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Factors influencing young bystanders' decisions to intervene when witnessing cyber-aggression: A mixed methods exploration

Lisa Jodi Patterson
Edith Cowan University

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Factors Influencing Young Bystanders' Decisions to Intervene
When Witnessing Cyber-Aggression: A Mixed Methods
Exploration

Lisa Jodi Patterson

Bachelor of Psychology, Master of Psychology, Master of Public Health

A thesis submitted for the Degree of Doctor of Philosophy,
Department of Psychology, School of Arts and Humanities,
Edith Cowan University

October 2016

Statements

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1.5. Statement of contribution by others

Lisa Patterson

Alfred Allan

Professor Allan is Professor of Psychology in the School of Arts and Humanities, Edith Cowan University. He is my primary supervisor with whom I met once per week and he provided direction and comprehensive feedback on all the various publications and components of this thesis.

Alfred Allen

Donna Cross

Professor Cross is Principal Research Fellow at the Telethon Kids Institute, The University of Western Australia. She provided advice on initial research methodology and qualitative instrument design, and feedback on the final drafts of all the various publications and components of this thesis.

Donna Cross

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Also thank you to my parents, Deb and Ian, for believing in me always and caring for Ariel and Sage during school holidays when I had a deadline to meet.

Abstract

With the modern proliferation of computers, the Internet and smart phones, adolescents are at increased risk of cyber-aggression: negative, harmful behaviour expressed through electronic means and aimed at an individual (or group of individuals). Cyber-aggression can have serious consequences for the social, emotional and physical health of both targets and perpetrators. Some experts recommend tackling cyber-aggression using the strategies applied to face-to-face forms of aggression and bullying in school environments. One such strategy is to encourage peer bystanders to intervene in a positive way, which has been demonstrated to influence both the duration and severity of bullying episodes in the school environment. However, cyber-aggression has some unique characteristics that differentiate it from school-based aggression such as bullying, including the potential for perpetrator and bystander anonymity, the rapid dissemination of material, and the permanence of information placed on the Internet. It therefore remains uncertain whether these unique characteristics make the wholesale adoption of face-to-face school-based bystander interventions inappropriate for the online environment. This thesis sought to clarify the key influences on young adolescent bystanders' behaviour in the online environment to determine the extent to which it differs to that in the school environment.

An exploratory mixed methods design was undertaken involving three phases. Phase One adopted a qualitative, phenomenological approach using in-depth interviews with 24 adolescents in Grades 8–10, to explore their perception of young bystanders' attitudes and likely behaviours when witnessing cyber-aggression. In-depth vignette-based interviews were undertaken to explore two key research questions: (a) What factors do

young adolescents think influence bystanders' decisions to intervene when witnessing cyber-aggression? and (b) What do young adolescents perceive as differences in bystanders' responses to peer aggression in the online versus offline (school) environments? A thematic analysis identified key themes arising from Phase One. Firstly, bystander behaviours in the online environment are perceived to be influenced by the *relationship* of the bystander to the perpetrator and target, with bystanders more likely to take action when they have a close relationship with one of these individuals. Relationships also assisted online bystanders to understand the context of the situation, the perceived severity of the incident and therefore the need, or otherwise, to seek adult assistance. An important difference between online and school environments is that the online environment was perceived to be lacking in clearly established rules, authority figures and formal reporting mechanisms when witnessing aggressive behaviour. In addition, when witnessing online transgressions young adolescent bystanders are more hesitant and likely to ignore or avoid intervening. This is due, in part, to difficulties they experience trying to ascertain perpetrator intentions in the absence of non-verbal cues.

Phase Two sought to quantitatively confirm the themes arising from Phase One and involved the development of a quantitative measure and use of vignettes to manipulate major themes with a larger sample of adolescents in Grades 9–10 (n=292). Statistical analysis confirmed that bystander helping behaviours were more likely when the target was a close friend and when perceived harm to the target was high. Bystanders also reported being less likely to approach teachers or publicly defend targets in the online environment compared to the school environment. In addition, female bystanders were more likely to intervene, regardless of the online or school environment.

Phase Three evolved from the results of the first two phases and involved a systematic review to explore the role of moral disengagement in bystander behaviours, highlighting future research directions and implications for online interventions. In this phase of the research, existing literature describing bystanders' use of moral disengagement mechanisms when witnessing online and school bullying was appraised. A systematic review of empirical literature published over the last 25 years revealed a scarcity of research addressing bystanders' use of moral disengagement in face-to-face environments, and no studies examining this issue in the online environment when witnessing bullying within the search parameters. In school environments, moral disengagement was found to be more likely in boys and increasing with age; affected by individuals' histories, empathy, and self-efficacy; negatively associated with pro-social bystander behaviours; and highly influenced by socio-environmental factors, such as school culture.

Collectively the three phases suggest that programs designed to encourage positive online bystander behaviours can be similar to face-to-face approaches, but also need to compensate for some aspects unique to the online environment. Such programs should consider the impact of relationships on young people's active defending behaviours, their inhibitions surrounding public displays of bystander behaviour of any kind, and the lack of adult presence in the online environment. Strategies should sensitise adolescents to the potential harm of cyber-aggression and assist them to counter the tendency to morally disengage in the online environment. This might be achieved through programs designed to develop pro-social skills in online bystanders, to enable young people to intervene as peer supporters when they become aware of cyber-aggression.

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Chapter 1: Introduction

1.1. Background

In 2012–2013, almost every Australian household with children under 15 years of age (96%) had access to the Internet at home, with more than 4 out of 5 households (81%) reporting the Internet was accessed on a daily basis (Australian Bureau of Statistics, 2014). Online communications and technology play a fundamental role in the daily lives of young people, being central to their education, leisure activities, knowledge gathering, and in the maintenance of their social relationships (Ng, 2012; Campbell, 2005). More than four in five (82%) Australian teenagers aged 14–17 say the Internet is ‘very’ or ‘extremely’ important in their lives (Australian Communications and Media Authority, 2013). The online environment allows young people to explore their own identities, share information about themselves and express opinions to their friends and broader peer group (Mitchell & Ybarra, 2009). However, online communications also expose young people to a new range of risks, including cyber-aggression and cyber-bullying (Dempsey et al., 2011; Patchin & Hinduja, 2006; Tokunaga, 2010).

There is currently contention in the literature regarding the term ‘cyberbullying’ because some of the criteria used to define bullying are not easily transferable to the cyber domain, particularly concepts of power imbalance and repetition (Smith, del Barrio & Tokunaga, 2013; Bauman, Underwood & Card, 2013; Dooley, Pyzalski & Cross, 2009; Langos, 2012). ‘Cyber-aggression’, the preferred term used throughout this thesis, is defined by Bauman, Underwood and Card (2013) as “a behaviour aimed at harming another person

using electronic communications that is perceived as aversive by the target” (p. 41).^{*} This superordinate construct includes cyberbullying within its scope, but holds the advantage of not being constrained by the requirements for power imbalance and repetition. Furthermore, it is sufficiently flexible to encompass all forms of electronic communication, as the proliferation of smart phones in society makes the distinction between modes of message delivery (e.g., text, e-mail, chatroom, video blog) less relevant, as computers and mobile phones become more functionally equivalent (Monks, Robinson & Worlidge, 2012).

The overall prevalence of cyber-aggression is difficult to estimate for a number of reasons in addition to inconsistent definitions, such as the heterogeneity of study samples and differences in study methodologies and measures (Aboujaoude et al., 2015; Quirk & Campbell, 2014). A recent review by Aboujaoude and colleagues (2015) reported estimates of 4–72% of children and teens being affected by cyber-aggression; including both perpetration and victimisation rates. However, most estimates suggest around 20% of youth are targets of cyber-aggression, with rates peaking at 12–14 years (Aboujaoude et al., 2015; Tokunaga 2010; Quirk & Campbell 2014). These findings are consistent across a range of countries including Great Britain, Canada, Australia and the United States (Cross et al., 2015b; Aboujaoude et al., 2015; Quirk & Campbell, 2014; Cross et al., 2009). No definitive sex differences in cyber victimisation have been established (Tokunaga, 2010).

Cyber-aggression can harm the academic, physical, and social and emotional well-being of an individual being targeted. Young people who have become targets of online

^{*} Readers may note different definitions used in later chapters of this thesis. This was at the direction of editors of specific journals.

aggression are at risk of diminished academic performance, due to poorer concentration, increased school absences, increased truancy, and feeling unsafe at school (Tokunaga, 2010; Cross & Walker, 2013). Targets of cyber-aggression are also at risk of higher rates of emotional distress, social anxiety, insomnia, alexithymia, somatic symptoms such as headaches and abdominal pain, decreased self-esteem, and substance abuse (Aboujaoude et al., 2015; Cross & Walker, 2013; Tokunaga, 2010). Also of concern is the link between cyber-victimisation and higher levels of depression, suicidal ideation and suicide attempts (Ybarra & Mitchell, 2004b; Aboujaoude et al., 2015; Zych et al., 2015; Tokunaga, 2010). With the increasing integration of online technologies into the lives of children and young people it is expected that cyber-aggression will continue to be an ongoing concern for health professionals and educators (Aboujaoude et al., 2015).

Some researchers suggest countering cyber-aggression with strategies similar to those used to address aggression and bullying in the face-to-face environment (Campbell, 2005; Cross, Li, Smith & Monks, 2012; Perren et al., 2012; Slonje, Smith & Frisen, 2013). Early research on face-to-face, aggressive behaviours in the school environment (hereafter referred to as offline or school bullying) focussed exclusively on students who were victimised and those who perpetrated the aggression. However, more recent research has investigated bullying as a group phenomenon within a social context (Obermann, 2011; Thornberg et al., 2012; Zych et al., 2015). That is, there is increasing recognition that aggressive behaviours, such as bullying, do not simply involve the perpetrator and their target interacting in isolation but rather exist within a broader social environment that also includes peer bystanders, or witnesses, to these interactions (Obermann, 2011; Salmivalli, 2010). Peers are present in 85% of all bullying incidents (Salmivalli, 2010) and can either

positively or negatively influence the bullying dynamic. They have been found to influence both the prevalence and duration of traditional school bullying episodes (Zych et al., 2015; Obermann, 2011; Salmivalli, 2010; Salmivalli et al., 1996), and research suggests that bullying behaviours can stop within 10 seconds of peer intervention (Hawkins, Pepler & Craig, 2001). Positive bystander intervention can play a crucial role in reducing the incidence of bullying behaviours, as bystander behaviours influences the acceptability of bullying behaviours in the classroom setting (Salmivalli, Voeten and Poskiparta, 2011).

Peer support following bullying has also been found to improve psychosocial adjustment and lessen feelings of victimisation in targets of bullying (Salmivalli, 2010). For example, Sainio and colleagues (2011) found that targets of school bullying who were defended by peer(s) were better adjusted, had higher self-esteem, less depression and anxiety, and higher social status than students who were bullied but were not defended by peer(s), although the causal pathway of these associations has not been established. Further, peer bystanders who intervene in bullying episodes also report feeling more positive about themselves afterwards (Lodge & Frydenberg, 2005).

1.1.1. Theoretical approaches to bystander behaviour

Bystander behaviour first gained prominence in the 1960s. Latané and Darley investigated the complex processes influencing bystanders' behaviours during unfamiliar and ambiguous emergency situations (Latané & Darley, 1968; Darley & Latané, 1968; Latané & Nida, 1981). They proposed a five-step decision-making model describing the process that bystanders use to decide on a course of action (See Figure 1.1). The five-steps include:

1) noticing that something is wrong; 2) recognising that the situation requires intervention; 3) deciding their level of personal responsibility to provide assistance; 4) deciding on a course of action; and 5) assessing their capacity to execute the chosen intervention with their current skills and capacity (Latané & Darley, 1968; Latané & Nida, 1981; Stueve et al., 2006; Thornberg, 2010).



Figure 1.1. Bystander decision-making model

Note. Adapted from Latané and Darley (1968).

At each step of the decision-making process, bystanders may be deterred from intervening by a range of factors including a tendency to minimise the seriousness of the situation, deny responsibility (e.g., moral disengagement), and/or because they lack the knowledge or skills to intervene in an effective manner (Stueve et al., 2006). Latané and Darley also identified an inverse relationship between the likelihood of bystanders intervening and group size (Latané & Darley, 1968; Darley & Latané, 1968; Latané & Nida, 1981) and devised a theoretical framework of the psychological processes that can inhibit positive bystander action. These include *diffusion of responsibility* whereby perceived responsibility for intervening is diminished due to the presence of other bystanders; *pluralistic ignorance* whereby a bystander will undertake social comparison and interpret

the inaction of others as a cue that intervention is not necessary; and *audience inhibition* whereby a bystander will be reluctant to intervene for fear of negative social evaluation (Markey, 2000; Latané & Nida, 1981; Garcia, Weaver, Moskowitz & Darley, 2002).

Whilst initial studies focussed on the factors influencing bystanders to provide assistance in a range of emergency situations, psychologists and other researchers have broadened the scope of bystander research to a range of social situations, including bullying and aggressive behaviour (Schwartz & Gottlieb, 1980; Fischer et al., 2011; Thornberg, 2007; Bellmore, Ma, You & Hughes, 2012). With regard to bystander behaviours in school environments, research indicates that only a minority of peers actually intervene when witnessing a bullying episode (Craig & Pepler, 1997; Craig, Pepler & Atlas, 2000; Thornberg, 2007). Therefore, research has been undertaken to better understand the factors that influence bystander behaviours when witnessing aggression in school environments (Salmivalli, 2010; Bellmore et al., 2012; Cappadocia et al., 2012; Thornberg et al., 2012; Salmivalli, 2014; Doramajian & Bukowski, 2015).

School-based aggression prevention programs now often include a bystander component to harness positive peer influences on bullying behaviours (Campbell, 2005; Kärnä, Voeten, Poskiparta, & Salmivalli, 2010; Porter & Smith-Adcock, 2011; Salmivalli et al., 2011). Such programs aim to encourage pro-social bystander action (e.g. comforting the target of bullying, asking the perpetrator to stop, or getting help from an adult) as well as to build young people's self-efficacy to intervene through active skill development (Polanin, Espelage & Piggott, 2012; Salmivalli, 2014).

Some researchers suggest traditional school-based bullying approaches can be adopted to tackle the issue of cyber-aggression and that peer bystander interventions have the potential to play a significant role in such interventions (Campbell, 2005; Cross, Li, Smith, & Monks, 2012; Lodge & Frydenberg, 2005). Two recent, large, randomised trials in Austria and Finland provided some evidence supporting this notion by examining the impact of school-based bullying interventions on the incidence of cyber-aggression (Grading, Yanagida, Strohmeier & Spiel, 2015; Williford et al., 2013). The Austrian study reported significant reductions in self-reported rates of cyber-aggression in a sample of students in Grades 5–7 (mean age = 11.7 years) (Grading, Yanagida, Strohmeier & Spiel, 2015). In Finland, however, reductions in self-reported cyber-victimisation were dependent on the age of the students, with reductions for younger students (Grades 4-6) but not for older students (Grades 7-9) (Williford et al., 2013). Taken together these studies suggest that school-based aggression prevention programs can reduce cyber-aggression—at least with younger students. However, the Finnish researchers pointed out that the role of bystanders in cyber-aggression remained unclear, as did the need to include content specifically tailored to the online environment (Williford et al., 2013).

