another commonly used explanation for cyber aggression. Ai Li (year 3, female) discussed her friend’s experiences by saying that ‘some of them were just jealous of my friend’s experience of travelling abroad. They attacked others to make themselves feel better’. Similarly, Kong Yu (year 3, male) said ‘I guess maybe some of them were jealous of my friend because she was really a nice and popular girl. So, they made mean comments about her to destroy her reputation’. Two participants stated that female students tend to target others in online environments out of jealousy. Peng Wei (year 1, male) stated ‘some did this out of jealousy. I think this is especially true among girls’. And Ting Ting (year 1, female) explained that ‘girls like gossiping

more both in real life and in cyber environments. They gossiped about other people out of jealousy, aversion or boredom’.

5.3.7 Venting negative feelings or relieving pressure from offline life

It was explained that when students experienced something unpleasant that caused negative feelings or pressure and they had no way to release it, they targeted others, even if they did not know their victim. For example, En Tong (year 4, male) explained that ‘for the aggressor, maybe he was hurt by someone in real life and he felt sad, angry or humiliated. Then he relieved his negative feelings or pressure by targeting other people in the cyber world’. Fang Ming (year 3, male) provided a similar explanation by saying ‘he had previously experienced something unpleasant and then he felt sad, angry or humiliated. Then he tried to relieve his negative feelings by targeting other people in the cyber world’. Seven other participants held the same opinions. Hao Ling (year 3, female) said that ‘sometimes, someone made them sad, angry or anxious but they just could not relieve the negative feelings in offline life. Then they would try to relieve it by attacking other people online’. Another student stated:

> Another reason is that they experienced something unpleasant and they felt upset, angry or embarrassed. But they could not find any way to vent their negative feelings in real life. Then they tried to relieve it by attacking other people online (Ren Xue, year 3, female).

5.3.8 Exercising online free speech

Many students consider the cyber world a ‘free world’. More than one-half of participants said that the ‘freedom’ of cyberspace is an important reason for cyber aggression. Some argued that the internet is a mask ‘because on the internet we can easily hide our real identity’ and ‘many people do whatever they want to do on the internet without worrying about being discovered’ (Qiu Jie, year 1, female). Bao Ming (year 2, male) gave a similar explanation; ‘some others thought they did not have to

take any responsibility when they were saying whatever they wanted to in the online environments’. It was indicated that the perpetrators ‘believed that as long as they did not hurt anyone’s body, it was okay to behave aggressively online’. Students took this ‘as freedom in the cyber world’ (Kong Yu, year 3, female).

5.3.9 Blindly following others

A few participants interpreted perpetrators’ behaviours as ‘following others blindly’. These students ‘did not know the truth and they did not want to know the truth. They just did what other people did’ (Chen Ying, year 4, female). Gu Ling (year 2, female) held the same opinion, saying ‘and some others who did not have their own thinking did what other people did. When they saw some people were attacking my friend, they followed them’. In this way, when some students read mean comments, rumours or gossip and see mean pictures about someone, they do not make their own judgment first. Instead, they behave aggressively by posting similar nasty and offensive information to victims to worsen the victims pain.

5.3.10 Summary of explanations

By reviewing the explanations of the students, it was discovered that the main reasons that Chinese university students perpetrate cyber aggression include alleviating boredom, having fun, disliking someone, because of negative personalities or human nature, revenge or retaliation, jealousy, to vent negative feelings or pressure, as an exercise free speech online and following others blindly. The following section explores the effects of cyber aggression on students.

5.4 Effects of Cyber Aggression

5.4.1 Introduction

Participants were asked about the effects of cyber aggression. Aggressive behaviours in cyberspace harm both the aggressor and the victim in many ways. For example, Bao Ming (year 2, male) thought cyber aggression was ‘really terrible’, as it

‘brought both mental and physical effects’ onto his friend. Chen Ying (year 4, female) emphasised the hurt caused by cyber aggression, saying that ‘it can be both mentally and physically hurtful’. As shown in Table 5.3, the perceptions of participants about the effects of cyber aggression were split into five categories.

Table 5.3

Categories of Effects of Cyber Aggression

Effects of cyber aggression on Chinese university students	Emotional (i.e., anger, embarrassment, humiliation, sadness, fear or worry)
	Personality
	Social relationships and activities
	Physical
	Self-reflection and improvement

5.4.2 Emotional effects

Participants revealed that when they were subjected to cyber aggression they experienced a range of negative emotions including anger, embarrassment, humiliation, sadness, fear and worry. The most prominent emotions were anger, embarrassment and humiliation. Examples of each emotion were reported by students. Gu Ling (year 2, female) said ‘but one made a comment that it looked ugly and also added a disdainful emoji. I was really angry about this’. Kong Yu (year 3, male) said that ‘for the victim, it can bring many negative effects. For example, they may feel sad, scared or embarrassed’. Qiu Jie (year 1, female) said that ‘in addition, not only the victims themselves could read those mean comments and see the hurtful pictures, but also the onlookers could do too. This will make the victim feel embarrassed and humiliated’. Ou Yang (year 3, female) added that ‘of course, this sort of thing hurts the victims. They may feel sad, angry, or humiliated’. Peng Wei (year 1, male) explained that ‘obviously, she was hurt by the boy’s messages because she is crying. Maybe she feels sad, angry, scared or other negative feelings’. En Tong (year 4, male) stated that ‘it was no fun at all to worry about being human flesh searched and being targeted by a group of people’.

5.4.3 Effects on personality

Although cyber aggression behaviours harm victims, it does not mean the perpetrators escape from harm. Half of the participants argued that cyber aggression does not only hurt the victim but also harms the aggressor. The aggressor’s online behaviours can strengthen their negative thoughts and personality. Li Xiao (year 3, female) believed that ‘cyber aggression has negative effects on both the aggressor and victim’. She argued that ‘if the aggressor always attacks others online, he/she may become more and more negative’. Chen Ying (year 4, female) held the same opinion, saying ‘I believe those perpetrators always have negative thinking about people and things around them and the negative thinking will prevent them from having real happiness’.

5.4.4 Effects on social relationships and activities

It was argued that cyber aggression may have negative effects on social relationships and activities for both the aggressor and the victim. For the aggressor, one participant said that ‘in the long run they will lose friends and their reputation among

people around them’ (Chen Ying, year 4, female). Fang Ming (year 3, male) held the same opinion; ‘if one day they are discovered that they did hurt other people, it is very likely that they will lose their friends and other people’s respect’. Similarly, Shen Ke (year 2, female) argued that ‘cyber aggression exposed the dark side of the aggressors. It may drive friends from them’.

For the victims, it was indicated that, to avoid the aggressor and their schoolmates, victims tended to reject school activities. For example, Bao Ming (year 2, male) reported that, after being targeted online, his friend ‘was afraid to go to school because she did not want to face her schoolmates’. Kong Yu (year 3, male) described the similar situation of his friend by saying ‘but she seldom participated in class and school activities after she was attacked’.

Two male participants interpreted the effects of cyber aggression on young people’s social relationships from a positive perspective. En Tong (year 4, male) made his argument by saying ‘it can be a chance for you to get to know new friends’. He then shared his story about how he made friends with someone who had targeted him in Weibo. He used a Chinese saying to summarise his story: ‘no discord, no concord’, which means ‘Friends are often made after a fight.’ Meng Xi (year 2, male) shared a similar opinion by saying ‘I got to know some of my friends in some flaming. It takes a fight for people to know each other’.

5.4.5 Physical effects

Although cyber aggression perpetrators do not have physical contact with their victims, according to explanations by participants, cyber aggression still leads to negative physical effects on the victims. This can include poor quality sleep and not being able to focus on study. These are closely related to negative emotions. Li Xiao (year 3, female) shared her story:

> I was afraid to listen to ghost stories. Then some of my roommates sometimes sent ghost stories to me via QQ at midnight to scare me. I was really afraid of those stories. I remember once I was up all night.

Bao Ming (year 2, male) described his friend’s situation after being subjected to cyber aggression by saying ‘in the following weeks, she often cried and even lost her hair and sleep. She could not focus on her study’.

5.4.6 Self-reflection and improvement

In spite of the hurt and negative effects caused by cyber aggression, some participants provided a positive interpretation. They argued that the unpleasant experiences of cyber aggression can be taken as opportunities for self-reflection and improvement. Cyber aggression can remind students of their faults and motivate them to make changes. For example, En Tong (year 4, male) explained ‘if it is the victim who did something wrong first, then it is a chance for her to have self-reflection so that she can behave better in the future’. Fang Ming (year 3, male) regarded his experience of cyber aggression as ‘a good lesson’, as he ‘learned how hurtful cyber aggression could be’. Conversely, in response to cyber aggression, students can learn how to deal with pressure and negative experiences. Jin Pei (year 4, female) confirmed this by saying:

> We are graduating soon and we will finally step into the society, which is much more complex than the school environment. At that time, we will not seek protection and help from other people. Therefore, we should learn how to solve problems and handle pressure by ourselves. We should learn to turn the unpleasant effects into opportunities to make ourselves stronger.

Other participants interpreted the effects of cyber aggression from positive perspectives as well. Chen Ying (year 4, female) agreed that ‘such unpleasant experiences can also be taken as an opportunity to learn how to deal with troubles and pressure’.

5.4.7 Summary of cyber aggression effects

This section has described a range of negative and positive effects of cyber aggression. Although some participants argued that experiences of cyber aggression can be taken as opportunities for self-reflection and improvement, most students revealed the hurtful nature of cyber aggression. The following section reports how Chinese university students respond to cyber aggression.

5.5 Responses to Cyber Aggression

5.5.1 Introduction

When participants were asked about the response strategies of themselves, their friends or their schoolmates, many provided passive methods. Those students believed that ‘the best way is to ignore it’ (Fang Ming, year 3, male) and choose ‘not to respond to those hurtful comments’ (Gu Ling, year 2, female). Another type of strategy is active; that is, ‘fighting back’. In addition, many students sought help from people around them. As shown in Table 5.4, response strategies can be split into four categories.

Table 5.4

Categories of Responses to Cyber Aggression

Responses of Chinese undergraduate students to cyber aggression	Ignoring or doing nothing
	Fighting back
	Talking to friends or classmates
	Talking to parents

5.5.2 Ignoring or doing nothing

Half of the participants employed the strategy of ignoring the bully or doing nothing. There were different explanations for this strategy. Some participants said that they ignored the aggressive behaviour out of helplessness or they did not know any other strategies. Wang Yi (year 2, male) believed, as he could ‘not avoid it’, then ‘the best thing to do is to ignore it’. Bao Ming (year 2, male) asked his friend why she did

not defend herself when she was subjected to cyber aggression. She explained ‘it will be useless to do so and maybe more explanation will make things more complex’. Kong Yu (year 3, male) indicated the same opinion, saying ‘if she fought back, things would be worse’.

Another group of participants explained that some victims chose to ignore the aggressors, as they believed it was not worthwhile to spend time on the aggressor. For example, Ren Xue (year 3, female) said ‘I did not respond. I did not want to waste time in arguing with them. I just ignored them’. Ai Li (year 3, female) explained that spending time with the aggressor is a waste because they (the aggressors) are ‘uncultured’ and if she fought back, she ‘would be as uncultured as them’.

Some participants indicated that ignoring the aggressor or doing nothing can be an effective strategy for stopping the behaviour. En Tong (year 4, male) used to be an internet troll and he provided the advice from the perspective of an aggressor by saying ‘as an “experienced” internet troll, I can tell you that if you just ignore those unpleasant things, it will stop before long’. Fang Ming (year 3, male) agreed with this opinion by saying ‘I think the best way to stop it is to ignore it. Since some people perpetrated it for fun, for excitement or for other people’s attention, if we just ignore it, the aggressor will feel bored and stop it’.

5.5.3 Fighting back

Nearly one-third of the participants asserted that when they were targeted in online environments, they ‘certainly would fight back’. For example, En Tong (year 4, male) indicated how he would fight back by saying:

> If he threw nasty words, I could throw nastier ones; if he did name-calling, I could do more; if he denigrated me by posting mean comments and pictures or spreading rumours, I could denigrate him in worse ways. Anyway, I just would fight back.

Gu Ling (year 2, female) fought back ‘by commenting on him [the aggressor] as uneducated and ignorant’. Sometimes, the bystanders would fight back against the aggressor for the victim. For example, Hao Ling (year 3, female) mentioned a girl’s story; ‘her boyfriend, together with some of his friends, fought back against that aggressor. They conducted human flesh searching on him and tried to find out who he is’.

The students considered fighting back an effective means to protect themselves. They believed this strategy told aggressors that the victims were not vulnerable, preventing the aggressors from hurting the victims further. For example, Ai Li (year 3, female) explained her opinion by saying:

> I think she should fight back! Tears cannot protect her. If the aggressor knows that she is crying, he may think that she is afraid and behave even worse. But if the victim fights back and lets him know that she is not afraid of him, the aggressor will probably stop such bad behaviour.

Gu Ling (year 2, female) held a similar opinion, arguing ‘if I were the victim, I would fight back at first. I would let him [the aggressor] know that I am not vulnerable and fragile’. Meng Xi (year 2, male) held the same opinion, saying ‘I would fight back. I would just let the aggressor know that I am not the person to trifle with’.

5.5.4 Talking to friends or classmates

More than two-thirds of participants indicated that they would talk to friends or schoolmates about their experiences, as their friends and schoolmates understand them better than their parents and can provide them with emotional support and help them to respond. For example, Li Xiao (year 3, female) reported ‘we would rather tell classmates or friends because they can understand us’. Ai Li (year 3, female) indicated a similar opinion; ‘if I was seriously victimised by someone online, I would tell my close

friends and we can work out a solution together’. Deng Xin (year 1, female) held the same opinion and said:

> I can talk to my friends and classmates. Maybe they have some ideas or methods that I do not know. And my close friends can understand my feelings much better than parents and teachers do. If I get their support, I will not be afraid of dealing with the troubles.

5.5.5 Talking to parents

According to most participants, talking to parents is not the first choice of undergraduate students responding to cyber aggression. However, some of them did so indirectly. They asked their parents’ opinions about the issues related to their cyber aggression experiences, instead of telling their parents about what happened to them. For example, Fang Ming (year 3, male) shared his story, saying:

> Over dinner, I talked about the issue of these two athletes with my parents. I did not tell them that I was attacked online. I just wanted to hear their opinions about the issue. Although my parents did not do anything to help me out from the unpleasant experience of being targeted online, their ideas made me feel supported.

Li Ming (year 2, male) had a similar experience. He reported:

> I chatted with them [my parents] about nowadays people having too much hostility. They agreed with me. And they also shared some news about aggressive online behaviours and some true stories that they knew. Then I felt that I was not alone in experiencing such unpleasant things.

However three participants reported that when they talked to their parents about their experiences, their feedback made them decide not to talk about their experiences to them anymore. Chen Ying (year 4, female) told her parents about her experience, but her parents thought ‘it was just a joke’ and she ‘should not mind it’. Chen Ying believed

that her parents ‘never took her experiences seriously’. Similarly, Kong Yu’s (year 3, male) parents thought his experience ‘was really not a big issue’. Peng Wei (year 1, male) reported the feedback she received from her parents, saying ‘I did feel hurt. But my parents told me that it was just a joke and I should not mind it’.

5.5.6 Summary of student responses

Some students responded to cyber aggression by ignoring it, as they did not know what else they could do or did not want to make things worse. Some students fought back. Another common method is talking with friends, as they believe they can receive help and understanding from their friends. Some students attempted to indirectly discuss cyber aggression with their parents; that is, they did not disclose their real experiences.

5.6 Influence of Parents on the Responses of Students

5.6.1 Introduction

Although most participants did not discuss their experiences of cyber aggression with their parents, to a certain extent, the responses of students were influenced by their parents. The influence of parents is summarised in Table 5.5.

Table 5.5

Categories of Parents’ Influence on University Students’ Responses to Cyber Aggression

Influence of parents on responding strategies of students	Dismissal
	Self-discipline and criticism
	Harmonious and peaceful interpersonal relationship
	Using the internet and smartphone less

5.6.2 Dismissal

Some participants indicated that their parents did not empathise or take their experiences seriously. This was an important reason why undergraduate students did not talk to them about it. For example Li Xiao (year 3, female) said that her parents ‘may not take it seriously’ and only take it as ‘tinkering between young kids’. Bao Ming (year 2, male) held a similar opinion, saying:

> To my understanding, most Chinese parents do not take their children’s cyber aggression experiences seriously. They even do not have the patience to listen to us talking about the whole issue. They make arbitrary judgment according to their own life experiences.

Similarly, Chen Ying (year 4, female) mentioned that ‘parents never take our experiences seriously. They thought it was only a joke’.

5.6.3 Self-discipline and criticism

Many parents tended to educate their children to be self-critical and to exercise self-discipline when problems arise. More than one-third of participants reported that parents preferred to first find fault with their children when their children attempted to tell them about their cyber aggression experiences. For example, Deng Xin (year 1, female) reported that her parents always taught her ‘to have self-discipline and self-criticism’. Therefore, she tended to ‘look into her own behaviours and manners first’ when she was subjected to online attacks. Li Xiao (year 3, female) reported a similar situation, saying ‘sometimes they even asked what we did wrong first. They believe if we did not do anything wrong first, other people would not attack us’. Seven other participants had the same opinions. Chen Ying (year 4, female) said that ‘some other parents may try to find fault with their children at first. They will ask: “what did you do to your classmate/schoolmate? Otherwise, he/she will not target you out of nothing!”’ Ni Gang (year 1, male) said that ‘they always believed that it was our faults that caused other people’s attack’.

Although most students disapproved of their parents’ opinion, this category of ‘self-discipline and self-criticism’ echoes students’ explanations of the effects of cyber aggression in the category of ‘self-reflection and self-improvement’. By examining one’s behaviours and seeking out one’s fault, students believe they can improve themselves.

5.6.4 Harmonious and peaceful interpersonal relationships

Nearly one-half of participants reported that their parents ‘gave them lessons that they should build good relationships with classmates’ (Li Xiao, year 3, female) and ‘to be nice and polite to other people’ (Bao Ming, year 2, male). However, many participants thought this teaching was ‘not helpful at all’ (Ai Li, year 3, female). Chen Ying (year 4, female) provided an example of her parents’ attitudes. When she told her parents that she wanted to fight back against the aggressor, her parents ‘told her not to do so because her relationship with that student would be damaged if she did so’. Chen Ying’s parents ‘thought it was not worthwhile to break relationships just because of a joke’. Gu Ling (year 2, female) argued that, in the eyes of their parents, ‘it is extremely important to keep harmonious and peaceful relationships with other people’. The following example confirms this point:

> My parents always told me to be polite and nice to other people. Harmonious relationships are very important. They told me that if other people are kind to me, I should repay with more kindness; but if someone is unkind to me, I should keep distance from that person instead of doing anything unkind—stay at a respectful distance (Meng Xi, year 2, male).

Further, Ou Yang (year 3, female) said that ‘my parents and my cousin’s parents always told us to keep harmonious relationships with other people. They taught us to be nice and polite to other people’. Another student said:

> Most of our parents always told us to keep harmonious relationships with other people. We were taught to be nice and polite to other people. But they never taught us how to defend and protect ourselves when we were attacked (Ren Xu, year 3, female).

5.6.5 Using the internet and smartphone less

Some parents tended to seek out the reasons for cyber aggression from external factors. Nearly one-third of participants reported that parents ‘thought young people were attacked in the cyber world because of using the internet and cell phone too much’ (Bao Ming, year 2, male). Therefore, parents tended to ‘tell children to put down the cell phone and study hard’. Chen Ying (year 4, female) reported the same opinion from her parents, saying ‘some other parents thought we used the internet and the smartphone too much. They argued that if we could use them less, we would have fewer chances to be attacked online’.

5.6.6 Summary of the influence of parents on the responses of students

Participants explained that the main way in which the responses of their parents influenced them was in the category of self-discipline and self-criticism. This point is consistent with the effects on students, which was the category of self-reflection and self-improvement. Although students were unhappy with this response from their parents, it influenced their reaction to the cyber aggression. This issue will be further discussed in Chapter 6.

Chapter 6: Study Discussion

In the first stage of this study, a quantitative approach (i.e., a questionnaire survey) was used to examine the overall rates of cyber aggression involvement among students in a Beijing university, including gender and year level differences and types and digital environments of cyber aggression victimisation and perpetration. The findings suggest that cyber aggression is prevalent among students. Only less than one-third of participants (29.8%, n = 323) were not victimised and nearly two-thirds (63%, n = 682) targeted others. Significant correlations between cyber aggression victimisation and perpetration were found. Nearly half of participants (58.4%, n = 632) were a victim–aggressor. Male students were more likely to be victimised by, and perpetrate, cyber aggression than female students. The rates of victimisation and perpetration in the final year of students’ undergraduate study were higher than rates in other year levels. Making mean or hurtful comments and spreading rumours were the most common types of victimisation and perpetration. Participants reported WeChat and massive multiplayer online games as the digital environments in which cyber aggression was more likely to occur.