Several authors have identified unique characteristics of the online environment that raise the question of whether cyber-aggression should be considered a unique phenomenon, requiring approaches beyond those provided in school-based interventions (see, e.g., Hinduja & Patchin, 2012; Menesini, 2012; Olweus, 2012a, 2012b; Smith, 2012). A number of key differences between bullying or aggression in the school and online environments have been identified. For example, the around-the-clock nature of online environments with constant and near-universal access means that, compared to traditional

bullying that generally does not infiltrate the home setting, cyber-aggression has few spatial and time constraints (Langos, 2012; Spears et al., 2009; Heirman & Walrave, 2008). Materials placed on the Internet can also remain online indefinitely, be viewed innumerable times and be seen by nearly anyone. In many instances, once a message, photograph or video has been sent, neither the sender nor the victim has control over its further transmission and propagation (Langos, 2012; Heirman & Walrave, 2008). The potential anonymity of cyber-aggression in the online environment also differentiates it from traditional bullying, where targets are in most cases aware of who is bullying (Brown, 2011; Heirman & Walrave, 2008). A study by Ybarra and Mitchell (2004) found that whilst 84% of perpetrators of cyber-aggression knew the identity of their targets, only 31% of targets knew the identity of their aggressor. Being unaware of the identity of a person bullying them can magnify feelings of fear and embarrassment in targets of cyber-aggression (Chi Lam & Frydenberg, 2009). Anonymity may also increase disinhibition in online communications such that cyber-aggression is more likely than face-to-face confrontations (Suler, 2004; Heirman & Walrave, 2008; Brown, 2011). Generational differences are also a major distinction, as children and adolescents have grown up with information and communication technologies and often have superior technical knowledge and skills to that of their parents and teachers. For this reason, children and adolescents can be hesitant to approach adults about cyber-aggression because of adults' general lack of appreciation of the importance of the cyber-environment in which they interact with peers and proclivity to over-react when told of incidents of cyber-aggression (Chi Lam & Frydenberg, 2009).

One important distinction between face-to-face and cyber-aggression that is yet to be explored is the influence of bystanders in the online environment. Latané and Darley's

(1968) bystander decision-making model predicts that some aspects of the online environment can uniquely influence on how bystanders behave. For instance, a lack of non-verbal cues in the online environment is likely to make it more difficult for bystanders to judge the context of cyber-aggression and impact on targets (Machackova et al., 2013; Barlinska, Szuster & Winiewski, 2013). Such considerations could directly impact Step 1 (noticing an event) and Step 2 (recognising the need for assistance) of the model. Lack of visual cues may mean bystanders also experience less empathy with targets, which has been identified as a predictor of bystander intervention (Machackova et al., 2013; Barlinska et al., 2013). At Step 3 of the model, the limited ability to gauge the number of other bystanders in the online environment might also facilitate *diffusion of responsibility* and *pluralistic ignorance*. Bystanders may overestimate the number of others witnessing an incident of cyber-aggression, resulting in them diffusing their assumed level of personal responsibility (Machackova et al., 2013). In some cases, cyber-aggression may even be perpetuated by anonymity: giving licence to bystanders to become active supporters of cyber-aggression as they feel deindividuated, disinhibited and have diminished responsibility for their online actions (Suler, 2004; Barlinska, Szuster & Winiewski, 2013).

Few studies have explored bystanders' perceptions and resulting behaviours when witnessing cyber-aggression. In two studies, Flemish researchers investigated the perspectives of 12–15 year olds on the role of the bystander in cyberbullying, via mixed-sex focus groups and surveys (DeSmet et al., 2014; Bastiaensens et al., 2014). They concluded that young bystanders' decisions to intervene when witnessing cyber-aggression are determined by perceived context, severity, bystander relationship to the parties involved and other bystanders, and the sex of those involved. However, the positive role bystanders

could play in cyber-aggression incidents is still not fully understood (Gradinger, Yanagida, Strohmeier & Spiel, 2015; Cross, Li, Smith & Monks, 2012; Campbell, 2005; Lodge & Frydenberg, 2005). Research associated with cyber-aggression that specifically examines the role of bystanders is still emerging (Allison & Bussey, 2016). Most current knowledge has been derived from incidental data collected when investigating the roles of perpetrator and target in incidents of cyber-aggression. While we now understand some of the factors that predict peer bystander behaviours when witnessing cyber-aggression, it remains far from clear whether the unique attributes of the online environment mean these differ substantially from those that might emerge in response to more traditional school-based peer aggression. This represents a clear gap in the research literature. Such information would better inform our understanding of how best to design interventions that harness the influence of the bystander in deterring or inhibiting cyber-aggression and, as some have argued, whether such interventions even need to consider the unique environment in which cyber-aggression operates.

1.2. Research Aims and Questions

The primary aim of the present research was to explore what influences young peoples' behaviours as bystanders when witnessing cyber-aggression. The secondary aim was to explore how these influences on young bystanders' behaviours differ when witnessing aggression in the online versus school environments. These aims were formalised into the following research questions:

Question 1: What factors do young adolescents think influence bystanders' decisions to intervene when witnessing cyber-aggression?

Question 2: What do young adolescents perceive as differences in bystanders' responses to peer aggression in the online versus offline (school) environments?

Question 3: What, if any, measurable differences exist between young bystanders' behaviours when witnessing online versus offline (school-based) aggression?

A supplementary research question was included at the end of the third study:

Question 4: What can be learnt from the moral disengagement literature regarding bystanders' decisions to intervene when witnessing cyber-aggression?

1.3. Research Strategy

1.3.1. Methodology

A mixed methods approach was judged to be the most appropriate to address the identified research questions. A two-stage exploratory, sequential design was adopted, as described by Creswell and Plano Clark (2011), to “generalise qualitative findings based on a few individuals... to a larger sample gathered” later (p.86). Thus the findings of an initial qualitative phase (Phase 1) were empirically tested during a second quantitative phase (Phase 2) (see

Figure 1.2).

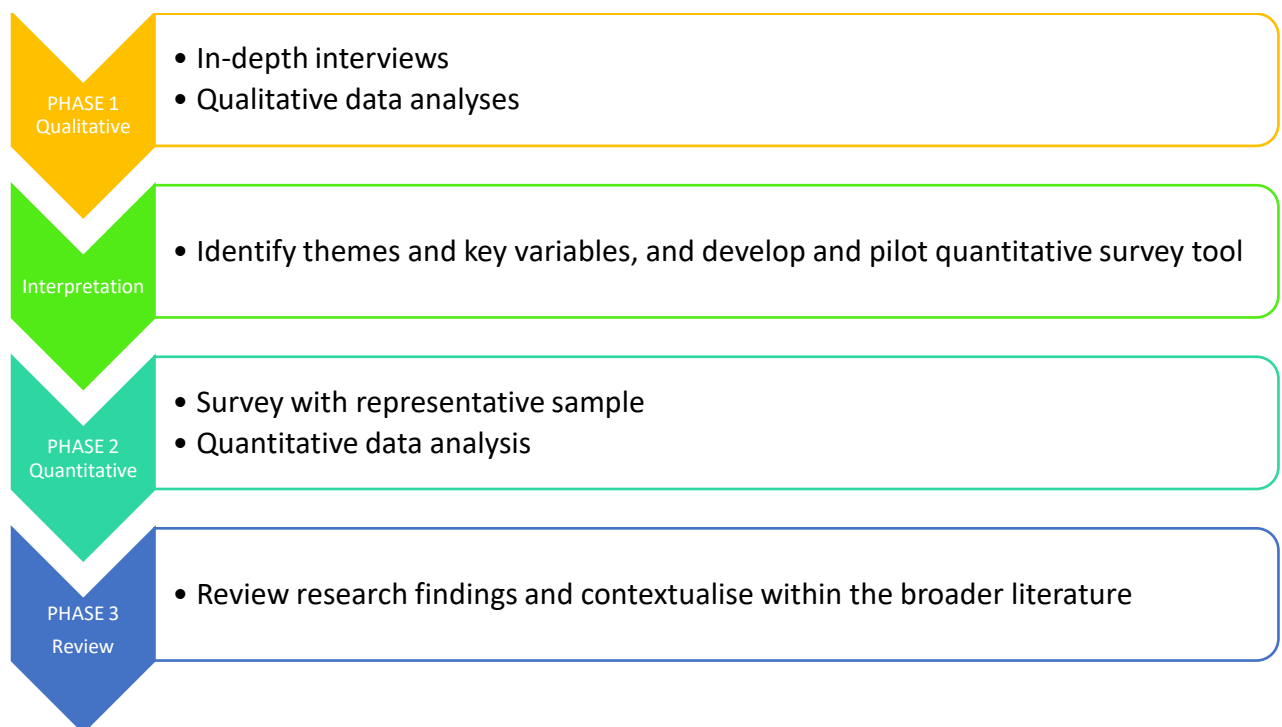


Figure 1.2. Overview of study process

For Phase 1, a phenomenological approach was judged suitable to provide insight into young adolescents' perceptions of factors influencing bystander behaviours during cyber-aggression. In-depth interviews were used to provide rich data in a flexible and sensitive manner, and are considered particularly appropriate for adolescents when the topic is emotionally charged, potentially embarrassing or highly sensitive in nature, and when there may be social norms or pressure to conform in a group discussion (Mishna & Van Wert, 2013; Harper, 2011; Tull & Hawkins, 1993). The interviews were conducted using bracketing in an attempt to minimise the personal experiences, knowledge and pre-conceptions of the interviewer affecting the interpretation of interviewees' responses (Gearing 2004). Bracketing involves researchers setting aside their knowledge and assumptions, acting non-judgementally and focussing on participants experiences from their viewpoints as fully as possible to uncover engaged, lived experiences (Sorsa, Kiikkala & Åstedt-Kurki, 2015; Gearing 2004).

Themes drawn from the in-depth interviews were used to develop a quantitative survey instrument. Key influences on bystander behaviours were identified: environment (school versus online); relationship of the bystander to the perpetrator and target (close friend, acquaintance, or stranger); and perceived severity of aggression (e.g., serious, hurtful, or funny). These influences were then manipulated via the use of vignettes; short stories describing the same incident but with interchangeable factors of environment. Building on the exploratory results, the survey instrument was pilot tested and then administered to a larger population of early adolescents to determine if the qualitative findings could be generalised to a broader adolescent population. Thus the quantitative phase built upon the themes of the qualitative phase.

Finally, the results of Phase 1 and 2 suggested that moral disengagement mechanisms were likely a powerful factor influencing bystander behaviours and would be a useful avenue for future research. Therefore a systematic review was undertaken to identify existing empirical research on young bystanders' use of moral disengagement mechanisms when witnessing bullying behaviours (Phase 3). The conclusions of this review were contextualised within the results of Phase 1 and 2 to inform a final set of program recommendations for increasing positive bystander behaviours during cyber-aggression, and identifying areas in need of further research.

1.3.2. Sampling

Existing research suggests that traditional bullying behaviours peak from ages 9–13 years and start declining during adolescence but no corresponding decrease occurs for cyber-aggression (Cross et al., 2009). In addition, access to information and communication technologies increases progressively with age (Australian Communications and Media Authority, 2009). As such, the present research targeted early adolescents aged 13–16 years who were more likely to have access to information and communication technologies than younger children and also to have witnessed instances of cyber-aggression. Adolescent participants were recruited from a convenience sample of non-government schools, thereby avoiding the lengthy bureaucratic processes required to conduct research at government schools. The limitations of this sampling method are discussed in Chapter 6.

1.3.3. Ethical considerations.

This research was conducted according to the guidelines of the National Statement on Ethical Conduct in Human Research, 2007. Ethics approval was given by the Edith Cowan University Human Research Ethics Committee (HREC). In addition, approval was sought from each school sector involved in the research (Catholic Education and Association of Independent Schools WA). Once ethics approval was received, the principals of Perth metropolitan schools were contacted via a written letter inviting their schools to participate in this research, detailing each school's requested contribution. A follow-up telephone call was made with each principal approximately one week later.

As this research involves adolescents, consent was sought from parents or guardians. For Phase One of the research and pilot testing for Phase 2, active parental and student consent was obtained. For Phase Two, active consent was sought from students' parents at government schools, as per government policy. At non-government schools, each school's preferred recruitment method was adopted. Three non-government schools asked for active parental consent and two for passive parental consent. The latter process involved at least two forms of communication with parents (e.g., written and online) through the school's usual parent communication channels, providing details of the research and proposed methodology and date of testing, and asking parents to indicate if they did *not* wish their child to participate.

Student consent was also required for all participants. For each phase, students were informed that participation was voluntary and that they could withdraw at any time, without prejudice. All efforts were taken to ensure the confidentiality of student responses. Non-participating students completed alternate activities, as assigned by their classroom teacher, while participating students assisted with the study. During each phase of the data collection students were provided with the contact details of the *Kids Help Line* service, a 24 hour confidential and anonymous telephone and online counselling service for children and young people.

1.3.4. Summary of Phase One: in-depth interviews.

Participants were students aged 13–16 years from Independent and Catholic schools within the Perth metropolitan area. Purposeful sampling was used to ensure participating students were equally stratified by sex (male, female) and Grade (8, 9 or 10). Interviews were conducted on school grounds during normal school teaching hours. A suitable room that ensured privacy for participants was identified with school staff prior to commencement of data collection. Each interview took approximately 40 minutes to complete, usually one standard school study period.

The phenomenological approach was adopted to develop a semi-structured interview protocol. This allowed key topics to be raised but still enabled participants to guide the direction of discussion, share their views and determine key areas. It is important that a warm and positive climate is created so participants feel comfortable to share in an

honest and open manner (Moustakas, 1994). Given the phenomenological nature of Phase 1, questions were exploratory and included participants' observations and perceptions of

- what influences their and other bystanders' behaviours when observing cyber-aggression;
- how bystanders' behaviours are the same and/or differ in the online versus school environments;
- how bystanders might respond differently when observing cyber-aggression depending on the different factors involved;
- the impact (if any) of anonymity on cyber-bystander behaviours; and
- group dynamics in the online environment and their impact on feeling responsible to act when witnessing cyber-aggression.

Using a laddering technique, questions were arranged so that benign, non-invasive questioning commenced discussions, gradually shifting over the course of the interview to deeper, more probing questions as rapport was established and participants became more engaged in the discussion. The aim of interviews was to elicit underlying reasons behind particular choices (Trocchia, 2007; Price, 2002). The attributes identified by participants were then explored in more detail to elicit why they were important or meaningful in the specified context (Tull & Hawkins, 1993).

Interviews were audio-taped and then transcribed verbatim in preparation for uploading to NVivo (v.9) for subsequent review and analysis. A thematic approach was adopted for analysis, as outlined by Braun and Clarke (2006), involving 6 stages:

1. Familiarisation with the data (transcribing, reading and re-reading the data).
2. Generating initial codes (across the whole data set).
3. Searching for themes (collating codes into potential themes).
4. Reviewing themes (generating a thematic 'map' of the analysis).
5. Defining and naming themes (generating clear definitions and names for each theme).
6. Producing a report (relating analysis back to research questions and literature).