In the second stage of this study, a qualitative approach was used to further explore the nature of cyber aggression among Chinese university students. Semi-structured interviews were used to provide an in-depth investigation of students’ cyber aggression experiences, explanations for perpetration, effects of aggression, responses to aggression and the influence of parents on the response of students. Participants indicated that cyber aggression behaviours are extremely hurtful. A variety of forms of cyber aggression were discovered in students’ stories, including spreading rumours, gossiping, making mean pictures and comments, name-calling, online flaming and HFS. In particular, HFS was discovered to be a unique behaviour reported by Chinese

university students. The students explained that three factors motivated them to engage in cyber aggression. The explanations included factors internal to the aggressor, (i.e., alleviating boredom or having fun, negative personality or human nature, venting negative feelings or pressure and blindly following others) relationship problems (i.e., disliking someone, taking revenge or retaliating and jealousy) and exercising online free speech, which is related to online anonymity and disinhibition. Participants maintained that cyber aggression is hurtful to both victims and perpetrators. These hurtful behaviours are detrimental to the emotions, personality, social relationships and activities and physical well-being of the young people involved. However, some students also reported positive effects such as self-reflection and improvement. The students did not advise of many effective strategies for responding to cyber aggression. Their limited responses included ignoring the attack or doing nothing, fighting back, talking to friends or classmates and talking to their parents. Although seeking the help of adults was not the preferred strategy to address cyber aggression, some students indicated that, to an extent, their parents influenced the way they responded. The categories of the ways parents responded were dismissing the student’s experience, questioning the self-discipline of the student and encouraging self-criticism, maintaining harmonious and peaceful interpersonal relationships and using the internet and smartphone less.

This chapter combines the results and findings from the two stages of this study and covers six areas. First, a discussion about the high rates and gender and year level differences in Chinese university students’ involvement in cyber aggression was conducted. This is to respond to the first quantitative research question. Second, students’ explanations for cyber aggression were discussed to address the second qualitative research question. Third, types and digital environments of cyber aggression occurrence, together with the experiences of students, were discussed. This is in

response to the second and third quantitative research questions and the first qualitative research question. The fourth area is the effects of cyber aggression, which were asked in the third qualitative research question. Fifth, students’ responses to cyber aggression and how their responding strategies were influenced by their parents is addressed. This corresponds to the fourth and fifth qualitative research questions. Finally, the limitations of this study are discussed. For specific research questions, see Chapter 1.

6.1 High Rates of Cyber Aggression Involvement

The findings of this study indicate high rates of cyber aggression victimisation and perpetration among Chinese university students. These rates are inconsistent with the rates of cyberbullying discovered in recent studies among university students in other countries. Compared to findings by Dilmac (2009) and MacDonald and Roberts-Pittman (2010), the rates in the current study are much higher. Dilmac (2009) reported more than 55% victimisation and 22% perpetration among nearly 700 Turkish undergraduate students. MacDonald and Roberts-Pittman (2010) reported 22% victimisation and 9% perpetration among more than 400 American college students. However, the overall rates of cyber victimisation indicated by the current study is lower than the findings of Bennett, Guran, Ramos and Margolin (2011), who reported 92% victimisation.

The inconsistency in the prevalence of victimisation and perpetration may be explained in part by inconsistent definitions, reporting time ranges and sample origins (Berne et al., 2013; Faucher et al., 2014; Garaigordobil, 2015; Kowalski et al., 2014; Lee, 2017). In the study by Bennett et al. (2011), the term ‘electronic aggression’ was used, covering the behaviours of ‘revealing private information, insulting and derogatory language, humiliation, obsessive monitoring, and threats’ (p. 411). Beran et al. (2012) used the term ‘cyber-harassment’, referring to behaviours of sending ‘threatening or excluding messages’ through devices in digital environments (p. 563).

Zalaquett and Chatters (2014) examined the rates of cyberbullying victimisation and perpetration. In their study, cyberbullying was defined as ‘any behaviour performed through electronic or digital media by individuals or groups who repeatedly communicate hostile or aggressive messages intended to inflict harm or discomfort on others’ (p. 1). In this study, cyber aggression was used as a general term, referring to both repeated and un-repeated harmful action that were intended to hurt others in cyberspace.

In the study by Bennett et al. (2011), the origins of the participants included white, Asian, African American and Native Hawaiian or Pacific Islander. Beran et al. (2012) collected data from the participants in one American and two Canadian universities; however, racial information was not provided. The study by Zalaquett and Chatters (2014) was conducted among a sample whose origins included European American, African American, Hispanic, Asian and other. This research used a Chinese sample in the cultural context of Confucianism.

Bennett et al. (2011) examined the rates of electronic victimisation within the past year among more than four hundred urban university students. In the study of Beran et al. (2012), more than one thousand students rated their cyber-harassment involvement while in university. Zalaquett and Chatters (2014) examined the rates of more than six hundred university students’ cyberbullying victimisation and perpetration during college. This current study assessed the rates of cyber aggression involvement in the last thirty days.

The findings from this research indicate that cyber aggression is pervasive and affects university students in the Chinese cultural context. To make the findings of the prevalence of cyber aggression among emerging adults comparable, it is important to apply a consistent definition and systematic measurement in future research.

Cultural context may also influence students’ attitudes to their online behaviours. Previous research indicates that cultural norms and values influence people’s perceptions of, and attitudes towards, aggressive behaviours (Chen & French, 2008; Crick & Hamaguchi, 2013; Crystal, 2000; Kawabata, Wright, Li & Shi, 2014; Wright et al., 2016). Bergeron and Schneider (2005) conducted a quantitative review of 36 studies on peer aggression, covering more than 40,000 participants from schools and universities in 28 countries. The results of the cross-cultural comparisons indicate that, despite differences between samples and measurement instruments, people from collectivistic cultures demonstrated lower levels of aggression than those from individualistic cultures. Collectivistic cultures value cooperation, harmony and cohesiveness among individuals (Li, Wang, Wang & Shi, 2010; Schwartz, 1990) and one’s position in a stratified society (Kolstad & Gjesvik, 2014). In this cultural context, people place high value on interdependence and maintaining relationships with others in both family and social life (Matsumoto, 2016). Therefore, collectivist cultural values suppress aggressive behaviours (Wright et al., 2016). In contrast, individualistic cultures emphasise independence and self-reliance (Matsumoto, 2016). Therefore, connections between individuals are loose (Li et al., 2010). Forbes et al. (2009) compared the prevalence of peer victimisation among American, Polish and Chinese college students. The US is identified as a highly individualist country. Poland has a culture of intermediate collectivism and individualism and China is a highly collectivist society. Findings indicate that the levels of direct and indirect aggression among Chinese participants were lower than American and Polish students. However, the results of this study do not reconcile with the above research findings. The overall rates of both victimisation (70.2%) and perpetration (63%) were relatively high.

One possible explanation for this discrepancy in findings could be the combination of traditional Chinese culture with Western thought in China’s rapidly

changing society. Historically, China has been labelled a collectivist society. In modern Chinese culture, China has begun to shift towards a market-oriented society (Chen, 2012) in which individualism and collectivism coexist. Young people adhere to, and are influenced by, elements of both cultural values. These social changes result in looser ties between individuals, less concern for the well-being of the group (Kolstad & Gjesvik, 2014) and greater endorsement of aggression when competing for job opportunities or graduate positions (Li et al., 2010). Voronov and Singer (2002) suggested that, in addition to cross-national differences between collectivism and individualism, there may be significant within-country differences; that is, collectivists can act individualistically. For example, in urban areas, more educated young people are less likely to be collectivist. This could explain why, in this study, university students demonstrated higher levels of involvement in cyber aggression than would be expected based on comparable studies (i.e., Forbes et al., 2009).

6.1.1 Differences between genders

The results of this study demonstrated differences in involvement in cyber aggression between genders, particularly with respect to serious victimisation and perpetration. Compared to female students, males were more likely to experience and perpetrate cyber aggression at serious levels. These are consistent with research findings from a study by Akbulut and Eristi (2011) of Turkish university students who reported that male tertiary students reported greater victimisation and perpetration than female students. Bennett et al. (2011) reported similar findings; that males were more likely to be victimised than females. MacDonald and Roberts-Pittman (2010) suggested that rates of perpetration among male college students were higher than female college students.

Barlett and Coyne (2014) argued that cyber aggressive behaviours do not involve direct physical contact between the perpetrator and victim and online aggressors harm their victims in non-physical ways. Therefore, cyber aggression can be considered

a form of indirect aggression that takes place in a digital environment. According to developmental stage theories, females develop social skills earlier than males (Steinberg, 2010). Indirect aggression involves social structure knowledge and social skills. Therefore, it is understandable for females to have higher levels of cyber aggression involvement than males during adolescence (Archer, 2004; Barlett & Coyne, 2014).

In this study, male university students reported higher rates of cyber aggression involvement than females. This phenomenon may be explained by three reasons. First, male students catch up with, and surpass, female students in later adolescence and early adulthood in the course of their development. Second, it is generally believed that males are more technologically sophisticated than females (Huffman, Whetten & Huffman, 2013), which could explain the greater levels of cyber aggression involvement, as males could be more comfortable being aggressive using digital devices. Further, as explained by Agatston, Kowalski and Limber (2007), male and female students have different perceptions of cyberbullying. Female students regard cyberbullying as a problematic issue, while males do not consider cyberbullying a serious problem. This may explain why more male students tend to perpetrate cyber aggression than female students.

In the Chinese cultural context, the findings in this research about differences in cyber aggression involvement between genders are consistent with the literature on involvement of Chinese adolescents in cyberbullying. For example, Zhou et al. (2013) discovered that male Chinese high school students were victimised by, and perpetrated, cyberbullying more than females. In the Chinese Confucian cultural context, although males are educated to be active, brave and independent, females are expected to be gentle, polite and kind. Zhou et al. (2013) argued that these cultural values may lead to less aggressive tendencies among females in both offline and online environments.

Some researchers investigated the characteristics of language used by males and females in online communication. It was suggested that females tend to use more

affiliative, positive and socially supportive language, while males preferred assertive and negative language. Online conversations of males contained more rebuttals, critiques and disagreements (Erkens & Janssen, 2008; Hong & Hwang, 2012; Jeong & Davidson-Shivers, 2006). Such language features of online communication are consistent with gender traits typical of the Chinese cultural context (Zhou et al., 2013). The abovementioned language features and cultural values may explain that, compared to female students, male students have greater involvement in aggressive incidents in online game environments.

The findings of this research indicate that male students are more likely to experience and perpetrate cyber aggression than female students, which is consistent with findings from a study by Akbulut, Sahin and Eristi (2010) of nearly 1500 Turkish Facebook users. However, in their study, the interaction between differences in cyber victimisation between genders and the location of the internet usage was explored. For example, female participants were more likely to experience bullying when they used the internet outside home than at home. Akbulut and Eristi (2011) suggested that the study program may be another factor that influences differences between genders. According to gender socialisation theory, compared to males, females are more likely to observe rules. Occupational socialisation theory suggests that, in spite of gender, individuals at the same workplace share a similar outlook on computer ethics (Adam, 2000). Akbulut, Uysal, Odabasi and Kuzu (2008) discovered some interaction between gender and occupational socialisation theories. Specifically, female students were more likely to obey computer use ethics across diverse study programs, while males demonstrated various levels of ethical computer use. Therefore, in future studies, more related variables (e.g., locations of internet usage and study program) should be included in investigations of differences between genders.

The current study indicated that, although more male university students had been victimised by, and perpetrated, cyber aggression, the overall rates of both victimisation and perpetration were high among male and female students. Male and female university students’ understanding of cyber aggression and the potential consequences of their online behaviours requires further investigation.

6.1.2 Differences between year levels

The findings from this study indicated that the levels of cyber aggression victimisation and perpetration among Chinese university students increased over the four years of their university life. Further, fourth year students reported higher rates of involvement in cyber aggression at serious levels than the other year levels.

The study by Balakrishnan (2015) discovered that students aged between 21 and 25 were more likely to be victims and bullies from the age groups of 17 to 20 and 26 to 30. However, within the age bracket of 21 to 25, older participants reported lower rates of cyberbullying. In studies among adolescents, older students were less likely to be victims and aggressors than younger students. These age differences were found to be insignificant (Smith et al., 2008; Varjas, Henrich & Meyers, 2009; Ybarra & Mitchell, 2004b). Balakrishnan (2015) explained that, as people become wiser and more mature as they become older, the tendency to perpetrate online aggressive behaviour declines. However, this is not consistent with the findings of this study.

Generally, first year university students pursue social and sexual autonomy and socialise with their peers in the process of adjusting to their new environment. Balakrishnan (2015) reported that, among a sample of Malaysian college students, the more time that students spent online, the more likely they were to be victimised or perpetrate cyber aggressive behaviours. However, Bauman and Baldasare (2015) discovered that first year students spent significantly more hours online than third and fourth year students, but were less likely to be victimised in cyberspace, as the online

activities of first year students were more closely related to school than older students. This finding could explain the lower levels of cyber aggression in first and second year students compared to year third and fourth year students in this study.

Greater competition during fourth year could be another explanation for higher levels of victimisation and perpetration experiences in this year level. According to Jones and Scott (2012), high competitiveness among university students results in a greater likelihood of cyber aggression incidents. They discovered that a student might be motivated to bully their teammates to achieve a better grade for a group learning project. This could also be true of third and fourth year Chinese university students who are preparing to enter the workforce and will be competing for graduate positions.

In this study, investigations of types and digital environments of cyber aggression were conducted so that differences in experiences in cyber aggression between genders and year levels could be better understood. Study 2 explored the influence of parents on university students’ involvement in cyber aggression. In the Chinese Confucian cultural context, parents educate their children to have a high level of self-control (Chen et al., 2003). With these cultural values, self-discipline and compliance are considered qualities indicative of social maturity and competence (Keller et al., 2004). However, Chinese university students begin to live in dormitories after enrolment and spend less time with their parents. Therefore, the influence of this cultural teaching from their parents may diminish. The following section addresses students’ explanations for cyber aggressive behaviours. This may illuminate the reasons for high rates of cyber aggression involvement.

6.2 Explanations of Cyber Aggression by Students

The students’ explanations can be divided into three types. The first considers factors internal to the aggressor, including alleviating boredom or having fun, negative personality or human nature, venting negative feelings or pressure and blindly following

others. The second type of explanation considers relationships, such as disliking someone, revenge or retaliation and jealousy. The third explanation is exercising free speech, which is related to online anonymity and disinhibition.

6.2.1 Internal factors

There is a vast array of explanations and motivations for cyber aggressive behaviours. For example, Smith et al. (2008) suggested that, in the UK, secondary school students might perceive online aggressive behaviours as less hostile than aggressive action in real life. Balaji and Chakrabarti (2010) discovered that, among a sample of Indian MBA students, some cyber victims and aggressors viewed online aggressive behaviours as jokes. In this study, the perceptions of Chinese university students were included. To an extent, they were associated with cyber aggression. Some participants attributed the aggressor’s online behaviours to factors internal to them, including alleviating boredom or having fun, their negative personality or human nature, their need to vent negative feelings or pressure or blindly following others.

The above explanations for perpetration range from negative to neutral. In cyberspace, people cannot see intentional cues such as facial expressions and body language (Tokunaga, 2010). Therefore, understanding motivations and intentions behind aggressive behaviours is more complicated. Further, there can be a discrepancy between the perpetrator’s intention and the victim’s interpretation. For example, some online behaviours may be intended for fun, but might be interpreted as ill-intentioned. To enhance the understanding of cyber aggression among young people, in future research, it would be worthwhile to investigate cyber aggression caused by motivations ranging from negative to neutral to positive. Additionally, differences in causes and motivations between genders should be explored. For example, Kellerman, Margolin, Borofsky, Baucom and Iturralde (2013) reported that humorous intentions were

commonly reported by male participants as a reason for electronic aggression perpetration. For females, negative emotion was a common cause.

6.2.2 Relationship problems

The relationship problems reported by Chinese university students include disliking someone, seeking revenge or retaliation and jealousy. This is consistent with research findings in other countries. For example, among Turkish university students, Akbulut and Eristi (2011) discovered that relationship problems are common motivations for young people to perpetrate cyberbullying. Hoff and Mitchell (2009) reported their findings from a sample of American undergraduate students in which they discovered that romantic relationship break-ups, envy, intolerance and the desire to gang-up on someone were common causes of perpetration. The results of a study by König et al. (2010) of a sample of German emerging adults indicated that victims of traditional bullying tended to cyberbully traditional aggressors as a form of retaliation. It is noticeable that when Chinese university students discussed interpersonal tension as a motivation for perpetration, many students argued that, when a person has conflict with someone, they would not discuss it with each other face-to-face; instead, they preferred to argue or fight back in a more covert way—in cyberspace. This can be explained by the characteristics of the Chinese cultural context in which hierarchical culture and collectivism are highly valued (Armstrong & Swartzman, 2001). In this collectivist society, it is generally believed that maintaining harmonious relationships and avoiding conflicts and tension are important (Kolstad & Gjesvik, 2014). This theory explains why Chinese university students tend to avoid face-to-face interactions to resolve conflicts or hide their negative feelings in real life. However, they preferred taking revenge or expressing negative feelings in cyberspace under the cover of computer and information technology.

It is interesting to note that when asked about their experiences of cyber aggression, unlike most other students, a first year female student indicated that there were not many instances of cyber aggression in her class. This student explained that

many collective activities had been organised for first year students and she believed that these activities helped the students build friendships and positive interpersonal relationships, reducing occurrences of cyber aggression (see Chapter 5 for this example). This student’s story is important, as it illuminates ways to reduce online aggression. One possible intervention approach is to encourage students to build positive and healthy interpersonal relationships at school. From a sample of American college students, Bauman and Baldasare (2015) discovered that first year students were less likely to be victimised. This was not a result of first year students spending less time online than students in other year levels. On the contrary, first year students stayed online significantly longer and spent more online time on school-related activities than students in other year levels. Further studies are required to explore how to facilitate school activities to prevent and intervene in cyber aggression.

6.2.3 Exercising online freedom of speech

The third explanation for cyber aggression is exercising online freedom of speech, which is related to online anonymity. This is not a unique motivation for cyber aggression. For example, in Turkey, using a sample of nearly 700 undergraduate students, Arıcak (2009) discovered that remaining anonymous was an important stimulator of cyberbullying behaviours. For cyberbullying among Malaysian young adults, Balakrishnan (2015) explained that maintaining anonymity in cyberspace allows the aggressor to perpetrate aggressive behaviours without being face-to-face with the victim. McKenna and Bargh (2000) suggested that anonymity is an important feature of online interactions and acting anonymously may facilitate an individual’s impulsive and aggressive behaviours. Anonymity may be accompanied by weakened self-awareness, which may lead to an inability to regulate one’s behaviour and a tendency to behave on the basis of emotional state. According to Calvete et al. (2010), due to anonymity, it is difficult to identify the aggressors; therefore, it is easy for them to escape punishment.

Thus, people who dare not perpetrate aggressive behaviours in real life would do so in cyberspace.

Another possibility is the online disinhibition effect. Varjas, Talley, Meyers, Parris and Cutts (2010) argued that motivations for cyberbullying can be categorised into internal and external. Online disinhibition is an internal motive. This finding is consistent with the argument by Kowalski, Limber and Agatston (2008) that, among the diverse motivations for online aggression, online disinhibition is an important cause. Joinson (1998) defined online disinhibition as ‘any behaviour characterized by an apparent reduction in concerns for self-presentation and judgment of others’ (p. 44). In the online environment, individuals may be allowed to show aspects of themselves that they would hide offline such as aggressive behaviours (Antoniadou et al., 2016). That is, by using digital devices and technology, anonymity, large audiences and limited supervision may result in an individual behaving differently in cyberspace than they would in real life (Kowalski et al., 2008).

Recent studies by Lee (2017), Bussey, Fitzpatrick and Raman (2015) and Gini, Pozzoli and Hymel (2014) demonstrated that perpetration was positively and significantly related to online disinhibition. In the online environment, aggressors avoid confronting victims face-to-face and avoid the consequences of their actions (Antoniadou & Kokkinos, 2015). In the Chinese Confucian cultural context, interdependence and group harmony are highly valued and aggressive behaviours are considered a threat to harmonious interpersonal relationships (Li et al., 2010). However, online disinhibition may ‘free’ perpetrators from these conflicts and tensions. Physical confrontation with victims can be avoided (Dehue et al., 2008) and aggressors feel less worried about damaging the harmony of offline interpersonal relationships. Antoniadou et al. (2016) argued that online disinhibition is not only a motivating factor for online

aggressive behaviours but is also an antecedent of cyber victimisation, which is due to young people’s exhibition of less inhibited behaviours online.

6.3 Different Types, and Digital Environments, of Cyber Aggression

6.3.1 Types of cyber aggression

In the current study, the rates of each type of cyber aggressive behaviour among Chinese tertiary students were examined. It was discovered that making mean or hurtful comments and spreading rumours were the most frequent types of behaviours in both victimisation and perpetration. For victimisation, the least-experienced type was creating a mean or hurtful web page. For perpetration, the least-frequent type was threatening to hurt through cell phone message.

The common types of cyber aggressive behaviour reported by previous studies included using insulting and hurtful language in online communication, spreading rumours, sending text-based offensive messages, pretending to be another person to attack someone, excluding someone from an online group, creating a mean or hurtful web page about someone, threatening someone, sending unwanted sexual texts or images and disclosing another’s privacy without consent (Arıcak, 2009; Beran & Li, 2005; Kokkinos et al., 2014; Mishna et al., 2010; Willard, 2007; Ybarra et al., 2007). Within different cultural contexts, the rates of each type of behaviour may vary, as individuals may have different beliefs and perceptions of their behaviours (Akbulut & Eristi, 2011; Li, 2007, 2008). For example, Akbulut and Eristi (2011) maintained that, in their cyberbullying study of Turkish university students, unwanted messages with political content, slang expressions in social websites and pranks among friends were defined as forms of cyberbullying. However, in other cultural contexts, these behaviours may not be considered aggressive acts.