1.3.5. Summary of Phase Two: quantitative survey tool.

The aim of Phase 2 was to use a representative sample to empirically verify the key influences on cyber-bystander behaviours identified in Phase One (relationships to perpetrator and target, sex and perceived severity of incident). The following steps took place, according to the guidelines of Creswell and Plano Clark (2011):

1. The central phenomenon of bystander responses was identified as the quantitative construct to be assessed.
2. The broad themes identified in Phase 1 served as the independent variables to be manipulated by varying the context within vignettes (comparing online to offline school environment).
3. The dependent variables were rating scales based upon responses identified in Phase 1.

Using this paradigm, an experimental design was conducted via an online survey administered to students aged 14–16 years. This method was adapted from that successfully used by Bellmore and colleagues (2012), who employed text-based vignettes

and measured the likelihood of participants, as bystanders, intervening when witnessing bullying behaviours in traditional school-based settings. The current study used the same methodology to examine the phenomenon in the cyber-environment.

The online survey tool systematically manipulated the themed vignettes to test empirically whether bystander behaviours varied with changes in the independent variables. A total of 18 combinations of independent variables were developed and one combination presented to each participant in a matched pair (i.e., one online and one school-based vignette). The presentation order of the school and online vignettes was randomised for each participant to counter ordering effects.

Participants responded to a 7-point Likert scale rating their likelihood of undertaking various bystander behaviours (e.g., defending and/or comforting the student being targeted, talking to a friend, telling a teacher or parent, publicly or privately asking the perpetrator to stop, ignoring the situation). The list of possible bystander behaviours was generated from interviews conducted during Phase 1 of the research and supplemented by examples provided in the existing bullying literature (Bauman, Cross & Walker, 2013; Patchin & Hinduja, 2006; Marsh et al., 2011; Trach, Hymel, Waterhouse & Neale, 2010).

Prior to implementation, the survey tool was reviewed by independent professionals in adolescent mental health and/or education with comments being integrated and re-circulated. Following expert consensus that the survey tool was appropriate, the instrument was pilot tested with nine adolescents meeting the target sample characteristics but who were not part of the sampling pool for the larger study. Adjustments were made to the

vignettes based on feedback from these adolescents before the wording of the instrument was finalised.

A power analysis using G*Power (v.3.1) was undertaken to determine an appropriate sample size for the study. Bellmore et al. (2012) reported an average eta-squared of $\eta^2=.056$ in their study. A power analysis suggested that for a 3 X 3 design (combinations of scenarios) with two repeated-measures (online vs offline) and conservatively assuming a correlation of 0.7 between repeated measures, a sample size of $n=243$, or 27 participants per cell, would have 81% power to detect a statistically significant difference at $\alpha=.05$.

1.3.6. Summary of Phase Three: systematic literature review.

Following an iterative approach, findings of the research at the completion of Phase 2 were reviewed and synthesised. Moral disengagement was identified as a factor consistently emerging from the previous two phases of the research to explain ignoring and a lack of defending by bystanders when witnessing cyber-aggression. As a result a systematic review was undertaken to identify existing research on young bystanders' use of a moral disengagement mechanism when witnessing bullying behaviours.

A systematic literature review was undertaken using the search engines PsycINFO, ScienceDirect, ERIC, ISI Web of Science, and Proquest. Papers were screened and the relevant results synthesized. The search yielded 41 unique papers, nine of direct relevance to the present investigation; all were related to school bullying and none to cyberbullying. These nine articles were reviewed independently by two researchers who made

independent summations of their findings and then met to compare and discuss these until consensus was reached for each paper. Consistent themes across the papers, implications for interventions targeting online bystanders as well as recommendations for future research on bystander moral disengagement in online environments were then formulated.

1.4. Contents of the Thesis

This thesis is presented as a series of four papers contributing to the research questions, three of which had been accepted for publication in peer-reviewed journals at the time of submission. Table 1.1 shows the relationship between each of the manuscripts to the study’s research questions.

Table 1.1 Study Objectives Addressed in Each Manuscript Forming Part of this Thesis

Chapter	Research	Publication Title	Publication	
	question		date	Journal
2	1	Adolescent perceptions of bystanders’ responses to cyberbullying	2015	New Media & Society
3	2	Adolescent bystanders’ perspectives of aggression in the online versus school environments	2016	Journal of Adolescence
4	3	Adolescent bystander behaviour in the school and online environments and the implications for interventions targeting cyberbullying	2016	Journal of School Violence
5	<i>Suppl. Question</i>	A review of moral disengagement mechanisms in young bystanders when witnessing bullying behaviour: implications for cyberbullying	Submitted 2016	Merrill Palmer Quarterly
	4			

Each manuscript is written in accordance with the style required for that particular journal, including the referencing, language and table structure and is included in the format and style in which it was published. Some necessary repetition occurred in the method sections of chapters 2 and 3 (papers 1 and 2) as each was prepared as a discrete manuscript for publication. For completeness, a full list of references cited throughout this research are included at the end of this thesis.

1.5. References

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Chapter 2: Adolescent perceptions of bystanders' responses to cyberbullying

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Contribution of authors

The candidate was responsible for the design of the research instruments, recruitment of participants, data collection and data analysis in this paper as well as writing the literature manuscript. Professor Allan assisted in the development of the structure, and clarity of, the manuscript. Professor Cross assisted with instrument design and review of the manuscript.

Relevance to Thesis

The paper in this chapter presents the results of in-depth interviews undertaken with young adolescents in regards to Research Question 1: What factors do young adolescents think influence bystanders' decisions to intervene when witnessing cyber-aggression? The paper outlines the experiences of young bystanders in the online environment and the main factors influencing their perceptions and behaviours when witnessing cyber-aggression. The outcomes of this paper informed the development of Phase Two of the research as outlined in Chapter 4 (peer-reviewed paper 3). The findings also inform Chapter 5 of this thesis.

2.1. Abstract

Cyberbullying can be harmful to adolescents using online technology, and one way of combating it may be to use interventions that have been successfully utilised for traditional bullying, such as encouraging peer bystander intervention. The online environment, however, differs notably from the environment in which traditional bullying takes place; raising questions about the suitability of transferring traditional bullying approaches to the cyber environment. This study explored the perceptions of, and key influences on, adolescent bystanders who witness cyberbullying. In all, 24 interviews were conducted with students aged 13–16 years. Relationships emerged as a key theme with participants believing that a bystander's relationship with both the perpetrator and the target influenced whether they would intervene when witnessing cyberbullying. Relationships also influenced their ability to understand the context of the situation, the perceived severity of the effect of the incident on the target and therefore the need, or otherwise, to seek help from adults.

Keywords

Adolescence, aggression, bullying, bystanders, cyberbullying, online, young people

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2.2. Introduction

Cyberbullying is a relatively new phenomenon associated with recent technological advances in human communication (Olweus, 2010; O'Moore, 2012; Shariff, 2009). Researchers differ as to how cyberbullying should be defined (see Bauman, Underwood & Card, 2013), but for the purposes of this article, we follow the frequently used definition of Smith et al. (2008) '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' (p. 376).

Internationally, researchers estimate the prevalence of cyberbullying to range anywhere from 13–80% (Bauman et al., 2013; Langos, 2012; Smith et al., 2013). Cyberbullying appears to occur less frequently than other forms of bullying (Cross et al., 2011) but new modes of cyberbullying are likely to emerge due to ongoing evolution of the online environment (Monks et al., 2012). While traditional bullying behaviours peak between the ages of 9–13 years, no corresponding decrease has been identified for cyberbullying (Cross et al., 2009). Cyberbullying is associated with serious negative outcomes for students, including lower self-esteem, poorer educational attainment and higher school absenteeism (Beran and Li, 2007; Bhat, 2008; Cross et al., 2011; Patchin and Hinduja, 2006, 2010). Children and adolescents may be particularly vulnerable to cyberbullying due to their reluctance to seek advice from adults, whom they feel do not appreciate the central role online communications play in their lives (Chi Lam and Frydenberg, 2009; Slonje and Smith, 2008). Targets of cyberbullying also experience high levels of fear and embarrassment when unaware of the identity of perpetrators (Chi Lam

and Frydenberg, 2009). Thus, the need for evidence-based interventions to prevent and manage cyberbullying is now widely recognised (Campbell, 2005; Pearce et al., 2011).

Pearce et al. (2011), investigating ways of preventing cyberbullying, see it as part of a larger pattern of bullying behaviour that occurs between young people face-to-face, often at school (hereafter referred to as *traditional* bullying). Bullying behaviour generally takes place within a broader social environment; more than 85% of traditional bullying incidents involve bystander witnesses (Craig et al., 2000; Craig and Pepler, 1997; Thornberg, 2007). These bystanders can be positive or negative influences (Craig et al., 2000; Obermann, 2011). Several researchers have investigated harnessing the positive influences to develop traditional bullying interventions (Gini et al., 2008b; Lodge and Frydenberg, 2005; Salmivalli, 2010; Salmivalli et al., 2011). Hawkins et al. (2001), for instance, demonstrated that bullying behaviours can cease within 10 seconds of bystander intervention. Targets of traditional bullying defended by peers also function better emotionally (Sainio et al., 2011; Salmivalli, 2010) and are victimised less afterwards than those receiving no peer support (Salmivalli, 2010). Bystanders who intervene constructively also benefit from their behaviour by feeling more positive about themselves afterwards (Lodge and Frydenberg, 2005).

Investigations of bystanders' decisions to intervene during traditional bullying episodes suggest *external* influences, such as whether the target is a friend, the presence of other bystanders and/or the perceived level of physical or psychological harm to the person being bullied (see Bellmore et al., 2012; Lodge and Frydenberg, 2005; Salmivalli, 2010; Thornberg et al., 2012). *Internal* factors have also been identified, including whether the bystander possesses high peer status, self-efficacy to intervene, empathy and/or cognitive

skills (see Bellmore et al., 2012; Gini et al., 2008b; Lodge and Frydenberg, 2005; Pöyhönen et al., 2010; Salmivalli, 2010; Thornberg et al., 2012).

Those who emphasise the similarities between traditional bullying and cyberbullying argue the same interventions could be used for both (e.g. Campbell, 2005; Cross et al., 2012; Olweus, 2012a, 2012b; Slonje et al., 2013; Tokunaga, 2010). Many, however, regard cyberbullying as a discrete phenomenon that differs notably from traditional bullying (see Baas et al., 2013; Hinduja and Patchin, 2012; Menesini, 2012; Smith, 2012). Cyberbullying, for instance, takes place in an environment with few spatial and time constraints making it very pervasive in the lives of young people (Langos, 2012; Spears et al., 2008). Online messages and images can be viewed innumerable times and exist indefinitely, making the potential magnitude of cyberbullying, and the intervention of bystanders, potentially much greater than for traditional bullying (Langos, 2012). Online anonymity may also inspire potential perpetrators of cyberbullying and intervention by bystanders – whether positive or negative – to ignore normal social scruples (Bryce and Fraser, 2013; Ybarra and Mitchell, 2004).

The online environment may also affect how bystanders operate in other ways. Online, bystanders lack non-verbal cues, making it more difficult to judge the context of an interaction and impact of this on targets (Barlińska et al., 2013; Macháčková et al., 2013). This can decrease empathy, a noted predictor of bystander behaviour (Barlińska et al., 2013; Macháčková et al., 2013)

The online environment can also allow individuals to diffuse their responsibility for positive bystander action as they transfer responsibility to unseen ‘others’ believed to also

be observing acts of cyberbullying (Macháčková et al., 2013). At a more extreme level, the online environment can result in bystanders actively supporting perpetrators as bystanders become deindividuated, disinhibited and feel diminished responsibility for their online actions (Barlińska et al., 2013; Suler, 2004). Finally, bystanders simply ignoring an incident can be interpreted as passive acceptance of the cyberbullying (Spears et al., 2008).

Recent research, however, suggests that bystanders' perceptions of online bullying may differ from their perceptions of traditional bullying. A Flemish group explored 12- to 15-year-olds' perspectives of the role of the bystander in cyberbullying via mixed-sex focus groups and surveys and concluded that bystanders' decisions to intervene online are determined by context, severity, relationship to other bystanders and sex of those involved (Bastiaensens et al., 2014; DeSmet et al., 2013). These findings suggest that it may be unwise to accept that bystander interventions that work with traditional bullying will work for cyberbullying.

Our study aims to further explore adolescents' perceptions of online and traditional bullying, but instead of using focus groups, as used by DeSmet et al. (2013), to give them a voice (see Spears and Kofoed, 2013) we used vignette-guided interviews. Adolescents often feel uncomfortable talking about personal and sensitive topics (Barter and Renold, 2000) and may experience social pressures in focus groups that can elicit social conformity, inhibition, and acceptance of dominant opinions – especially in mixed-sex groups (Heath et al., 2009; Stokes and Bergin, 2006). Individual interviews allowed participants to share thoughts regarding bystander behaviour in an in-depth and comprehensive way, free of these influences. Utilising vignettes further creates a non-threatening environment allowing

adolescents to exhibit a greater level of control over the interview process so that they can disclose information on their own terms (Barter and Renold, 2000; Jenkins et al., 2010). Finally, our study presented an opportunity to corroborate recent research undertaken with Flemish students (Bastiaensens et al., 2014; DeSmet et al., 2013) to determine its relevance to other cultural groups, such as Australian students.

2.3. Method

The aim of this study was to obtain a holistic understanding of bystanders' experiences, perceptions and responses to cyberbullying, unconstrained by pre-conceived expectations of the phenomena of interest (Mishna and Van Wert, 2013).

The vignette method was adopted to facilitate discussion, involving a short, descriptive story of an incident presented to interviewees to obtain their opinions, attitudes and beliefs regarding its content, before further exploring themes raised by interviewees (Schoenberg and Ravdal, 2000). Vignettes have successfully been used for a range of research topics to elicit moral codes and group values, beliefs and norms of human behaviour (Barter and Renold, 2000; Jenkins et al., 2010). Vignettes allow researchers to create a social context simplifying the natural complexity inherent in real-life situations, thereby allowing the interviewee to reveal these as they discuss the vignette (Barter and Renold, 2000). The limited information on which participants are asked to comment often results in an 'it depends' response, enabling interviewees to clarify the context by defining pivotal influencing factors (Barter and Renold, 2000). This allows discussion to extend beyond an individual's specific life experience to general understanding of a concept at a social level (Schoenberg and Ravdal, 2000). The vignette for this study was based upon that

of Bellmore et al. (2012) and modified based on the recommendations of three adolescents, representing the target group, and two content experts. For instance, gender neutral names were used, online abbreviations were included, and the language was modified to improve authenticity for the target audience.

Interviews were conducted with 24 students aged 13–16 years (11 males, 13 females) from five metropolitan schools in Perth, Western Australia. Information letters were distributed to all students and their parents in the targeted age groups at each school. Active consent was required from both parents and students for inclusion in the research. The study was approved by the University Research Ethics Committee.

Interviews began with icebreaker questions asking students what technologies and social media are used to keep in touch and the positives and negatives of these. The vignette was then introduced with a printed copy provided while the interviewer also read the scenario aloud:

Whilst on social media one evening after dinner, Alex notices that Sam, a kid in his year, has posted really nasty comments about Jordan, another kid in his year. Sam is openly posting that Jordan is 'ugly, weird and annoying'.