In addition to the cultural perspective, the requirement of computer and internet knowledge and skills may also influence young people’s choice of online behaviours.

For example, compared to other online aggressive behaviours, making mean or hurtful comments and spreading rumours does not require considerable ICT knowledge and skills. The growth of 4G technology provides internet access to smartphones, which has enabled young people to log into social networking sites anytime and anywhere (Srivastava et al., 2013). For example, in China, WeChat is one of most widely used social media apps. It is a social networking platform that allows diversified instant communication (e.g., individual communication, group communication and mass communication). By the end of 2014, over 600 million people were using WeChat and each user read approximately six articles on a daily basis (Tang et al., 2017). As long as digital devices are internet or 4G enabled, young people can log into a social networking platform account to read and make comments on other people’s posts and spread messages, including malicious rumours. However, if people want to create a web page, they must possess moderate ICT knowledge and skills. Therefore, compared to creating mean or hurtful web pages, it is easier and faster to make mean or hurtful comments and spread rumours. As such, these are the more prevalent types of cyber aggression victimisation.

Huang and Chou (2010) reported that threatening was the most common type of cyberbullying for victims and aggressors among Taiwanese junior high school students. However, it was not indicated in what digital environment these threatening behaviours occurred. Huang and Chou (2010) argued that, compared to other aggressive behaviours, threatening might be considered seriously hurtful. Therefore, the aggressors would perpetrate the threats in secret. Mainland China has a similar cultural context to Taiwan. It is understandable that, among Chinese university students, threatening is perceived as seriously wrong behaviour. Therefore, the aggressors of this behaviour hide their real identities. Remaining anonymous is a motivation for online aggression and different types of cell phone activities lead to different levels of aggressive impulses (Wright,

2014). For example, compared to logging into an online chatting app, sending a cell phone message is more likely to disclose one’s phone number that can be traced. The possibility of being identified may discourage aggressive behaviours. This may explain why, in this study, threatening others through cell phone messages was the least-reported behaviour.

6.3.1.1 *Types of cyber aggression – differences between genders*

The results of this study demonstrated that there were significant differences in types of behaviours between genders. These were threatening to hurt someone online and pretending to be someone online and acting in a mean or hurtful way. These two behaviours were more prevalent among male participants.

In traditional aggression and bullying, it was discovered that, compared to females, males are more likely to demonstrate direct aggressive behaviours (Archer, 2004; Gentile & Bushman, 2012). Indirect aggression is more typical of females than of males (Björkqvist, Österman et al., 1992; Crick, 1997). Chibbaro (2007) and Mason (2008) argued that cyberbullying behaviours could be categorised into direct and indirect types and that females are more likely to demonstrate indirect aggressive behaviours online (Anderson & Sturm, 2007), such as spreading rumours and excluding someone from a chat group. According to Huang and Chou (2010), threatening to hurt someone online only occurred between the victim and the aggressor in secret so that it would not attract the attention of peers, teachers and parents. Therefore, threatening to hurt someone online can be considered a more direct type of cyber aggression, which occurs more frequently among male students.

In comparison, pretending to be someone online and acting in a mean or hurtful way is a more indirect and typical behaviour (Francisco et al., 2015; Kokkinos et al., 2014), which was assumed to be more frequent among females. However, the results of this study demonstrate that this behaviour is more prevalent among male victims and

aggressors. This is consistent with findings by Arıcak (2009) among Turkish university students. He reported that the rate of pretending to be someone among male students was significantly higher than among female students. These findings align with findings from the study by Kokkinos et al. (2014) that support the fact that indirect behaviours were most commonly reported by university students and male university students were more likely to be victimised by, and perpetrate, cyber aggressive behaviours (Akbulut & Eristi, 2011). Therefore, pretending to be someone online and acting in a mean or hurtful way was reported more frequently by male university students in this study.

Despite the significant differences in threatening to hurt someone online and pretending to be someone online and acting in a mean or hurtful way in victimisation and perpetration between genders, it is noteworthy that these behaviours were reported the least in this study. In the most commonly reported online aggressive behaviours, male and female students had similar levels of involvement. This is partially consistent with the indication by students that both male and female students could be aggressive online. Therefore, when developing prevention and intervention programs for university students, equal attention should be paid to males and females.

6.3.1.2 ***Types of cyber aggression – differences between year levels***

The results of this study demonstrated significant differences in all types of victimisation between year levels. At the moderate level of victimisation, the general trend of most behaviours (except for mean or hurtful comments and pretending to be the victim online and acting in a mean or hurtful way) increases. It is noteworthy that this trend is not consistent with previously reported findings that the overall trend of moderate victimisation rates was steadily decreasing in all four year levels. This finding indicates that, other than the types listed in the questionnaire, there may be other types of cyber aggression. For example, six students reported other types of victimisation experiences; these were ugly memes and online shopping. Another possible explanation

is that some students defined cyber aggression differently to the definition in the questionnaire (i.e., ‘cyber aggression is intentional behaviour aimed at harming another person or persons through computers, cell phones, and other electronic devices, and perceived as aversive by the victim’ [Schoffstall & Cohen, 2011, p. 588]). In future studies, it is worth including a definition of cyber aggression that has been provided by Chinese university students and exploring further types of cyber aggression. This will improve understanding of this issue.

6.3.2 Digital environments of cyber aggression

This study discovered that WeChat and massive multiplayer online games were the two most common digital environments of victimisation and perpetration. The least-reported environment was Youku. Similar to how online aggressive behaviours may occur in a variety of forms, the digital environments of cyber aggression may also be diverse. They may include instant messaging boards, email, blogs, text or image messages, web pages, chatrooms, mobile phones, social networking sites and online games (Kowalski et al., 2014; Mishna et al., 2010; Srivastava et al., 2013). Interestingly, the survey included QQ, Weibo and other social networking sites. Participants rated WeChat as the most frequently used digital environment for cyber aggression.

These study results are partially confirmed by findings by Srivastava et al. (2013). They provided three examples of common platforms (i.e., Facebook, Myspace and Twitter) through which cyberbullying occurred. MacDonald and Roberts-Pittman (2010) examined the digital platforms of victimisation among American college students and discovered that social networking sites were the most commonly used medium for cyberbullying. MacDonald and Roberts-Pittman (2010) did not provide specific examples. Washington (2014) studied cyberbullying issues among American undergraduate students and indicated that Facebook and Twitter, together with other similar platforms, were used for perpetration. Srivastava et al. (2013) explained that, in

Australia, Facebook, Myspace and Twitter are the most popular social networking platforms and, with the development of 3G technology and easy access to digital devices, cyberbullying occurs regularly through this media. This is a similar situation in China. As previously explained, access to social networking sites such as WeChat is easy. Therefore, it was rated the most common digital environment of cyber aggression.

Another frequently used environment of cyber aggression is massive multiplayer online games, in which players work together to complete tasks and advance their characters (Ducheneaut, Yee, Nickell & Moore, 2006; Williams, Yee & Caplan, 2008). These games involve social interactions among players (Shen & Chen, 2015). In China, massive multiplayer online games have increased in popularity in recent years. Studies have indicated that the more time young people spend on social media, the more likely it becomes that they will be exposed to, and perpetrate, cyber aggression (Balakrishnan, 2015; Floros et al., 2013; Kumazaki et al., 2011; Leung & Lee, 2012). This argument may also be applied to massive multiplayer online games among Chinese tertiary students. As they spend more time playing games online, the likelihood of them becoming involved in cyber aggression increases.

6.3.2.1 ***Environments of cyber aggression – differences between genders***

The data analysis demonstrated significant differences in the environments of Weibo, massive multiplayer online games and Xbox, PS4, PSV, 3DSLL or similar devices for both cyber aggression victimisation and perpetration between genders. WeChat and massive multiplayer online games were the two most commonly reported digital environments of cyber aggression. Weibo is a similar social networking app to WeChat and became popular a few years earlier. Xbox, PS4, PSV, 3DSLL or similar devices is closely related to online games.

Female students were more likely to be victimised by, and perpetrate, cyber aggression in Weibo than males. This contradicts the findings that male students’ overall rates of cyber aggression involvement were higher than that of female students. This may be explained by previous studies. Balakrishnan (2015) reported that, in a sample of Malaysian young people, females engaged in more online activities than males on social communication platforms. For example, on Facebook, females had more friends than males (Balakrishnan, Shamim & Qazi, 2013; Pempek, Yermolayeva & Calvert, 2009). Females tended to make friends with both males and females and maintain relationships with others on Facebook (Wang, Moon, Kwon, Evans & Stefanone, 2010). Further, young people post their thoughts, photos and videos and receive comments on Facebook to earn popularity and seek attention (Balakrishnan et al., 2013). Dyches and Mayeux (2015) indicated that seeking popularity is positively associated with indirect aggressive behaviours. Ojanen and Findley-Van Nostrand (2014) suggested that there are positive correlations between indirect aggression and achieving social status goals among females. If cyber aggression is considered a form of indirect aggression (Barlett & Coyne, 2014), it is understandable that female students had higher rates of involvement, particularly in social networking related environments, such as Weibo and WeChat.

In contrast, male students had higher rates of cyber aggression in online gaming environments. This may be explained by the role of gender in online games. Morris, Davis and Davis (2003) argued that males and females adopt and accept information technologies differently (Venkatesh, Morris & Ackerman, 2000). These differences influence their attitudes towards online games (Liu, 2016). For example, males were found to be more goal and achievement-oriented than females. Females care about relationships and other people’s feelings more than males (Sánchez-Franco, 2006; Yee, 2006). In addition, compared to males, females generally feel less competent and

comfortable with computers and have a lower level of information technology skills (Sánchez-Franco, Ramos & Velicia, 2009; Schumacher & Morahan-Martin, 2001). This may explain that males are more likely to play online games than females. For example, Dong-Jenn and Yi-Kun (2011) found that among a sample of Taiwanese college students, males reported higher rates of playing online games than female students. Spending more time in online gaming environments may leave male students more possibility of being victimised by, and perpetrating, cyber aggression.

As previously argued, equal attention should be paid to male and female university students' cyber aggression involvement in future research and intervention development. However, the differences in the digital environments of cyber aggression between genders indicate that different focuses should be directed to male and female students.

6.3.2.2 *Environment of cyber aggression – differences between year levels*

The data analysis demonstrated that there were significant differences in the digital environments of cyber aggression victimisation between year levels. It is interesting to discover that, at the moderate level of cyber victimisation, the trend of most digital environments increased. This is inconsistent with the overall trend of moderate levels of cyber victimisation, which decreased steadily from first year through to fourth year. This finding indicates that, other than the digital environments included in the questionnaire, there may be others in the students' experiences of cyber victimisation. Therefore, there is a need to explore typical digital environments of cyber aggression involvement among Chinese university students to enhance understanding of this issue.

6.3.3 Chinese university students' experiences of cyber aggression

The second part of this study discovered that Chinese university students’ experiences of cyber aggression have three features. First, there is no time and space limitation on cyber aggression. Second, there are various types of aggressive behaviours. Third, the roles of victim and aggressor are interrelated.

6.3.3.1 *No time and space limitation on cyber aggression*

This is due, in part, to the dependence of young people on digital devices and communication technology (Balakrishnan et al., 2013). Nowadays, smartphones, wi-fi and 4G technology are widely used among young people. Raskauskas and Stoltz (2007) argued that easy access to electronic devices and ICT might lead to bullying behaviour through sending text-based messages. Ybarra and Mitchell (2004b) reported that intense use of the internet was an essential factor of online aggression. For example, some online social networking environments were identified as the forum in which young people were exposed to cyberbullying (Mesch, 2009). Although these findings were from Western contexts, they are consistent with the Chinese university students’ description of their cyber aggression experiences in this study. For example, some students used ‘anytime’, ‘all the time’, ‘every day’ and ‘everywhere’ to describe the occurrence of cyber aggressive behaviours. This is consistent with the results from Study 1 that cyber aggression is pervasive among Chinese tertiary students; more than 70% of participants were victimised by cyber aggression and more than 60% perpetrated cyber aggression in the previous thirty days. The above findings indicate that Chinese university students are not exempt from cyber aggression, which was mainly investigated by Western researchers. Therefore, further studies of this issue among emerging adults in the Chinese cultural context are urgently required.

6.3.3.2 *Variety of types of cyber aggressive behaviours*

The findings from Study 2, that spreading rumours, gossiping about others, posting mean pictures and comments, name-calling and online flaming were the most

commonly reported forms of cyber aggression, echo those found by Fernandes et al. (2015), Singh and Sonkar (2013), Kokkinos et al. (2014), Grigg (2012), MacDonald and Roberts-Pittman (2010) and Mishna et al. (2010). This indicates that, although this study was conducted in mainland China, online aggressive behaviours are common among young people in different cultural contexts.

It is interesting to notice that a type of cyber aggression reported by Chinese tertiary students was seldom found in previous cyber aggression research; that is, HFS. The term originated in China, referring to the acts of searching, retrieving and disclosing information on online platforms in a joint manner by mass internet users (Chen & Sharma, 2011). Zhu and Hu (2017) argued that, although HFS helps people retrieve information that is not accessible from formal search engines, HFS can also cause individual privacy violation, rumour spreading and emotional hurt. Many HFS participants work collaboratively to mine individual’s private information (e.g., full name, date of birth, contact numbers and home address) (Zhu & Hu, 2017). Originally, HFS was used to punish an individual. For example, if a person’s behaviour was uncivilised in a public space and caused discomfort to others, someone may search and expose their private information. As a result, the wrongdoer would suffer from high levels of psychological stress (Zhang & Gao, 2016). The unwilling exposure of the wrongdoer’s personal details brings them to social shame, criticism and harassment (Cheung, 2009; Zhang & Gao, 2016). Some victims of HFS even change jobs or move to a new city to escape from the stress. However, in most HFS cases, the perpetrators argue that they are upholding justice and maintaining traditional Chinese virtues. It is not only the term that sounds horrifying, but the threat to the individual’s mental health could be devastating (Zhang & Gao, 2016). The findings from Study 2 demonstrated that Chinese university students’ stories of HFS were consistent with the previous research findings. For example, some students maintained that HFS, as an aggressive

behaviour, is hurtful to the victim and those around them. Since HFS has appeared, it has caused intense controversy in China. Now, HFS is known in China as a pervasive internet phenomenon.

Despite its pervasiveness in China, HFS among young people has not yet been investigated by researchers. Therefore, further investigate of HFS should be conducted in China to discover whether this is a typical form of cyber aggression in the Chinese cultural context. Conversely, Western researchers should be made aware of this type of cyber aggression and studies should be conducted to discover whether this behaviour also exists in Western society.

6.3.3.3 *Interrelated roles of victim and aggressor*

In Study 2, it was discovered that there was considerable overlap between the roles of victim and aggressor. This is consistent with the findings of Kowalski and Limber (2007) and Werner, Bumpus and Rock (2010). Law, Shapka, Hymel, Olson and Waterhouse (2012) argued that it is difficult to distinguish between victim and aggressor. With a large sample of adolescents, Law et al. (2012) discovered that young people can be both perpetrators and victims of aggressive behaviour in cyberspace and there is only a vague distinction between the two roles. This finding echoes the results from Study 1—that there was significant correlation between cyber aggression victimisation and perpetration. This indicates that targeting others in cyberspace may increase the possibility of being targeted (Arıcak, 2009) and victims may react aggressively to the original perpetrator (Kokkinos et al., 2014; Schenk et al., 2013). In future studies, the overlap of victims and aggressors should be investigated further to explore the issue of double roles in cyber aggression engagement among Chinese young people.

Conversely, this finding may also indicate that students are not adequately equipped with strategies to respond to cyber aggression (this will be discussed in greater

detail in Section 6.5). For example, if a student who was targeted by someone online could only use the strategy of ‘fighting back’, this may turn the victim into an aggressor and may possibly cause further attack. Therefore, educational programs are required to help young people develop effective strategies to respond to cyber aggression.

6.4 Effects of Cyber Aggression

The effects of cyber aggression reported by Chinese university students were mainly negative and affected their emotions, personality, social relationships and activities and physical well-being. However, it is interesting to notice that one positive effect was reported: self-reflection and improvement.

6.4.1 Negative effects

The findings of Study 2—that cyber aggression had negative effects on students’ emotions, personality, social relationships and activities and physical well-being—echo findings by Akbulut and Eristi (2011), Beran et al. (2012), Campbell et al. (2012), Kowalski and Limber (2013), Schenk and Fremouw (2012), Schenk et al. (2013) and Washington (2015). Further, as indicated by the participants, the negative effects of cyber aggression may be long-lasting. Therefore, further studies of cyber aggression among Chinese young people are required to provide additional information for the development of prevention and intervention programs so that young people can be protected from harm from cyber aggression.

6.4.2 Self-reflection and improvement

It is noteworthy that a positive effect of cyber aggression was discovered; that is, self-reflection and improvement. This means that if the victim had first done something wrong to cause their attack, they could use the experience as an opportunity to self-reflect and amend their behaviour. For a cyber aggressor, perpetration should be considered ‘a good lesson’ to learn how hurtful cyber aggression can be. Bystanders can learn how to address troubles from others’ unpleasant experiences. No similar findings have been reported in other cultural contexts. It is presumed that students’ taking cyber

aggression as opportunities to self-reflect and improve is influenced by teaching from their parents of self-discipline and criticism—related to Confucian teachings. This will be discussed further in Section 6.5.2.

Despite this one positive effect, in general, cyber aggression can be detrimental to young people and can be even more harmful than traditional bullying (Campbell et al., 2012). Further, the negative effects of cyber aggression on psychological well-being and academic performance do not only occur in adolescents, but also in emerging adults (Beran et al., 2012). University students are at a stage of life when they are learning to live independently, study in a new setting and shoulder greater responsibilities. In further research, it is worth exploring whether there are any especially harmful effects of cyber aggression on this population, so that more effective prevention and intervention programs can be customised for Chinese students.

6.5 Responses of Students to Cyber Aggression and the Influence of their Parents

6.5.1 Responses of students

The response strategies reported by Chinese students were limited. They included ignoring the attack or doing nothing, fighting back, talking to friends or classmates and talking to their parents. The first strategy of avoidance is consistent with findings by Hoff and Mitchell (2009) of a sample of US undergraduates. The students believed they did not have to do anything about the bullying and thought it would simply stop. Some participants in this study suggested an aggressive response—fighting back. Similar findings were reported by Walrave and Heirman (2011) in a sample of Belgian adolescents. This strategy partially explains previously discussed characteristics of cyber aggression among Chinese tertiary students—the correlated roles of victim and aggressor.

Another strategy was talking to someone. Compared to talking to parents, Chinese students preferred to talk to friends or classmates, as they were able to empathise, provide emotional support and give suggestions on how to respond. Similarly, Faucher et al. (2014) reported that Canadian university students preferred to tell friends about cyberbullying rather than parents or school staff. However, some students indicated that they had spoken to their parents about their unpleasant experiences. Among these students, not many received supportive or helpful ideas. Some were disappointed by the feedback from their parents and decided to never talk to them about cyber aggression again. The disappointed students explained that their parents did not take their experiences seriously and perceived it as someone joking around. This is in accordance with findings from Slonje and Smith (2008). With a sample of Swedish school students aged between 12 and 20, they discovered that young people did not believe adults were aware of cyberbullying. Bauman (2010) reported that American youth did not tell their parents about their negative online experiences. Baek and Bullock (2014) reviewed previous cyberbullying studies and discussed prevention and intervention strategies from an international perspective. They indicated that cyber victims are unwilling to share their experiences with their parents. Similarly, Slonje et al. (2013) reviewed previous research findings about cyberbullying and summarised that, when facing cyberbullying, not many young people spoke to others about their experiences. If they sought help from someone, they would prefer to reach out to their friends rather than their parents or teachers.

However, Li (2008) reported, with a sample of Chinese youth, that nearly 70% of participants had spoken to adults about their cyberbullying experiences and more than 70% believed school staff could address the problem. Li suggested that this finding was due to the Chinese cultural value that young people tend have greater respect for adults and the authority of teachers. This was reflected in the argument by Ho (1989)

that, in China, obedience to adults is emphasised in child training. ‘Controlling’ is an important concept in the school and at home. This practice may affect Chinese young people’s formation of personality. For example, Lau (1996) argued that training young people to obey adults may consolidate the endorsement of authoritarianism and collectivism. Under the control of adults, children struggle for a balance between autonomy and authority dependency. Lau indicated that the psychological effects on young people of adults’ control and obedience training may either lead to reinforced dependence on authority or rebellion to achieve autonomy.

Further, Cassidy, Jackson and Brown (2009) suggested that the willingness of young people to speak to parents or school teachers about cyberbullying decreased with age. It is understandable that, after young people move to university, they spend less time with their parents and more time with their schoolmates and teachers. Therefore, they are less likely to talk about their online experiences with their parents. Further studies are required to investigate the roles of parents and universities in protecting emerging adults from cyber aggression and consider how these parties could collaborate for prevention and intervention. Conversely, as students are not well-equipped with effective approaches to respond to cyber aggression (Agatston et al., 2007; Hoff & Mitchell, 2009), it is important to provide educational programs to teach them how to respond to hurtful online situations.

6.5.2 Responses of parents

Although talking to parents was not the first choice of students facing cyber aggression, students indicated that their parents influenced their responses to cyber aggression to some level. The responses of parents included dismissing the issue, discussing self-discipline and criticism, encouraging harmonious and peaceful interpersonal relationships and suggesting using the internet and smartphones less.

Dismissing their experiences is an important reason why students were unwilling to talk to their parents about their experiences. Some participants were disappointed that their parents did not take such negative online experiences seriously and did not attempt to empathise.