Students were asked what the likely reaction of Alex would be if he or she was their age. Deliberate use of sex-ambiguous names was used with the 'his or her' pronoun systematically varied between interviews to investigate potential sex effects. This format allowed participants to guide conversation and reflect on responses to witnessing different

forms of cyberbullying. Frequent probes were used to further explore responses in depth, including the influence of social expectations, presence of other witnesses, relations to both target and perpetrator, form of insult (e.g. print vs photo/video), perceived harm and environment. These were not presented in a fixed order but explored flexibly as they arose within the interview discussion. The average length of interviews was 40 minutes (range: 24–62 minutes).

Prior to analysis, each participant was given a unique identifier specifying year grade (Y8–10), sex (M/F) and school (S1–5). All interviews were recorded and transcribed verbatim with analysis undertaken using NVivo. The coding frame was driven inductively and by theoretically derived codes from the works of Bauman et al. (2013), Salmivalli (2010), Bellmore et al. (2012) and Thornberg et al. (2012). Data were analysed using a thematic approach involving six phases: familiarisation with the data, initial code generation, theme development, theme review by data-set cross referencing, refinement of themes, and application to the research question and existing theory (Braun and Clarke, 2006).

2.4. Results

Initially, participants suggested most students their age would ignore incidents of cyberbullying similar to the vignette. They deemed this acceptable as Alex was not involved in the incident and would have become unnecessarily entangled by becoming involved:

To be honest most people would just not do anything. (Y8MS3)

I think most people would just turn a blind eye and say 'It's got nothing to do with me so why should I bother about it?' (Y9MS5)

Participants' speculations about the likelihood of Alex intervening in any form centred on a number of consistent themes: *Relationships, Context, Severity of Harm, Adults and Exceptions*.

2.4.1. Relationships

Participants indicated bystanders would most likely intervene if Alex had an existing relationship with either party involved, especially with the target. Such relationships included being a 'true' friend or a family member:

If it was, like, her sister or brother or a really, really close friend to them or family member or cousin or something ... she might stick up for her. (Y8FS1)

It depends if Jordan was his friend – often your friends would back you up – you wouldn't be just a 'random' backing him up. (Y10FS1)

Relationships were also considered important when gauging online communications accurately. Witnesses already acquainted with either party involved would have a better background understanding of the situation, such as knowing the people involved, the existing relationship between the parties and prior history of sarcastic or jovial communications. In ambiguous cases, participants suggested they could easily contact their

friends and assess the situation – via private online messaging, telephone or face-to-face at a later date:

If I know Jordan is really good friends with Sam you can tell it'd be a joke but if they don't know each other very well or absolutely hate each other you can tell straight away it's not. (Y10MS3)

I think Alex would try to help and so talk to Jordan and Sam and try to get both sides of the story and find out where things went wrong and how we could fix it. (Y9MS1)

Participants' expectations of taking action in the situation related to the ability of the witness to understand the situation:

If I'm friends but don't really know them that well – not like a close friend – then I'd just keep out of it because you don't really know that person well enough to understand what's actually going on. If it's one of your real close mates – say Jordan is my real close mate – then I'd generally ask Jordan what's going on. (Y10MS3)

If you didn't know them – if it's just a random person – then it wouldn't be important to you. You wouldn't be able to relate to the situation or if you know the two people then you can sort of know what it is about but if you don't then you just leave it. (Y10FS1)

2.4.2. Context

Participants indicated it was important to understand the context of online interactions. They suggested there is a greater chance of misinterpreting online communications due to a lack of cues available during face-to-face communications:

If someone commented on someone's photo, like 'you're ugly xoxo' you could take that the wrong way. You could think 'Oh, they're just joking' like 'x's and everything and then you can think 'Oh no, they're seriously hurting me I'm going to have a massive fit about this, it's not fair'. (Y9FS3)

Participants suggested bystanders risk misinterpreting something witnessed online by confusing friendly banter with cyberbullying. Participants considered false accusations as socially unacceptable, placing accusers at risk of becoming targets themselves:

You're even more uncertain of the whole situation because you think 'Well who are they? What's going on?' You tend to be a bit unsure if it is actual bullying or just them joking around. (Y10MS1)

In person you can see how they're taking it from their physical expressions or voice tone or whatever but online – unless it's like a video chat through Skype – you can't tell. (Y10M2S3)

Subthemes identified as assisting youths to determine the context of online interactions included *Clarifying motive*, *Anonymity* and *Sex*.

Clarifying motive

Participants reported that many online interactions involved humour, sarcasm and ‘friendly banter’, especially among males. However, they suggested it was not always obvious whether the content had harmful intentions due to ambiguity of online communications. In general, participants favoured caution by seeking more information before determining whether intervening was appropriate; relationships were considered helpful in this regard:

Some guys will ... say ‘you’re such an idiot’ but don’t mean it like that; they’re just joking around. On the Internet ... it’s harder to know when you’re joking. If you talk to people you tend to learn more – they are joking when they add ... a smiley face, it’s not meant to be harsh or anything ... but it can be misinterpreted quite easily so people might think ‘how’d you mean that exactly? Were you serious or was that a bit of a joke?’ (Y10MS1)

You really need to try to see if they’re joking or not. (Y9FS2)

Anonymity

Participants suggested anonymous online aggression was relatively uncommon, albeit more prevalent in certain forums than others. Social media platforms such as *Facebook* or *Instagram* involving personal profiles meant the aggressor was usually known and as a result aggressive behaviour was more subtle and covert. In contrast, participants felt the risk of cyberbullying was greater on online applications such as *ask.fm* and *Tumblr* that encourage anonymity. However, they believed users were aware of the risks involved

and on the whole would not take anonymous posts as seriously as those from individuals they knew:

I think you would be more inclined to [say something] because you don't know who it is – you can say what you want because you don't know the person – it doesn't matter. (Y10FS1)

Participants suggested that a key motivator for bystanders taking action in anonymous cases of cyberbullying was to uncover the identity of the perpetrator:

Alex would try and find out who Sam is more than defending – instead of like of defending Jordan, Alex would try and find out who Sam is. (Y9FS2)

I don't know who Sam is, so I'd find more information. (Y9MS2)

Some participants felt empowered to respond to online anonymous aggressors whom they considered cowards with insufficient courage to reveal themselves. Furthermore, if they had no personal relationship with the perpetrator, they would feel less inhibited and more willing to stand up for the target:

If he didn't know the person, it'd be better because you could just tell they're a coward anyway for not revealing themselves. (Y9F1S3)

On Tumblr there're actually people that get, sort of, harassed and then their friend steps in and ... says 'whoever said that, it's not true' and they actually fight against them ... Then the anonymous bully kind of stops; he thinks 'oh no' because other people are getting involved 'coz doing something like that is like a coward. (Y9F2S3)

Sex

There was a consistent theme across interviews that sex differences exist between boys' and girls' responses to online communications and the sex of the target influences how witnesses respond to acts of cyberbullying. Generally, harsh online communications posted between boys were regarded as having less longevity than those between girls. Participants indicated boys were more likely to 'shrug off' nasty online content. Some participants acknowledged that cyber-aggression is still likely to hurt boys' feelings, but they would generally 'get over' instances of cyberbullying more quickly than girls. Participants suggested bystanders intervening in cyberbullying involving girls was more problematic than for boys. Girls were considered more vulnerable to negative online communications as these tended to be of greater intensity and duration when girls were involved. Participants suggested bystanders were therefore less likely to publicly respond to cyberbullying involving girls than boys, preferring private messages so as not to further inflame the situation:

If it was all boys they'd probably be 'over it' pretty soon because there're a lot of boys at my old school that it happened to and then the next day they'd be

best mates again. If it was all girls, it'd take a lot longer and be a big drama – there'd be lots going on. (Y8FS4)

If it is all boys then it's mostly 'trolling'. If all girls then there's a lot of private messaging. So if it was all boys and Alex noticed then he'd try to defend or join the troll but if it was all girls then Alex would private message. (Y9FS2)

2.4.3. Severity of harm

A key factor determining whether participants would intervene in an incident of cyberbullying was the perceived severity of the online incident. Participants described a spectrum of severity but expressed difficulty articulating its composition. Broad, generic insults such as 'ugly', 'fat' and 'annoying' did not warrant intervention; participants believed most targets would brush these comments aside easily. However, comments specifically personal in nature – race, sex, sexuality, family members and home life, or general 'hate' message – were all seen as unacceptable. Comments suggesting the target was worthless or better off dead were viewed as extremely unacceptable and warranted action:

If you're saying something in general about their race then that's not appropriate because that's racist and it's just not right. If they're like nude pics or anything, or saying 'go kill yourself', 'go die', 'nobody likes you' that's probably over the line. If it's like 'ugly', 'weird' and 'annoying' that's not too big a deal. (Y8F1S4)

Depends on what level Sam takes it to. If it's only little remarks here and there but if he gets really violent or something you might need to tell Jordan or tell a parent or something. (Y10MS2)

Personal pictures were seen as inappropriate to post and participants generally disapproved of perpetrators ignoring a target's requests for content to be removed. It was generally recognised that online activity leaves a digital footprint that cannot be erased and that inappropriate content could harm a target beyond the immediate future:

I think it's a lot harsher online and whoever does it, I lose a lot of respect for them, because if you're going to do it, do it to their face not sit behind a computer. It's a lot meaner because literally everyone finds out. I mean you can't stop that and once it's there – you can't get it off – it's not like something's over in a few months, everyone just forgets about it and it's not a problem for the person – it's just always there and anyone who comes to the school and you add to Facebook they will see it, it's just everyone you know. (Y8MS3)

I think mean videos and photos are the point where it's too far, like because it's sort of exposing someone in a way that they don't want to be exposed. So I guess you'd do something about it when it got to that point but like little comments and sniggers towards her and everything you kind of just – I don't know – it kind of depends how bad it got – if the words got really bad you'd do something about it, but with photos and stuff you really should sort it out

straight away because it's just like, photos can be anywhere, future employers and everything could see that, so it's kind of affecting their future.

(Y9F2S3)

Personal characteristics of the target were also considered critical in assessing the severity of online content. Where an individual is known to have personal issues, such as a difficult home life, this was seen as inappropriate to be shared online:

Say I don't really know Jordan that well but I know they have depression or some kind of issue like that or anxiety and maybe Sam's making fun of them and maybe Jordan's on a risk assessment plan. In that situation when I know they have a serious issue then I'd definitely step in because if something were then to happen to Jordan I'd feel responsible for it. But if I had absolutely no idea that they had depression or anxiety then I wouldn't really see that as my fault because I had no idea. (Y10MS3)

So physical definitely, so if they threaten to punch them or something and severely verbal, like if you were really like having a go at someone ... then I would probably say something. But if Jordan was just able to brush it off, then just let them sort it out between them. (Y9F2S3)

2.4.4. Adults

Participants reported that the online world of adolescents is generally not one in which adults are present. It was seen as socially unacceptable to have parents and teachers inhabit the online spaces that young people frequent. Participants suggested friends and older adolescents were preferred when seeking advice about online issues:

Parents sort of do have a place in online social environment but not as big, it's kind of just little and tucked away sort of. (Y9F2S3)

I think with social media you don't really show parents things ... you kind of just keep it online, it's kind of uncool to get your parents involved. (Y10FS1)

Adolescents were reluctant to involve parents when witnessing cyberbullying. Parents were viewed as emotive and potentially embarrassing, prone to over-react and make things worse through punitive removal of access to social networking technology:

Getting two parents involved, if Alex told his parents, they told Sam's parents then it would really just be complicated and get out of hand. (Y8MS1)

You'd be afraid to tell your parents because you don't want them to sort of over-react and go out and do something really drastic-like. I think also you'd be kind of afraid they'd make it worse, like if it's a little comment ... the first thought would be 'oh if I tell my mum ... they're going to go tell the police and

the police will get involved and it'll just sort of get blown out of all proportion.

(Y9F2S3)

Adults were recognised as necessary when the target of aggression was not coping. Participants suggested bystanders were reluctant to inform an adult without the target's approval and would rather spend time encouraging the target to talk to an adult. If they feared for the safety of the target, then they would speak to a trusted adult with whom they had a good relationship, whether this be a parent, teacher or significant other:

Obviously it's up to the person being bullied to decide when parents should get involved but once it really starts to affect you it's time to get at least someone, a parent, a friend, an older sibling ... involved because they have the power to talk to the other parents and discuss this with school and things like that. (Y9MS1)

I think if I was Alex the right thing ... to do would be to keep trying to convince Jordan to do something because I wouldn't necessarily go out and tell someone if the person themselves doesn't want them to know so I wouldn't go and tell a teacher that Jordan is being bullied on the Internet because if Jordan won't say it themselves then it's kind of like dobbing. (Y10FS3)

2.4.5. Exceptions

Participants suggested some individuals with no relationship to either party would still intervene online where others generally would not. Participants attributed this to some individuals being particularly empowered to act when witnessing cyberbullying, often because they had been targets themselves:

I don't know – I guess it kind of depends on what kind of person you are really. (Y10FS3)

If he's a person who doesn't normally get in trouble or get involved in this he might just back away from it. But if he's a good person and does the right things then he would say 'stop doing it'. (Y8MS1)

2.5. Discussion

This study aimed to identify key factors influencing peer bystander behaviour in a cyber environment. Our findings suggest two classes of online bystanders. The first are what participants considered *exceptional bystanders* who may intervene as a matter of principle when observing cyberbullying due to feeling strongly about the issue and/or having experienced bullying themselves. These exceptional bystanders are perceived to possess greater moral reasoning skills in comparison with their same-age peers, which empower them to take action where others may not (see Peterson, 1989; Turiel, 2008a). According to Salmivalli (2010), bystanders of traditional bullying who intervene tend to be females with strong anti-bullying attitudes, positive social status, high self-efficacy of defending and who are cognitively skilled. However, extrapolation from the traditional bullying literature to

these results is problematic as traditional bullying research has primarily focussed on the general characteristics of bystanders who intervene without consideration of their relationship to the parties involved (Gini et al., 2008a; Pöyhönen et al., 2010; Salmivalli, 2010; Thornberg, 2007).

For all other bystanders, the *relationships* theme was prominent. First, participants' relationships influence what young people read. The high volume of online communications means they are unlikely to read every online communication. They primarily attend to messages involving close friends and family, suggesting those with extended social online networks may be better protected against cyberbullying.

Participants' relationships further influence how they would process material as bystanders, as depicted in Figure 2.1 overleaf. Participants thought that typical bystanders with no close relationship with either party will usually ignore the post. They conceded that targets without close online relationships therefore are likely to be more vulnerable as typical bystanders would be less likely to offer them support.

Bystanders noticing a post that may be potentially hurtful to someone they know, however, engage in a much more complex process. Those convinced the post is a joke may join in if close to the protagonists; otherwise they will ignore it and take no action. Participants observing ambiguous or overtly nasty posts online, like situations investigated by Bastiaensens et al. (2014) and DeSmet et al. (2013), tend to investigate the context before deciding on a course of action. These bystanders consider the motive of the

communication, anonymity and the sex of the parties involved, along with the likely severity on the target before deciding on a course of action.

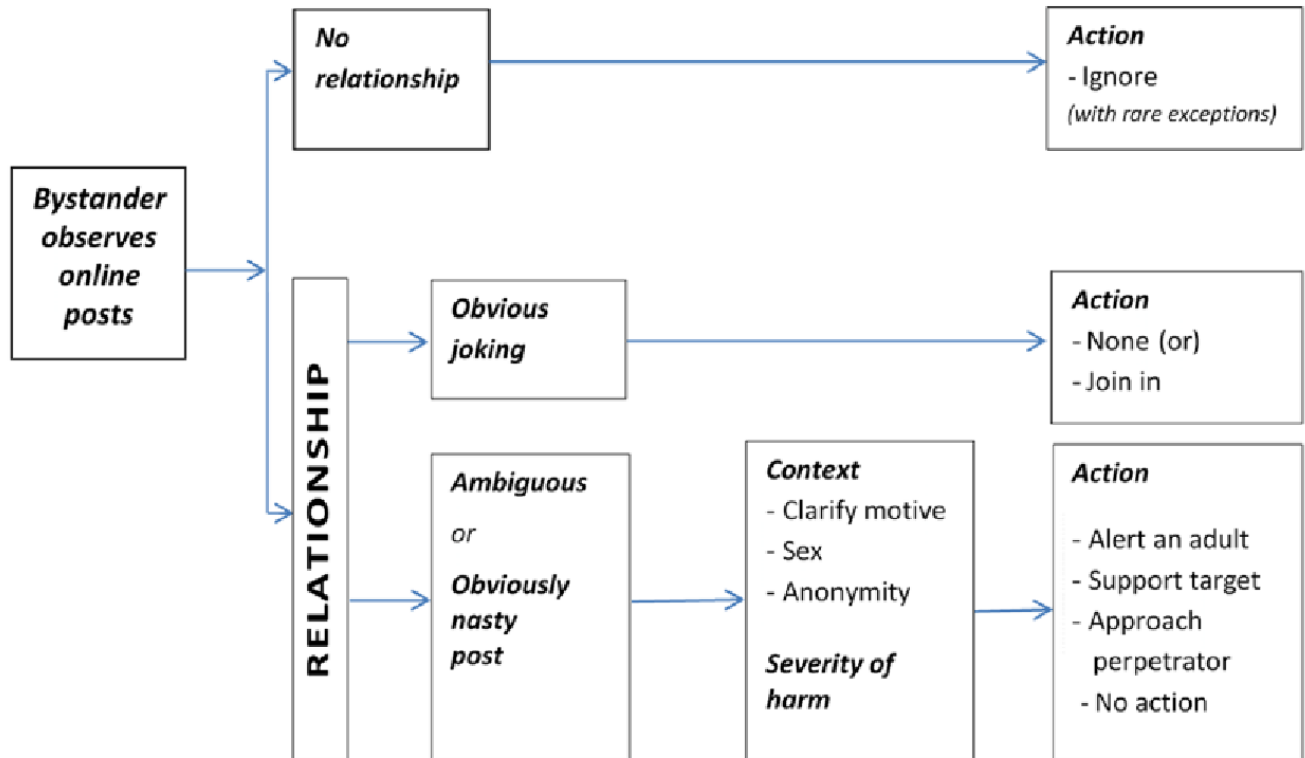


Figure 2.1. General process for typical bystanders who witness cyberbullying

Participants thought it particularly important to clarify the motive of individuals posting ambiguous online posts. Bystanders find it easier to clarify the motive of an ambiguous or nasty post if they have a relationship with the parties involved because they know the history of previous interactions between the parties involved (are they usually on friendly terms or not), which makes it easier to request further information if necessary. When bystanders know the identity of perpetrators, they are reluctant to intervene until obtaining further information.

Participants suggested bystanders would consider the sex of protagonists as a contextual factor because they thought female targets take cyberbullying more personally and are more likely to escalate a confrontation by responding or trying to get others involved. They therefore proposed that bystanders would be more reluctant to intervene when females are involved in cyberbullying, and if they do, they do so in more subtle and indirect ways to avoid escalating, or being drawn into, the situation further. Participants, in contrast, suggested male targets were better able to ignore cyberbullying and perceived bystanders to be less inhibited in their response and comfortable to intervene when males were involved in the cyberbullying.

Anonymity is a contextual consideration for online bystanders, who will invest time attempting to uncover the identity of anonymous perpetrators before deciding on a course of action. Barlińska et al. (2013) suggested anonymity leads to bystander disinhibition and greater anti-social behaviour in bystanders. However, our findings suggest anonymity may also contribute towards positive bystander behaviours, as anonymous online perpetrators are generally considered cowards, thereby 'disinhibiting', or rather emboldening, bystanders to confront perpetrators.

Participants believed that bystanders consider the potential severity of harm to the target and that a relationship allows them to better judge the impact of an aggressive post and of how the target is likely to react. They suggested bystanders are unlikely to intervene when they believe the target would brush off negative criticism. Likewise, bystanders acquainted with the target are able to consider personal circumstances and negative

comments, which may be particularly hurtful or damaging, and this influences their course of action, such as involving an adult if the impact is perceived as severe enough. Participants perceived acts of cyberbullying involving personal photos and videos as particularly harsh, corroborating previous research (e.g. Menesini et al., 2011).

Once bystanders gain sufficient background information, they can then decide on a course of action (see Figure 2.1). Participants thought bystanders' first option would rarely be to seek advice or assistance from an adult, unless the situation appeared life-threatening or targets gave permission to involve adults. Young bystanders seeking advice prefer to do so from peers, older siblings or friends. Their reluctance to involve parents in online matters stemmed, at least in part, from a fear that parents would misinterpret, over-react and possibly make situations worse. This belief seemed to strengthen as teenagers got older – consistent with adolescent development characterised by closer alignment with peers and emancipation from the strong parental influences of childhood (Livingstone and Smith, 2014; Peterson, 1989). Teachers were seen as an, albeit rare, alternative to seeking parental help, and mainly by younger participants. This result is consistent with previous research describing cyberbullied targets' reluctance to seek adult help (Bhat, 2008; Lenhart et al., 2011; Mishna et al., 2009; O'Moore, 2012; Slonje et al., 2013; Smith et al., 2008). It further indicates that programmes encouraging reporting of cyberbullying to parents and teachers will likely be ineffective and further research is warranted to determine cyberbullying response strategies young people may use to seek quality advice and support.

Participants thought bystanders' second option was to either defend or support the cyberbullied target or approach the perpetrator. They thought bystanders would be

influenced by the relative strength of their relationships with the parties, the sex of the parties involved and perceived severity of harm. If they think the impact on the target may be severe, bystanders tend to defend male targets publicly and support female targets privately, either providing moral support or checking on their welfare. Participants thought bystanders less likely to request perpetrators cease their negative posts unless they had a good relationship with them. In the case of cyberbullying involving females, even private messages were to be avoided as they could be misconstrued or made public to others.

The final course of action that bystanders can undertake, as per Figure 2.1, is to do nothing – something participants considered the most common course of action, mirroring the results of Lenhart et al. (2011). Several interrelated reasons are possible explanations. First, our participants thought bystanders may find it easier to detach themselves from cyberbullying, being more removed from the aggression compared to traditional bullying. This phenomenon is known as ‘moral disengagement’ (Bandura, 2002; Thornberg, 2010), identified as a potential influence on cyberbullying perpetration (Bussey et al., 2015). Second, the potential number of bystanders may make individuals reluctant to intervene for fear of negative scrutiny – a well-studied phenomenon called the *bystander effect* that increases as the number of bystanders increases (Latané and Nida, 1981; Thornberg, 2007). Third, it is possible that online bystanders, like their traditional bullying counterparts (Latané and Nida, 1981), are less likely to intervene in ambiguous situations. This is especially pertinent in an online environment where cues are absent, such as intonation and body language, generally used to judge social interactions in face-to-face contexts. Our participants suggested bystanders may be more reluctant to intervene for fear of misinterpreting playful banter or sarcasm. Participants considered false accusations of

online aggression as taboo, potentially exposing misinformed defenders to online ridicule and aggression themselves. Such reluctance is consistent with traditional bullying research suggesting bystanders hesitate to intervene for fear of being targeted themselves (Lodge and Frydenberg, 2005; O'Connell et al., 1999; Salmivalli, 2010; Thornberg, 2007). Finally, it is possible that online bystanders hesitate to intervene if they lack the confidence to do so effectively, as is the case with bystanders of traditional bullying (Cappadocia et al., 2012; Thornberg et al., 2012), but we have no data to confirm this.

A potential limitation of this study is that participants provided their perspectives on a hypothetical vignette rather than drawing from their own personal experiences. However, Turiel (2008b) has previously demonstrated that children's assessments of behaviour from hypothetical vignettes are consistent with their behaviour in real-life situations. In addition, we found the vignette methodology facilitated engagement of adolescents in deep and meaningful conversation regarding their perceptions of cyberbullying as a bystander, consistent with the experiences of previous researchers using qualitative vignette methodologies (Barter and Renold, 2000; Jenkins et al., 2010; Schoenberg and Ravdal, 2000).

All participants were volunteers, so self-selection bias also cannot be ruled out and the results may not extrapolate to the general population. Our participants did not report the range of negative bystander actions reported elsewhere (Bastiaensens et al., 2014; Bellmore et al., 2012; Lenhart et al., 2011), making the process we present in Figure 2.1 appear relatively positive. We can only speculate that the power differential between the adult interviewer and youth interviewee (Holstein and Gubrium, 2002) led to socially

desirable response bias (Bellmore et al., 2012; Holstein and Gubrium, 2002), which would have been absent in quantitative studies.

However, the results gleaned from our interviews replicate other recent studies utilising alternative methodologies that suggest young people witness cyberbullying but relatively few intervene, and they have a preference for peers rather than adults for advice and support (Lenhart et al., 2011; O'Moore, 2012). Our results also replicate other research emphasising the fluidity of online bystander roles and the importance of context, perceived severity of harm and the sex of those involved in determining a bystander's course of action (Bastiaensens et al., 2014; DeSmet et al., 2013). The consistency of our findings with those from alternative methodologies suggests a robust pattern of results transcending cultural differences, at least between Flemish, Irish, American and Australian adolescents. Future research might consider the applicability of these findings to other cultural regions, distant from northwest European-dominant cultures.

The key message arising from our study is the importance of relationships in the online environment and its role in filtering the high volume of communications to which young people are exposed. It also highlights that young people without close online relationships may be at higher risk of negative outcomes as they do not have access to protective social supports from cyberbullying. Our finding that adolescents do not involve adults emphasises the wisdom of finding ways of assisting young bystanders through *cyberleader* programmes where peers of the same age or older are trained and supported to provide guidance on cyber issues to other young people (Campbell, 2005; Perren et al., 2012).

2.6. References

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Chapter 3: Adolescent bystanders' perspectives of aggression in the online versus school environments

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Contribution of authors

The candidate was responsible for the design of the research instrument, recruitment of participants, data collection and data analysis in this paper as well as drafting and refining the manuscript. Professor Allan assisted in the confirmation of key themes that best represented the data and provided guidance on the structure and clarity of the manuscript. Professor Cross assisted with instrument design and the review of the manuscript.

Relevance to thesis

The purpose of this chapter is to describe the differences perceived by young adolescent bystanders, when witnessing aggression, between the online and school environments and how these impact on their subsequent behaviours. The chapter presents an analysis of the results and discussion of the implications for interventions aimed at online bystanders. This chapter relates to Research Question 2: What do young adolescents perceive as differences in bystanders' responses to peer aggression in the online versus offline (school) environments? The findings also inform Chapters 4 and 5.

3.1. Abstract

Researchers' understanding of bystanders' perspectives in the cyber-environment fails to take young people's perceptions into account and remains imperfect. Interventions encouraging adolescents to help targets of cyber-aggression are therefore typically based upon traditional school-based aggression research. Twenty-four in-depth interviews with Australian 13–16 year-olds revealed two themes that reflect how young bystanders perceive differences between aggression online and at school. The *physical presence* theme suggests that young bystanders struggle to determine the online intentions in the absence of body language, leading to hesitancy in reactions, and furthermore making it easier for them to ignore online transgressions and avoid becoming involved. The *authority theme* indicates young bystanders' perception that, compared to the school environment, the online environment lacks clearly established rules, authority figures and formal reporting mechanisms. These differences indicate that unique strategies should be developed to encourage young bystanders to intervene in cyber-aggression situations.

Key words

Adolescence; bystanders; cyber-aggression; moral norms; schools; online

At the request of the author, Chapter 3 (pages 74-100)
has been omitted
from this version of the thesis at the request.

Chapter 4: Adolescent bystander behaviour in the school and online environments and the implications for interventions targeting cyberbullying

Citation

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Contribution of authors

The candidate was responsible for the design and development of the research instruments, piloting of instruments, recruitment of participants, data collection and data analysis in this paper as well as writing the literature review, methods, results and general discussion.

Professor Allan assisted in the structure and clarity of the manuscript. Professor Cross assisted with the review of the manuscript.

Relevance to thesis

This chapter presents analyses central to Research Question 3: What, if any, measurable differences exist between young bystanders' behaviours when witnessing online versus offline (school-based) aggression? The purpose of this chapter is to quantitatively test the key moderators of bystander behaviours presented in Chapters 2 and 3, including relationships to the perpetrator and target, and perceived severity of the incident. These were manipulated to explore bystander responses across both school and online environments. The findings of this research were discussed within the context of development of future bystander interventions for online environments. The findings also inform Chapter 5 of this thesis.

4.1. Abstract

The aim of this study was to add to the emerging knowledge about the role of bystanders in cyberbullying. To differentiate online versus offline bystander behaviours, 292 Australian children (mean age=15.2y; female=54.4%) reviewed hypothetical scenarios experimentally manipulated by bystander sex, relationship to target and perpetrator; and severity of bullying incident. In both environments, bystander helping behaviours were more likely when the target was a close friend, perceived harm to the target was high, and when bystanders were female. Bystanders also reported being less likely to approach teachers or publicly defend targets in online versus offline environments. This suggests programs designed to encourage positive bystander behaviours online can be similar to face-to-face approaches but need to recognise some aspects unique to the online environment.

Key words

Adolescents, bullying, bystanders, online, quantitative, school

4.2. Introduction

Traditional school bullying behaviour (hereafter referred to as offline or school bullying) has been researched for almost half a century (Olweus, 2010), whereas cyberbullying is a relatively new variation of this behaviour as a result of advances in communication technologies (O'Moore, 2012). Many consider cyberbullying an extension of traditional bullying behaviours undertaken in a new modality (Tokunaga, 2010) and that the fundamentals of behaviour are essentially the same (e.g., Olweus 2012a; 2012b). Yet cyberbullying has potentially unique characteristics that differentiate it from offline bullying, including: anonymity, rapid dissemination, and permanence once placed on the World-Wide-Web. Furthermore, some criteria used to define offline bullying are not easily translatable into cyberspace. Power imbalances that influence school bullying—such as physical strength or popularity—appear to have less impact in cyberspace (Smith, del Barrio & Tokunaga, 2013). Rather, power imbalances in cyberspace appear more influenced by technological savvy (Vandebosch & Van Cleemput, 2009; Erdur-Baker, 2010) and anonymity (Smith, del Barrio & Tokunaga, 2013). It is thought anonymity in particular allows disinhibition from usual social scruples that would more likely be observed in face-to-face interactions (Suler, 2004; Spears et al., 2013; Barlinska et al., 2013). Smith (2012), who provides a useful summary of the potentially important contextual differences between school and cyberbullying and their impact, also argues that the variety of bystander roles in the two contexts differ notably.