The concepts of self-discipline and self-criticism and harmonious and peaceful interpersonal relationships are heavily emphasised in Chinese culture. Compared to individualist cultures, collectivist cultures attach great value to emotional and behavioural self-regulation, control and cooperation (Chen, 2012). The cultural differences between Chinese and Western adolescents in personality traits, moral development, social behaviour and peer relationships have been examined in previous studies. For example, it has been reported that Chinese youth demonstrate more prosocial and less disruptive behaviours (Chen, Rubin, Li & Li, 1999; Keller, Edelstein, Schmid, Fang & Fang, 1998; Orlick, Zhou & Partington, 1990). In a cross-cultural study of children’s compliance, Chen et al. (2003) discovered that, compared to Canadian parents, Chinese parents had higher expectations for their children to maintain self-control in social interactions. Therefore, it is plausible that the influence of parents is important in young people’s reactivity to social situations. Further, in Chinese society, great importance is attached to interdependence and interpersonal harmony (Huang et al., 2013). Hence, it is well-reasoned that Chinese parents expect their children to maintain harmonious relationships with others and avoid conflict.

It is important to note that modern Chinese young people are not living in a pure collectivist society. Kolstad and Gjesvik (2014) argued that China has been undergoing a rapid transition from a traditional collectivist society towards a market-oriented society. More individualistic values have been introduced into Chinese society. Since the implementation of the ‘open-door policy’ in the 1970s, the effect of the Western world has influenced the general public. It is likely that this effect also influences young

people. Therefore, it is unsurprising that some students thought their parents’ teaching about self-discipline and harmonious social relationships was ‘not helpful at all!’ (year 3, female). Although some parents also gave their children other advice, such as ‘using the internet and smartphone less’, students did not think this was helpful either. The reactions of students to the influence of their parents leaves researchers and educators with a considerable question. In the digital age, in Chinese society, in which traditional Chinese culture and Western values coexist, what can parents do to support their children who are in early adulthood and facing cyber aggression?

6.6 Limitations and Future Directions

This study has several limitations. Although the participants were from different cities and provinces of mainland China, they were recruited from only one municipal university and their home city or province information were not collected. In future studies, more universities from different areas of China should be included to investigate whether and how the findings on cyber aggression among Chinese university students may differentiate according to environment. Further, including participants from a wider range of living areas may increase the heterogeneity of the sample and the generalisability of the findings.

The data were based on student self-reports and accounts. Therefore, the validity and reliability of the information provided by the students may be questionable (Dowling & Carey, 2013). In future studies, diverse data collection methods (e.g., peer reports and interviews with teachers and parents) should be used (Frisen, Hasselblad & Holmqvist, 2012).

Although the stimulus drawing for the semi-structured interview (see Chapter 3) represents a typical cyber aggression scenario, it is not gender neutral. Some interview participants noticed this and argued that male and female students could be equally aggressive online. In future studies, if stimulus drawing is applied, attention should be

paid to gender neutrality to minimise the influence of prior hypothesis bias of gender roles.

Although a specific cyber aggression definition was provided at the beginning of the questionnaire in Study 1, it is conceivable that some participants did not respond to the questions according to the provided definition, as in the interviews in Study 2, some participants described some behaviours of cyber aggression that did not align with the provided definition. Future studies should include the perspective of students to define cyber aggression so that the findings can present a more genuine picture of students’ involvement in cyber aggression.

Chapter 7: Conclusions

Despite its limitations, this study adds to the research on cyber aggressive behaviour. There is scant literature about the issue of cyber aggression among Chinese university students. On the whole, participants reported high rates of cyber aggression involvement, various explanations for online aggressive behaviour, multiple types, and environments, of cyber aggression, some effects (mainly negative) on the students, limited response strategies and the influence of their parents on how they develop responses to cyber aggression. These demonstrate that cyber aggression is an issue among Chinese university students that requires more attention and further investigation.

Although it is believed that collectivistic cultural values are related to cooperation, harmony and cohesion (Li et al., 2010; Schwartz, 1990) and contribute to suppressing aggressive behaviours (Wright et al., 2016), these views should not be taken as that which defines young people’s cyberspace interactions in a collectivistic culture. Additionally, there is continuity between cyber aggressive behaviours in secondary and post-secondary education (Faucher et al., 2014). Therefore, the risk of cyber aggression involvement among university students should not be underestimated. This study discovered that Chinese university students reported high rates of cyber aggression that was not limited by time or location. Further studies in a wider range of areas in China should be conducted to investigate whether this phenomenon is prevalent in China. Conversely, as young people depend heavily on digital devices and communication technology (Balakrishnan et al., 2013), prospective studies should be conducted to examine whether ease-of-access to electronic devices and ICT relates to young people’s cyber aggression victimisation and perpetration (Raskauskas & Stoltz, 2007).

This study discovered various explanations for cyber aggressive behaviour, which were related to factors internal to the aggressor, relationship problems and the effect of online anonymity and disinhibition. These findings concur with suggestions made by researchers such as Akbulut and Eristi (2011), Antoniadou and Kokkinos (2015) and Slonje et al. (2013). However this information was collected from interviews with a small sample. Future research may collect quantitative data and use inferential statistics to reveal the typical causes of cyber aggression among Chinese university students and develop theoretical frameworks to help explain the online behaviour of emerging adults.

It was discovered that male and female university students experience similar levels of cyber aggression victimisation and perpetration in the two most commonly reported types. However, in the online gaming environment, male students experienced higher levels of cyber aggression. In contrast, females were more likely to become involved in cyber aggression in social networking apps. Further, a unique type of cyber aggression was discovered among Chinese university students; that is, HFS. It is worth conducting further studies to explore whether these findings about types and digital environments can be applied to other groups of populations and areas in China and investigate HFS in terms of prevalence, motivations and effects.

Despite one positive effect of cyber aggression reported by this study, on the whole, cyber aggression is detrimental to Chinese university students and the negative effects can be long-lasting. Further investigation is required to inform prospective educational programs to assist emerging adults with regulating their behaviours in cyberspace. Regulations should be legislated to supervise and constrain the online behaviours of young adults.

This study discovered that Chinese university students did not have adequate strategies for responding to cyber aggression and parents did not meaningfully

contribute to the behaviours of students. However, traditional Chinese cultural values still played a role in the ways in which parents and students reacted to cyber aggression.

The above findings suggest a way forward; that intervention studies are required. A survey of prevalence, motivations, types and digital environments of cyber aggression would need to be conducted in more universities in different areas of China. All three parties related to this issue—the university, parents and students—would be required to join the intervention plan. The findings of this study could be taken into consideration. For example, male and female students demonstrated different levels of aggressiveness in different digital environments and Chinese cultural values could be an intervening factor to prevent young people from becoming involved in cyber aggression.

To summarise, cyber aggression is not an issue restricted to secondary school students and Western countries. It is a problem extending to emerging adults in China. More research is required to bridge the gap between advances in technology and the insufficiency of studies on cyber aggression.

Appendices

Appendix A Cyber Aggression Survey

Flinders UNIVERSITY

Cyber Aggression Survey

※ **DO NOT** put your name on this survey.

※ Your individual responses will be kept **ANONYMOUS** (no one will know who completed this questionnaire).

※ Please complete the following questions as **HONESTLY** as you can.

※ Instructions: To answer the following questions please fill in (●) the circle using blue or black pen. As shown in the example below.

Example:

Rate the extent to which you agree or disagree with the following statements:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. I like swimming.	①	②	●	④	⑤

Cyber aggression is intentional behaviour aimed at harming another person or persons through the use of computers, cell phones, and other electronic devices, and perceived as aversive by the victim.

Please answer the following questions.

In the last 30 days, how often have you experienced the following?	Never	Less than once a week	About once a week	2-3 times a week	Most days of the week	Every day
1. I have seen other people being victimized through cyber aggression.	①	②	③	④	⑤	⑥
2. I have been victimized by cyber aggression.	①	②	③	④	⑤	⑥

3. In the last 30 days, how often have you been victimized in these ways?	Never	Less than once a week	About once a week	2-3 times a week	Most days of the week	Every day
3-1 Someone posted mean or hurtful comments about me online.	①	②	③	④	⑤	⑥
3-2 Someone posted a mean or hurtful picture of me online.	①	②	③	④	⑤	⑥
3-3 Someone posted a mean or hurtful video of me online.	①	②	③	④	⑤	⑥
3-4 Someone created a mean or hurtful web page about me.	①	②	③	④	⑤	⑥
3-5 Someone spread rumours about me online.	①	②	③	④	⑤	⑥
3-6 Someone threatened to hurt me through a cell phone text message.	①	②	③	④	⑤	⑥
3-7 Someone threatened to hurt me online.	①	②	③	④	⑤	⑥
3-8 Someone pretended to be me online and acted in a way that was mean or hurtful to me.	①	②	③	④	⑤	⑥
3-9 Someone hurt me in other ways not listed above. Please specify:	_____					
	_____					

4. In the last 30 days, how often have you been victimized through the following digital environments?	**Never**	**Less than once a week**	**About once a week**	**2-3 times a week**	**Most days of the week**	**Every day**
4-1 Chat room	①	②	③	④	⑤	⑥
4-2 Email	①	②	③	④	⑤	⑥
4-3 Computer instant messages	①	②	③	④	⑤	⑥
4-4 Cell phone text messages	①	②	③	④	⑤	⑥
4-5 Cell phone	①	②	③	④	⑤	⑥
4-6 PictureMail or VideoMail	①	②	③	④	⑤	⑥
4-7 WeChat	①	②	③	④	⑤	⑥
4-8 Social networking web site	①	②	③	④	⑤	⑥
4-9 Weibo	①	②	③	④	⑤	⑥
4-10 Youku	①	②	③	④	⑤	⑥
4-11 QQ	①	②	③	④	⑤	⑥
4-12 While playing a massive multiplayer online game such as League of Legends, Fantasy Westward Journey, World of Warcraft, or The Legendary Swordsman	①	②	③	④	⑤	⑥
4-13 While playing online with Xbox, PS4, PSV, 3DSLL or similar device	①	②	③	④	⑤	⑥
4-14 Through other digital environments not listed above. Please specify:	_____					

	Never	Less than once a week	About once a week	2-3 times a week	Most days of the week	Every day
5. In the last 30 days, how often have you targeted others in digital environments.	①	②	③	④	⑤	⑥

6. In the last 30 days, how often have you targeted others in these ways:	Never	Less than once a week	About once a week	2-3 times a week	Most days of the week	Every day
6-1 I posted mean or hurtful comments about someone online.	①	②	③	④	⑤	⑥
6-2 I posted a mean or hurtful picture of someone online.	①	②	③	④	⑤	⑥
6-3 I posted a mean or hurtful video of someone online.	①	②	③	④	⑤	⑥
6-4 I spread rumours about someone online.	①	②	③	④	⑤	⑥
6-5 I threatened to hurt someone online.	①	②	③	④	⑤	⑥
6-6 I threatened to hurt someone through a cell phone text message.	①	②	③	④	⑤	⑥
6-7 I created a mean or hurtful web page about someone.	①	②	③	④	⑤	⑥
6-8 I pretended to be someone else online and acted in a way that was mean or hurtful to them.	①	②	③	④	⑤	⑥
6-9 I have targeted others in other ways not listed above. Please specify:	_____					
	_____					