The influence of peer bystanders has been examined by a number of researchers for offline bullying (Salmivalli, 2010; Salmivalli, Voeten & Poskiparta, 2011; Craig & Pepler, 1997; Pozzoli, Gini & Vieno, 2012; Thornberg, 2007; Thornberg et al., 2012; Gini, Pozzoli,

Borghi & Franzoni, 2008; Bellmore, Ma, You & Hughes, 2012). When bullying takes place within a broader social environment the presence of peer bystanders can either positively or negatively influence the bullying dynamic by influencing both the prevalence and duration of bullying episodes (Obermann, 2011; Salmivalli, 2010; Hawkins, Pepler & Craig, 2001). Thus, peer bystanders are considered an important focus in many school-based bullying prevention programs (Salmivalli, 2010; Salmivalli, Voeten & Poskiparta, 2011; Craig & Pepler, 1997; Pozzoli, Gini & Vieno, 2012; Gini, Pozzoli, Borghi & Franzoni, 2008). As such, it is likely that peer bystanders can also play a role in cyberbullying.

A number of key individual and situation factors influencing bystander intervention offline have been identified and these include possessing moral sensitivity and strong anti-bullying attitudes, being empathic, having high self-efficacy, being cognitively skilled, having positive peer status, being female, having friendships with those involved, perceiving the situation to be severe and where the target may be harmed, having a positive school climate and the number of other bystanders present (Salmivalli, 2010; Forsberg, Thornberg & Samuelsson, 2014; Thornberg et al., 2012; Bellmore, Ma, You & Hughes, 2012; Oh & Hazler, 2009; Gini et al., 2008; Lodge & Frydenberg, 2005). However, the role of the online bystander is not well understood; most research to date has focussed on targets and perpetrators. Two studies provide descriptive data suggesting young people frequently witness cyberbullying but few intervene (O'Moore, 2012; Lenhart et al., 2011). Two other studies suggest a range of factors influence bystander intervention when witnessing cyberbullying, including the context, severity of the incident, bystanders' relationship to those involved and their sex (DeSmet et al., 2014; Bastiaensens et al., 2014). Like traditional school bullying, the perceived severity of cyberbullying by a bystander influences whether

assistance is given (Bastiaensens et al., 2014). This is in keeping with the phenomenon first described by Latané and Darley as the *bystander effect* (see Latané & Nida, 1981). Sex differences are well established in the traditional school bullying environment, with females more likely to provide support to targets of bullying than males (Salmivalli, 2010; Gini, Albiero, Benelli & Altoe, 2008). However, the research literature for the online environment remains equivocal to date. Females were found to offer greater support and assistance than males when witnessing cyber-aggression in some studies (e.g., Bastiaensens et al., 2014) whilst others have found no sex differences (Li, 2006). Adolescents are less likely to seek adults out as a source of advice and support in the online environment, instead having a strong preference to engage with their peers (Lenhart et al., 2011; Patchin & Hinduja, 2006). The relationship of the bystander to the perpetrator and target of bullying incidents is noted to influence bystander behaviour in both offline (Bellmore et al., 2012; Oh & Hazler, 2009) and online environments (DeSmet et al., 2014; Patterson, Allan & Cross, 2015). Adolescents in Patterson and colleagues' (2015) qualitative study reported that a bystander's relationship with the people involved influences whether they would intervene when witnessing cyberbullying, because it helps them understand the context of the situation and the perceived severity of the incident.

Thus several potential factors that influence bystanders' reactions to cyber-aggression were identified through qualitative methods. The aim of the present study was to identify through experimental manipulation which of these factors affect bystander action and compare their relative influence in the online versus offline environments, to address the following research questions:

1. What are the differences in bystander behaviour in the offline and online environments? Of particular interest, does the online environment more readily facilitate bystanders to ignore bullying situations?
2. What is the role of sex in bystander responses? Will female bystanders be more likely to provide support and assistance than male bystanders?
3. What is the role of relationships? Are bystanders more likely to provide support to those with whom they have a closer relationship?
4. What is the role of perceived severity? Are bystanders more likely to intervene when they perceive a bullying incident as more severe?

Exploring these comparisons will inform the design of interventions that try to encourage and enable bystanders to deter or inhibit cyber-aggression and indeed whether such interventions need to consider the unique environment which bystanders inhabit when witnessing bullying and aggression.

4.3. Materials and Methods

4.3.1. Participants

In total, 292 Grade 9 and 10 participants were recruited from six non-government schools in Perth, Australia in 2014. They had a mean age of 15.2 years ($SD=0.7$) and 54.5% were female. Consent to participate was gained from both parents and students. Approval for this study was given by the overseeing university ethics committee and relevant education authorities.

4.3.2. Data collection

An online survey manipulating themed vignettes was used to test key interest variables influencing bystander behaviour. This method was an adaptation of that previously used by Bellmore and colleagues (2012) utilising text-based vignettes and measuring the likelihood of participants, as bystanders, intervening when witnessing bullying behaviours under various conditions in the school environment. This approach allowed for the control and experimental manipulation of key areas of interest. Hypothetical vignettes have previously been used in psychological and bullying research specifically (see Bauman & Del Rio, 2006; Bastiaensens et al., 2014; Bellmore et al., 2012; Hoetger, Hazen & Brank, 2015; Nesdale et al., 2008; Page, Shute & McLachlan, 2015; Srabstein et al., 2013; Turiel, 2008).

A range of vignettes were piloted with nine students in Grades 9 and 10 to ensure validity and authenticity of language for this age group. The results of the pilot testing informed the final versions of the vignettes (one online and one school-based). As a manipulation check, participants were specifically asked whether they had noticed that one vignette was online and the other at a school. Participants suggested the use of text abbreviations for the online, but not the school vignette, made this distinction clear. The vignettes were also vetted by the ethics committees to ensure the content was appropriate for testing in schools. These vignettes describe a situation in which one student (the perpetrator) makes nasty remarks about another student (the target), while the participant is a bystander.

The wording was as follows:

School vignette:

You are at school one day when you overhear Tom yell at Lachlan:

“You’re such a try hard. We all laugh behind your back. EVERYONE HATES YOU!!”

Tom is a friend but not a close friend. Lachlan is a close friend of yours.

Online vignette:

One night you go online and notice Emily has posted a message to Lily:

“ur such a try hard. We all laugh behind ur back. EVERYONE HATES U!!”

Emily and Lily are both close friends of yours.

Within-subject comparisons were undertaken with each participant being presented one online and one school vignette, in a randomised order. A number of relationship variables were also randomly manipulated within each vignette including: the bystander’s relationship to the perpetrator (close friend; friend but not a close friend; stranger), and the bystander’s relationship to the target (close friend; friend but not a close friend; stranger) creating a 3 x 3 experimental design. The combinations of conditions generated for the study are presented in Table 4.1.

Table 4.1. Data matrix of vignette combinations and condition by participant

		Perpetrator relationship		
		<i>Close friend</i>	<i>Friend but not close</i>	<i>Stranger</i>
Target relationship	<i>Close friend</i>	1 online + 1 school	1 school + 1 online	1 online + 1 school
	<i>Friend but not close</i>	1 school + 1 online	1 online + 1 school	1 school + 1 online
	<i>Stranger</i>	1 online + 1 school	1 school + 1 online	1 online + 1 school

4.3.3. Measures

After reading each vignette, participants were asked to indicate how likely they would be to undertake eight behaviours if witnessing the event as a bystander. Responses were recorded along a continuum ranging from 0 (*I definitely would not do this*) to 5 (*I definitely would do this*). The various behaviours included:

- Ignore the situation
- Talk about it to:
 - my friends
 - a teacher
 - my parents
- Publicly and openly:
 - ask the perpetrator to stop
 - defend the target
- Privately:
 - ask the perpetrator to stop
 - comfort or support the target

This list of bystander behaviours was generated from qualitative research undertaken by Patterson, Allan and Cross (2015, 2016) and cross-referenced with other bullying literature (Bauman, Cross & Walker, 2013; Bellmore et al., 2012; Patchin & Hinduja, 2006). The order in which the behaviours were presented was randomised within the survey to address ordering effects.

Finally, participants were asked to rate the extent to which they thought each vignette was hurtful, funny and serious on continuums ranging from 0 (*not at all*) to 5 (*extremely*), adapted from Bastiaensens et al. (2014) to gauge respondents' perceived severity of the bullying incident. Basic demographic information (sex, age, postcode, grade level) was also collected. Based upon the results of Bellmore et al. (2012) we anticipated an average eta squared of .056 equating to an effect size of .244. A power analysis suggested a 3 x 3 design (combinations of scenarios) with two repeated measures (online vs. offline) and conservatively assuming a correlation of 0.7 between repeated measures, a sample size of 243 in total, or 27 participants per cell, would have an 81% power to detect a statistically significant difference at $\alpha=.05$.

4.3.4. Procedure

The online survey was administered to students with consent at their school during a normal classroom period. Each school was provided with a survey hyperlink to be provided to participants. The survey link opened on a home page that provided study information and required active student consent before they could access the online survey. The survey

was completed by students during class time and took on average seven minutes to complete ($SD = 16.1$). Students who did not participate in the survey were given an alternative task allocated by their usual class teacher.

4.3.5. Statistical Analyses

The data were analysed at three levels. Firstly, simple within-subject comparisons were made between participants' school and online scores for the three ratings of vignettes and eight behavioural items, using the Holm–Bonferroni correction method to minimise Type 1 errors for multiple comparisons. At the second level, a repeated-measures general linear model (GLM) was used to examine sex differences for within-subject comparisons of the eight behavioural items in the school versus online environments. This method was used as it automatically adjusts for Type 1 error. At the third level, multivariate GLMs were used, treating sex as a co-variate and examining school and online ratings separately, to compare several between-subject differences: bystander relationships to the perpetrator and target, and low versus high participant ratings of the seriousness and hurtfulness of the vignettes. These analyses started with Pillai's Trace to detect any overall between-subject differences, followed by univariate analyses of variance (ANOVA) to identify where differences existed amongst the eight behavioural items, and, where appropriate, Tukey HSD post hoc analyses to identify which groups differed to a statistically significant extent.

4.4. Results

4.4.1. Ratings of vignettes

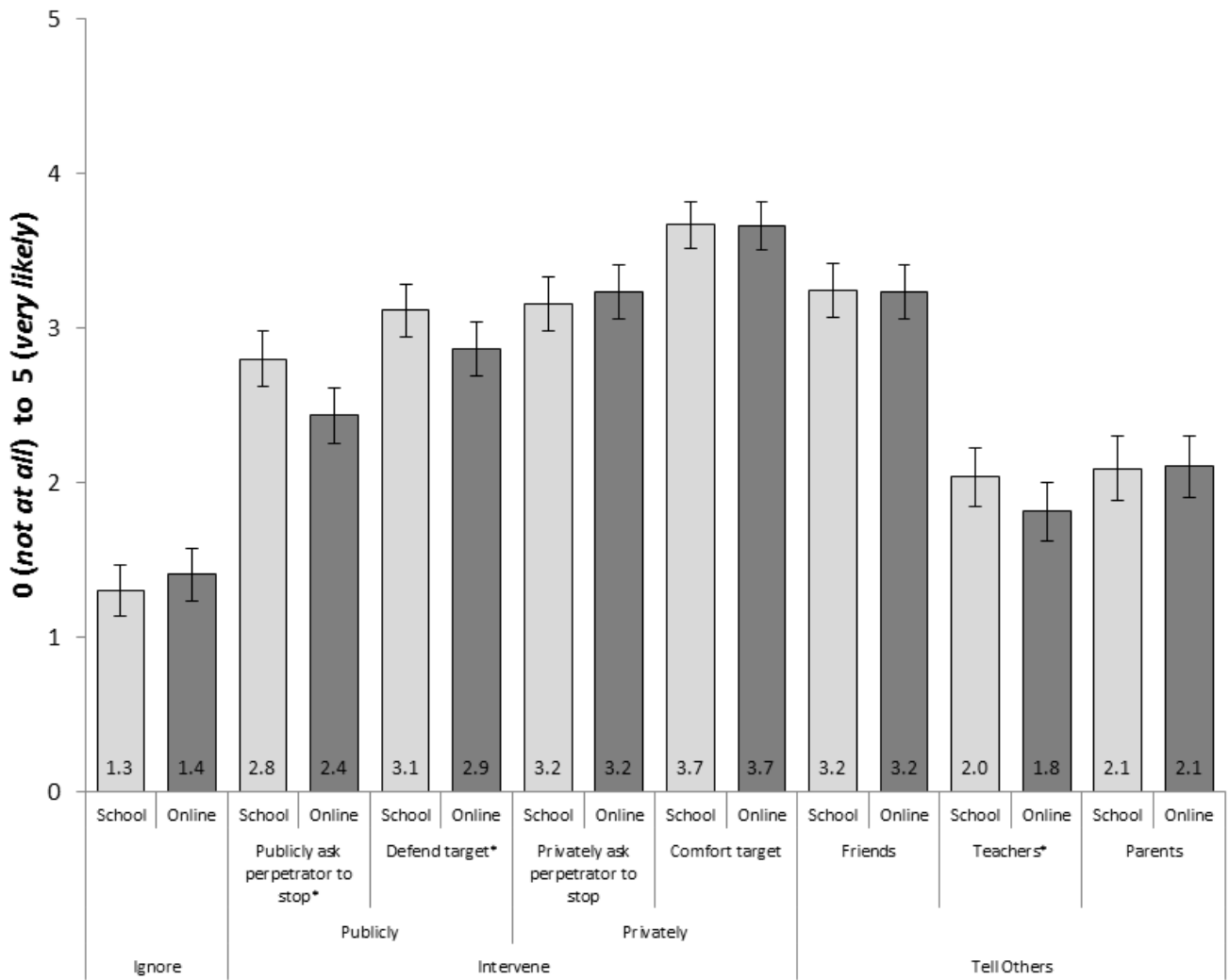
Respondents' pooled average ratings of the vignettes suggested they considered them quite hurtful ($M=4.11$, $SD=1.03$), fairly serious ($M=3.49$, $SD=1.23$) and not at all funny ($M=0.38$, $SD=0.86$). Within-subject comparisons suggested participants did not rate the school and online vignettes significantly differently in terms of these three variables.

4.4.2. Environment (School versus Online)

Mean ratings for the eight bystander behaviours comparing online and school conditions are provided in Figure 4.1. Within-subject comparisons identified three significant differences more likely in the school environment: talking to a teacher ($t(288)=3.270$, $p=.001$), publicly asking the perpetrator to stop ($t(288)=4.450$, $p<.001$) and publicly defending the target ($t(288)=3.049$, $p=.003$).

4.4.3. Sex differences

A number of significant main effects of sex were detected, with females less likely to ignore ($F(1,288)=13.46$, $p<.001$) and more likely to talk to friends ($F(1,286)=4.17$, $p=.042$), talk to a teacher ($F(1,287)=5.07$, $p<.001$), talk to parents ($F(1,287)=20.72$, $p<.001$) and comfort the target in private ($F(1,288)=14.33$, $p<.001$). No significant interactions were found between environment and sex, suggesting these differences held constant across both environments.



* denotes a statistically significant difference using paired-sample t-tests with the Holm–Bonferroni correction method

Figure 4.1. Mean ratings of bystander behaviours for online vs. school environments (with 95% CI bars)

There was no overall significant interaction between target and perpetrator relation for bystander behaviours ($V = .148$, $F(32,1104)=1.329$, $p=.106$). However, significant interactions were observed for ignore ($F(4,281)=2.659$, $p=.033$); and talk to teacher ($F(4,281)=3.739$, $p=.006$). Figure 4.2 illustrates that bystanders were more likely to ignore incidents if both the target and perpetrator were strangers compared to any other combination of relationships. Figure 4.3 illustrates that bystanders are significantly more likely to talk to a teacher if the target was a close friend and the perpetrator was a stranger.

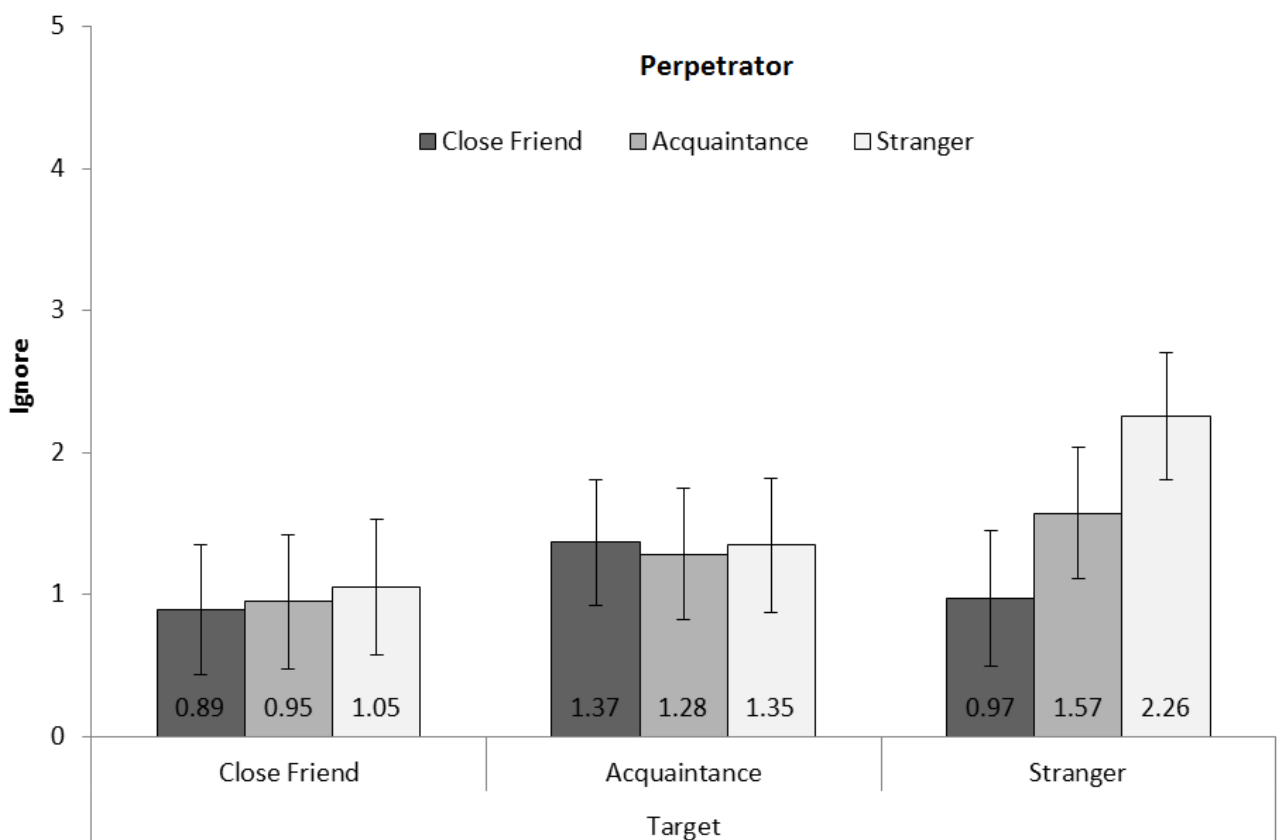


Figure 4.2. Interaction between target and perpetrator relations in a school environment for bystander behaviour 'Ignore'

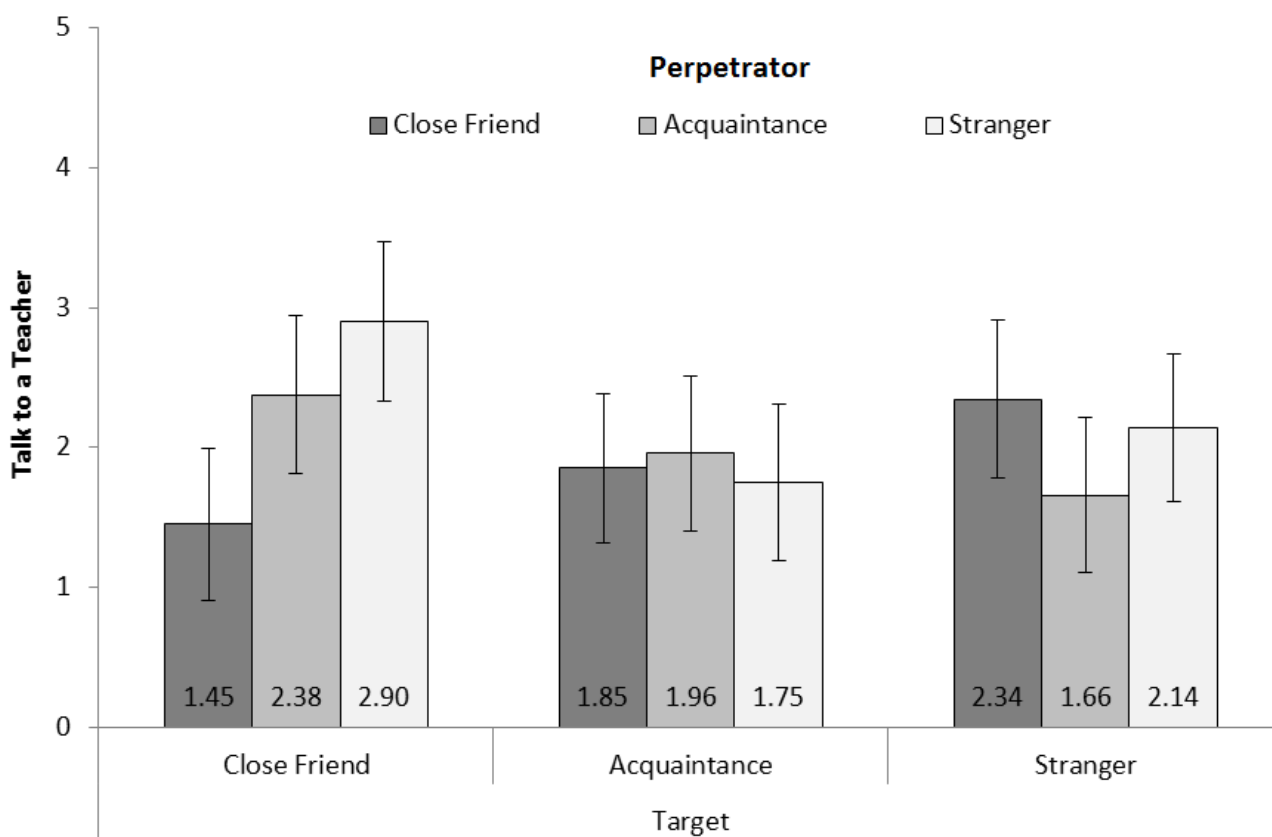


Figure 4.3. Interaction between target and perpetrator relations in a school environment for bystander behaviour 'Talk to a teacher'

Online environment

A significant effect was noted of *target* relation (close friend, acquaintance, or stranger) on bystander behaviour ($V = .201, F(16,546)=3.812, p<.001$). As detailed in Table 4.2, non-significant effects were observed for: talk to friends; talk to teacher; and talk to parents. There were significant effects of: ignore; publicly ask perpetrator to stop; publicly defend the target; privately ask the perpetrator to stop; and comfort the target in private. Post hoc analyses revealed significant mean differences between close friends and strangers for ignore ($MD=-.764; p=.001$), and between targets as close friends versus acquaintances when publicly asking the perpetrator to stop ($MD=.634; p=.001$) and publicly defending the target ($MD=.620; p=.010$). Privately asking the perpetrator to stop was more likely if the

target was a close friend versus either acquaintance ($MD=.552$; $p=.027$) or stranger ($MD=.646$; $p=.007$). Comforting the target was more likely if a close friend than stranger ($MD=.897$; $p<.001$).

Table 4.2. Results of bystander relationship to target and perpetrator at school and online

Environment	Behaviour	Target relation		Perpetrator relation	
		F	p	F	p
School	Ignore	5.473	.005*	3.061	.048*
	Friends	0.930	.396	0.493	.611
	Teacher	1.455	.235	1.460	.234
	Parents	0.314	.731	1.611	.202
	Public stop	1.946	.145	0.405	.668
	Public defend	2.133	.120	0.537	.585
	Private stop	2.419	.091	3.003	.051
	Private comfort	12.823	.000*	0.725	.485
Online	Ignore	6.574	.002*	2.448	.088
	Friends	2.612	.075	2.143	.119
	Teacher	2.377	.095	.848	.429
	Parents	2.243	.108	.731	.482
	Public stop	4.555	.011*	.015	.985
	Public defend	4.862	.008*	1.647	.194
	Private stop	5.362	.005*	5.430	.005*
	Private comfort	12.841	.000*	.146	.864

* denotes a statistically significant result

In the online environment there was a significant effect of *perpetrator* relation (close friend, acquaintance, or stranger) on bystander behaviour ($V = .119$, $F(16,546)=2.155$, $p=.006$). However, only privately asking the perpetrator to stop was significantly different by perpetrator relation. Post hoc analysis revealed bystanders were more likely to privately ask the perpetrator to stop when the perpetrator was a close friend rather than a stranger ($MD=.739$; $p=.002$).

There was no overall significant interaction between target and perpetrator relation for bystander behaviours online ($V = .133$, $F(32,1100)=1.185$, $p=.222$). However, a significant interaction was noted for privately asking the perpetrator to stop ($F(4,279)=2.835$, $p=.025$). As can be seen in Figure 4.4, bystanders are more likely to ask a perpetrator they don't know to stop when their close friend is being targeted compared to when the target is an acquaintance or stranger.

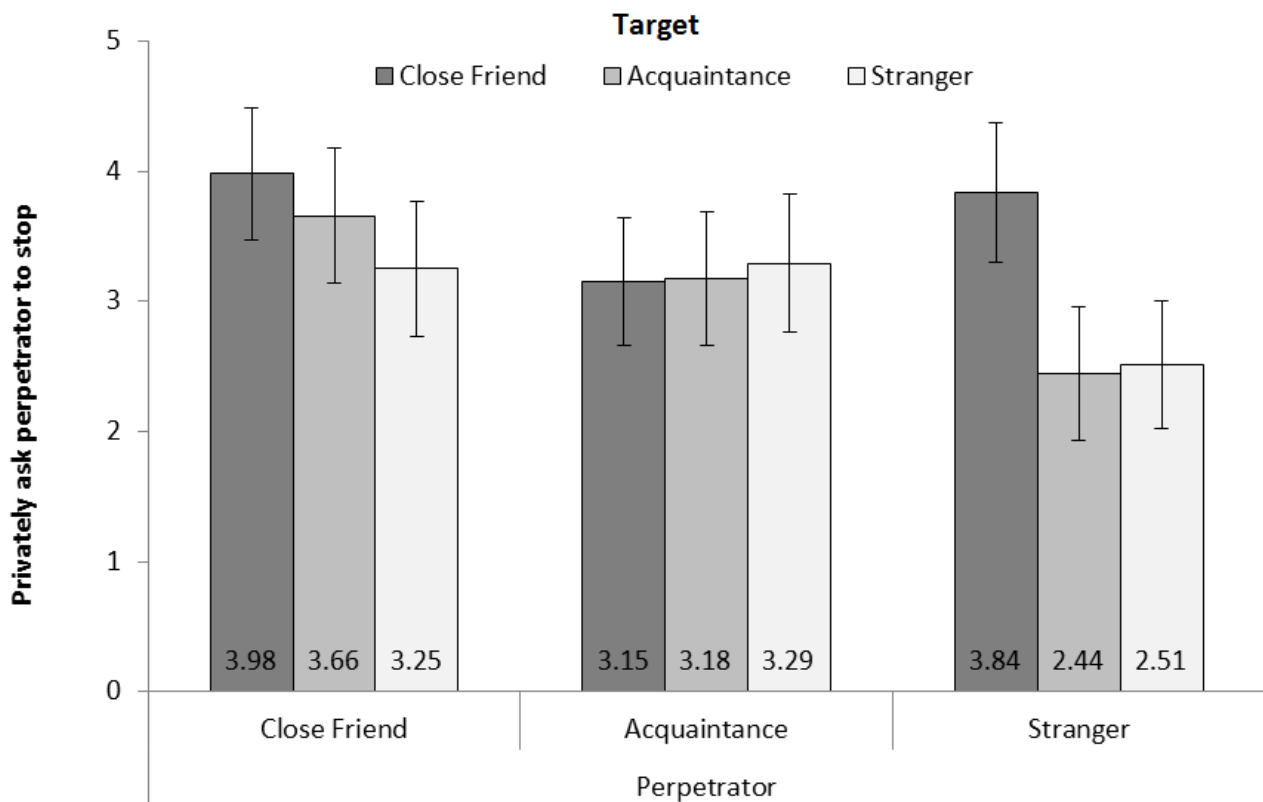


Figure 4.4. Interaction between target and perpetrator relations in an online environment for bystander behaviour 'Privately ask the perpetrator to stop'

4.4.4. Perceptions of Serious, Hurtful and Funny

As indicated in Figure 4.5, small but statistically significant differences were found by sex for all items with females finding the vignettes more serious and hurtful and less funny than males.