7. In the last 30 days, how often have you targeted others through the following online environments:	**Never**	**Less than once a week**	**About once a week**	**2-3 times a week**	**Most days of the week**	**Every day**
7-1 Chat room	①	②	③	④	⑤	⑥
7-2 Email	①	②	③	④	⑤	⑥
7-3 Computer instant messages	①	②	③	④	⑤	⑥
7-4 Cell phone text messages	①	②	③	④	⑤	⑥
7-5 Cell phone	①	②	③	④	⑤	⑥
7-6 PictureMail or VideoMail	①	②	③	④	⑤	⑥
7-7 WeChat	①	②	③	④	⑤	⑥
7-8 Social networking web site	①	②	③	④	⑤	⑥
7-9 Weibo	①	②	③	④	⑤	⑥
7-10 Youku	①	②	③	④	⑤	⑥
7-11 QQ	①	②	③	④	⑤	⑥
7-12 While playing a massive multiplayer online game such as League of Legends, Fantasy Westward Journey, World of Warcraft, or The Legendary Swordsman	①	②	③	④	⑤	⑥
7-13 While playing online with Xbox, PS4, PSV, 3DSLL or similar device	①	②	③	④	⑤	⑥
7-14 Through other digital environments not listed above. Please specify:	_____					

	Yes	No
8. Have you experienced cyber aggression in the past 30 days?	①	②

(If your answer is yes, please continue with question 9. If no, please go to question 11.)

☞☞☞

(go to question 11)

(continue with question 9)

9. In the last 30 days, who did you tell about your cyber-aggression experience?

(Fill in a circle for all that apply. You may fill in more than one circle.)

I did not tell anyone.	①
parents	②
teacher	③
counsellor	④
friend	⑤
I told someone else.	⑥ **Please specify:** _____ _____

10. Thinking about your most recent experience of cyber aggression, what did you feel when you were victimized?

O I didn't feel anything	O I was embarrassed
O I was sad	O I was humiliated
O I was angry	O Other (please specify): _____ _____
O I was scared	

Rate the extent to which you agree or disagree with the following statements:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
11. I have always told the truth.	①	②	③	④	⑤
12. I always share my snacks / treats.	①	②	③	④	⑤
13. I like everyone I meet.	①	②	③	④	⑤

Now, please answer the last two questions about offline aggression.

Offline Aggression is intentional behaviour aimed at harming another person or persons, and perceived as aversive by the victim in physical (e.g., kicking, punching), verbal (e.g., name calling, angry outbursts), and indirect (e.g., excluding someone from a group) ways.

How often in the last 30 days have you	Never	Less than once a week	About once a week	2-3 times a week	Most days of the week	Every day
14. seen other people being victimized by aggression offline.	①	②	③	④	⑤	⑥
15. been victimized by aggression offline.	①	②	③	④	⑤	⑥

16. Please use the space below to draw or write a story about your view of cyber aggression.

THANK YOU for participating in this important research!

Please provide some basic information about you by filling in the following blanks:

1. Grade level:

○ Year 1 ○ Year 2 ○ Year 3 ○ Year 4

2. Gender:

○ Male ○ Female ○ Other

3. Which degree program are you pursuing?

○ Bachelor of Arts ○ Bachelor of Science

4. Have you attended any educational program concerning on and offline harassment and aggression before?

○ Yes ○ No

If “yes”, please provide details of the program.

_____

_____

Intention to Participate in an Individual Interview

※ This is your opportunity to provide more information and feedback about what is going on in your cyberspace social interactions.

※ This document will be kept separate from the questionnaire, so that your individual responses in the previous survey will remain ANONYMOUS.

1. Are you willing to attend an individual interview after completing this survey?

○ Yes ○ No

If ***yes***, please provide the following information:

2. Contact information (email / WeChat address / QQ):

_____

3. Name:

4. Gender:

5. Grade level:

6. Which degree program are you pursuing?

○ Bachelor of Arts ○ Bachelor of Science

NOTE: Your willingness to participate in an interview is highly appreciated. Please note that given the limited time and the number of participants, there is a possibility that you may not be invited to an interview. Thank you for your understanding.

PLEASE REMOVE THIS PAGE AND TAKE IT WITH YOU

Thank you very much for your help with this important study!

Free Counselling Service

If, after completing this questionnaire, you have any concerns, you might like to talk to your parents or your teacher. Here is a FREE SERVICE that you might like to use:

Talk to your school counsellor:

Room: Teaching Building 112

Office Tel. Number: 62004526

Free external counselling service from Beijing Crisis Intervention Centre Counselling Hotline (24 hours service): 8008101117 or 96156

Appendix B Letter of Introduction

(for participants of individual interview)

Dear Student's name,

This letter is to introduce Xiaozhu Pan who is a Doctor of Education student in the School of Education at Flinders University. She will produce her student card, which carries a photograph, as proof of identity.

She is undertaking research leading to the production of a thesis on the subject of Cyber Aggression among Chinese University Students.

She would like to invite you to assist with this project by agreeing to be involved in an individual interview which covers certain aspects of this topic. No more than 30 minutes will be required for the individual interview.

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.

Since she intends to make a tape recording of the interview, she will seek your consent, on the attached form, to record the interview, to use the recording or a transcription in preparing the thesis, report or other publications, on condition that your name or identity is not revealed, and to make the recording available to other researchers on the same conditions.

Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on +61 08 82015878, fax on +61 08 82013184 or by e-mail (grace.skrzypiec@flinders.edu.au).

Thank you for your attention and assistance.

Yours sincerely

Dr. Grace Skrzypiec

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 7478). 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

Appendix C Information Sheet

(for participants of individual interview)

Title: “What’s Going On in My Cyber World?”

— A Mixed Methods Study of Chinese University Students’ Involvement in Cyber Aggression

Researcher:

Ms Xiaozhu Pan

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Supervisors:

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Description of the study:

This study is part of the project entitled “‘What’s Going On in My Cyber World?’ - A Mixed Methods Study of Chinese University Students’ Involvement in Cyber Aggression”. This project will investigate cyber aggression involvement among Chinese university students. This project is supported by Flinders University School of Education.

Purpose of the study:

The outcomes of this study, together with the participants’ and the researcher’s interpretation will:

- lead to a greater understanding of cyber aggression from various perspectives;
- assist educators in providing effective preventions and interventions by understanding cyber aggression through young people’s own interpretations;
- help both eastern and western researchers increase their understanding about cyber aggression from the cultural background of Confucianism in China.

What will I be asked to do?

You are invited to attend a one-on-one interview with a researcher who will ask you a few questions about your views about cyber aggression among Chinese university students. Participation is entirely voluntary. The interview will take about 30 minutes. The interview will be recorded using a digital voice recorder to help with examining the results. Once recorded, the interview will be transcribed (typed-up) and stored as a computer file. The record will be destroyed after the transcription.

What benefit will I gain from being involved in this study?

The sharing of your experiences will assist educators in providing effective preventions and interventions of cyber aggression so that you and other Chinese undergraduate students can be protected and have safer and healthier experience in the cyber space.

Will I be identifiable by being involved in this study?

We do not need your name and you will be anonymous. Once the interview has been typed-up and saved as a file, the voice file will then be destroyed. Any identifying information will be removed and the typed-up file stored on a password protected computer that only the supervisors will have access to. Your comments will not be linked directly to you. Any information that identifies you will not be transcribed, and in the transcripts of individual interview pseudonyms will be used for each participant. You can ask for any part of the interview to be omitted from the study.

Are there any risks or discomforts if I am involved?

1) You may worry that your responses in the individual interview may be known by other classmates and/or teachers.

How the researcher will manage: The individual interview will be conducted in an empty classroom. The participants will be seated at a corner so that they cannot be identified when anyone incidentally look into the room from the window or the door. Only the researcher has access to the record of the interview. In the transcripts of the individual interviews, pseudonyms will be used for each participant. Any information that identifies the participants will not be transcribed. The participants can ask for any part of the interview to be omitted from the study.

2) Given the nature of the survey and interview, you may experience emotional discomfort.

How the researcher will manage: The participants can stop the individual interview at any time if they experience discomfort. Given the nature of the project some participants could experience emotional discomfort. If any emotional discomfort is experienced please contact Ms. Zhang Xiaoju on +86-10-62004529, or via email: xiaoju@buu.edu.cn for support / counselling that may be accessed free of charge by all participants. Ms. Zhang provides internal counselling to students of Beijing Union University. You may also contact on 8008101117 or 96156 for free external counselling service from Beijing Crisis Intervention Center Counselling Hotline (24 hours service). If you have any concerns regarding anticipated or actual risks or discomforts, please raise them with the researcher.

How do I agree to participate?

Participation is voluntary. You may answer 'no comment' or no answer any question(s) and you are free to withdraw from the individual interview at any time without effect or consequences. A consent form accompanies this information sheet. If you agree to participate please read and sign the form. When we meet for the individual interview, you can send it back to me in person before the interview begins.

How will I receive feedback?

Feedback of this study will be provided during the period between 1st of July and 31st of December 2017 on the website of Beijing Union University. Every research participant will have access to it.

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 7478). 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

Appendix D Consent Form for Participation in Research

(by individual interview)

“What’s Going On in My Cyber World?” — A Mixed Methods Study of Chinese University Students’ Involvement in Cyber Aggression

I ……

being over the age of 18 years hereby consent to participate as requested in the individual interview for the research project on cyber aggression involvement among Chinese university students

1. I have read the information provided.
2. Details of procedures and any risks have been explained to my satisfaction.
3. I agree to audio recording of my information and participation.
4. I am aware that I should retain a copy of the Information Sheet and Consent Form for future reference.
5. I understand that:
    - I may not directly benefit from taking part in this research.
    - I am free to withdraw from the project at any time and am free to decline to answer particular questions.
    - While the information gained in this study will be published as explained, I will not be identified, and individual information will remain confidential.
    - I may ask that the recording be stopped at any time, and that I may withdraw at any time from the session or the research without disadvantage.
6. I agree/do not agree* to the tape/transcript* being made available to other researchers who are not members of this research team, but who are judged by the research team to be doing related research, on condition that my identity is not revealed. ** delete as appropriate*

Participant’s signature……Date……...

I certify that I have explained the study to the volunteer and consider that she/he understands what is involved and freely consents to participation.

Researcher’s name…….....

Researcher’s signature……..Date……

NB: Two signed copies should be obtained. The copy retained by the researcher may then be used for authorisation of Items 8 and 9, as appropriate

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