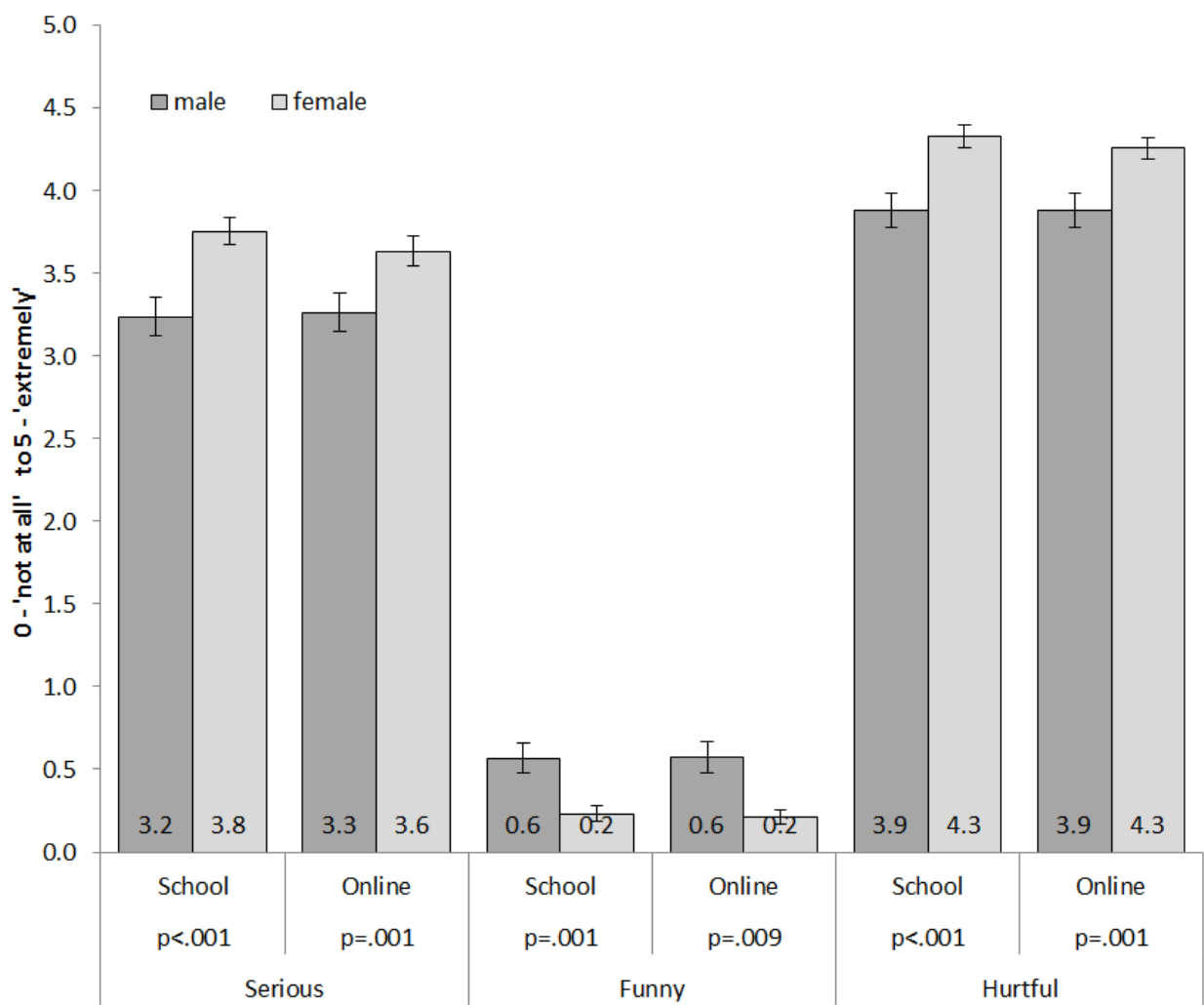


Figure 4.5. Ratings of vignette by sex and environment

Analysis of the data then examined how perceived seriousness and hurtfulness influenced respondents' ratings of bystander behaviours. For both serious and hurtful ratings, participants were divided into two equal groups, according to whether their ratings were higher or lower than the group's median ratings.

Seriousness

Participants were divided into two groups, based upon their ratings of the seriousness of the school and online vignettes, placing them in the upper or lower halves of participants (low \leq 3.5, high \geq 3.6). Respondents rating the vignettes as highly serious were more likely than their counterparts to suggest bystanders would: talk to friends, talk to a teacher, talk to parents and comfort the target in private. The only difference between school and online environments was that in the school environment participants viewing the vignette as more serious were also more likely than their counterparts to suggest the bystander would privately ask the perpetrator to stop (see Table 4.3).

A separate comparison was then undertaken between online and school responses for bystander behaviour for only those respondents who indicated both vignettes were of high seriousness. Paired samples *t*-tests ($n=107$) indicated the only differentiating bystander behaviour between the school and online environments was talking to teacher in the former environment compared to the latter ($MD= 0.3727$; $t(106)=3.342$, $p=.001$).

Table 4.3. Multivariate GLM analysing bystander behaviours in the school and online environments treating seriousness (low/high) as a between-subject variable (weighted by sex)

Behaviour	Seriousness	School			Online		
		Mean (SE)	F	p	Mean (SE)	F	p
Ignore	Low	1.39 (.12)	0.972	.325	1.50 (.12)	1.445	.230
	High	1.22 (.12)			1.30 (.12)		
Talk to friends	Low	3.02 (.12)	6.571	.011*	3.05 (.12)	4.620	.032*
	High	3.46 (.12)			3.43 (.12)		
Talk to teacher	Low	1.67 (.12)	15.292	.000*	1.44 (.13)	16.486	.000*
	High	2.41 (.13)			2.20 (.13)		
Talk to parents	Low	1.85 (.14)	6.238	.013*	1.73 (.14)	13.879	.000*
	High	2.35 (.14)			2.47 (.14)		
Publicly ask to stop	Low	2.67 (.13)	1.273	.260	2.27 (.13)	2.904	.089
	High	2.88 (.13)			2.58 (.13)		
Openly defend target	Low	2.99 (.12)	1.773	.184	2.72 (.12)	2.693	.102
	High	3.22 (.12)			3.01 (.13)		
Privately ask to stop	Low	2.96 (.13)	4.338	.038*	3.19 (.13)	.359	.549
	High	3.34 (.12)			3.30 (.13)		
Comfort in private	Low	3.46 (.11)	7.141	.008*	3.44 (.11)	9.917	.002*
	High	3.88 (.11)			3.92 (.11)		

* denotes a statistically significant result at $\alpha=.05$

Hurtfulness

Just as with seriousness, participants' ratings of hurtfulness were grouped into high and low categories based upon the median (low \leq 4.0, high \geq 4.1). Participants rating the school and online vignettes as highly hurtful were less likely to ignore the situation and more likely to talk to a teacher, talk to parents, and comfort the target in private. The main difference between school and online environments was participants suggesting bystanders would be more likely to privately ask the perpetrator to stop at school but in the online

environment bystanders would be more likely to openly defend the target (see Table 4.4).

A final comparison was then undertaken between online and school responses for respondents who indicated both vignettes were of high hurtfulness. Paired samples *t*-tests ($n=125$) indicated that online bystanders were significantly less likely to talk to a teacher ($MD= 0.217$; $t(124)=2.170$, $p=.032$) and publicly ask the perpetrator to stop ($MD= 0.238$; $t(124)=2.212$, $p=.029$) in comparison to the school environment.

Table 4.4. Multivariate GLM analysing bystander behaviours in the school and online environments treating hurtfulness (low/high) as a between-subject variable (weighted by sex)

Behaviour	Hurtfulness	School			Online		
		Mean (SE)	F	p	Mean (SE)	F	p
Ignore	Low	1.60 (.12)	11.188	.001*	1.60 (.12)	4.525	.034*
	High	1.06 (.11)			1.24 (.11)		
Talk to friends	Low	3.11 (.13)	1.876	.172	3.12 (.13)	1.456	.229
	High	3.35 (.12)			3.33 (.12)		
Talk to teacher	Low	1.63 (.14)	15.908	.000*	1.48 (.14)	7.293	.007*
	High	2.39 (.13)			2.10 (.13)		
Talk to parents	Low	1.86 (.15)	4.709	.031*	1.80 (.14)	10.377	.001*
	High	2.30 (.14)			2.34 (.14)		
Publicly ask to stop	Low	2.66 (.14)	1.465	.227	2.36 (.13)	.449	.503
	High	2.88 (.12)			2.48 (.12)		
Openly defend target	Low	3.01 (.13)	1.053	.306	2.65 (.13)	5.160	.024*
	High	3.19 (.12)			3.046 (.12)		
Privately ask to stop	Low	2.94 (.13)	4.436	.036*	3.12 (.13)	1.413	.236
	High	3.33 (.12)			3.34 (.12)		
Comfort in private	Low	3.39 (.11)	11.559	.001*	3.45 (.11)	7.317	.007*
	High	3.91 (.10)			3.87 (.10)		

* denotes a statistically significant result at $\alpha=.05$

4.5. Discussion

The aim of this study was to investigate differences in bystander behaviour between the school and online environments and we found no evidence that bystanders are more likely to ignore bullying incidents in the online environment. However, the online environment was found to be more inhibiting for public displays of bystander behaviour of any kind (i.e. publicly asking the perpetrator to stop or publicly defending the target). This is consistent with previous qualitative research suggesting that bystanders may be reluctant to publicly defend online (Patterson, Allan & Cross, 2015). There are at least two possible reasons why the online environment could inhibit public defending. The first is the fear of being negatively judged by others and/or being the next target if they bring attention to themselves (DeSmet et al., 2014; Salmivalli, 2010; Thornberg, 2007; Bellmore et al., 2012). This is particularly pertinent for our early-to-mid adolescence respondents as they are, from a developmental perspective, seeking to conform and fit in with the peer group and fear peer rejection (see e.g., Peterson, 1989). The second, unique to online environments, is that it is easier for bystanders to morally disengage when they witness negative behaviours online (Runions & Bak, 2015; Bussey, Fitzpatrick & Raman, 2015). This disengagement has the potential to gradually erode bystanders' motivations to act as active moral agents in the online environment and therefore not assist when they witness cyberbullying (see Bandura, 2002; Bussey, Fitzpatrick & Raman, 2015). Our findings suggest that the non-defending behaviour of our participants was due to moral disengagements because their lower levels of public defending were not offset by an increase in private defending. However, more research is necessary to clarify this further. Our finding about the absence of public defending in the online environment is concerning, as research in offline bullying shows that

the mental health outcomes for targets are better if they are actively defended (Sainio, Veenstra, Huitsing & Salmivalli, 2011).

Irrespective of the environment, the more bystanders regarded the bullying scenarios as serious or hurtful, the more likely they were to take some form of action, such as discussing the incident with friends, parents and teachers, or privately providing comfort to the target. Similarly, the more hurtful participants rated the scenario, the less likely they were to ignore the situation. However, it is interesting to note that even those participants who rated a scenario as highly serious and hurtful were unlikely to talk to a teacher. This highlights a potential weakness in current bystander strategies that simply promote adolescents talking to a teacher when witnessing cyberbullying. Rather, it supports previous research suggesting the importance of sensitising bystanders to the potential harm that bullying can inflict, and then encouraging positive bystander behaviours through formal classroom teaching, utilising peer discussion and active role play as an effective intervention strategy (Thornberg & Jungert, 2013; Cappadocia et al., 2012; Bussey et al. 2015; Bandura, 1997).

Our finding of significant sex differences, but no interaction between environment and sex, suggests that sex differences in bystander behaviour are constant across environments. Consistent with other research (Salmivalli, 2010; Bastiaensens et al., 2014; Oh & Hazler, 2009) we found the female participants in our study were more sensitive to the impact of bullying incidents on the target. The males in our study were generally more likely to ignore bullying behaviour, whilst females were more likely to talk to others (friends, parents and teachers) about what they observed and to comfort the target. Compared to

males, females rated the vignettes as slightly but significantly more serious and hurtful, whereas males rated the vignettes as funnier. This suggests that females may be more empathetic towards a target of bullying than males, or conversely that males are more likely to assume the target has greater resilience and/or the perpetrator's intentions were not necessarily hurtful. This latter interpretation is consistent with Patterson, Allan and Cross (2015) who reported that adolescents, especially males, described many online communications as involving humour and sarcasm but as bystanders they were not always clear if this was simply 'friendly banter' or had more hurtful intentions. Again, these data emphasise the importance of sensitising bystanders to the potential harm that bullying can inflict (Thornberg & Jungert, 2013; Cappadocia et al., 2012; Bussey et al., 2015; Bandura, 1997).

Our data support previous qualitative findings (see DeSmet et al., 2014; Patterson, Allan & Cross, 2015) that online bystanders are less likely to ignore and more likely to comfort targets if they are close friends. Likewise, irrespective of environment, a bystander was significantly more likely to both privately and publicly ask the perpetrator to stop if they were a close friend, possibly because the bystander felt less threatened than if the perpetrator was unknown to the bystander (see DeSmet et al., 2012; Cappadocia et al., 2012; DeSmet et al., 2014). Harnessing the ties of friendship in the online environment may therefore be a good intervention opportunity. This finding also highlights the vulnerability of socially isolated children in the online environment and the need for parents and carers to encourage and assist their children to build and diversify their face-to-face peer relationships as a potential buffer against all aggression, including online aggression.

A prominent finding in our study is that bystanders are more likely to approach a teacher if they witness someone being bullied offline than online. It may be the accessibility of teachers and the strong social directive to seek help when bullied at school enables bystanders to seek their help. Patterson, Allan and Cross (2016) found qualitatively that adolescent bystanders typically adhered to school rules and deferred to authority figures within the school context. Previous research indicates online bystanders do not perceive teachers as an effective support when they witness online bullying (DeSmet et al., 2014; Perren et al., 2012; Li, 2010) and that adolescents are more likely to discuss issues relating to cyberbullying with a friend (Bhat, 2008; Patterson, Allan and Cross, 2015; Lenhart et al., 2011; Smith et al., 2008; Slonje, Smith & Frisen, 2013). Indeed, recent research has revealed that teachers themselves feel insufficiently trained to handle cyberbullying, with a majority of surveyed teachers '*showing rather inadequate behavior in handling cyberbullying*', highlighting the need for more tailored approaches to teacher training on the issue of cyberbullying (DeSmet et al., 2015, p.199). Our results indicate adolescents navigate the online environment with less adult support than they receive in the offline environment. There is no significant increase in talking to parents to offset the reduction in approaching teachers, implying that without adult support adolescents are learning to engage in bystander behaviour which is more negative and lacking in critical thinking (Pangrazio, 2013). The training of peer cyber-leaders or mentors who are the same age or older, selected because of their natural empathy and leadership skills, and are trained to educate and provide guidance on cyber issues, is a potential response (Cross et al., 2015; Spears et al., 2013; Perren et al., 2012; Bhat, 2008). Cross and colleagues (2015) demonstrated the value of cyber-leaders to model, teach and encourage positive online bystander behaviour,

when provided with a consistent, supportive school environment, to maximise student engagement and effectiveness.

To best of our knowledge this is the first quantitative study to systematically compare and contrast youth perceptions of bystander behaviour in the online and school environments. Although there are precedents for using the vignette methodology (see, e.g., Turiel, 2008), we acknowledge that participants may react differently to hypothetical vignettes compared to *in situ* (see, e.g., Bellmore et al., 2012). Another potential limitation is that the dynamic of bystanders interacting with ‘strangers’ may not have been equivalent across the two environments. Pragmatically, it would be more difficult for a bystander to communicate privately with a stranger in the online environment than face-to-face, as the former would require the bystander to possess a stranger’s contact details. However, our participants considered bystanders’ interactions with strangers in much the same way in both environments, so such a consideration does not seem to have affected our results. Indeed, our findings suggest adolescent bystanders behave similarly in many regards when observing offline and online bullying. For instance, the more serious or hurtful bystanders perceive a bullying behaviour to be, the more likely they are to intervene—regardless of whether this occurs at school or online—with more females generally intervening in these situations than males. Interventions need to explicitly highlight the negative impacts on targets of all types of bullying (not just physical violence) to increase the perceived seriousness of such events, thereby engendering more positive bystander actions, especially in males.

However, our findings also suggest several important distinctions that justify the development of strategies specifically targeting adolescent bystanders in the online environment. The practical implications of these differences for designing tailored cyberbullying interventions include: the need to provide comprehensive training and support for teachers on cyberbullying to increase teachers' self-efficacy in this area and also to address bystanders' perceptions of their ineffectiveness in providing assistance; the development of formal reporting channels for young bystanders witnessing cyberbullying, whether this be through teachers or formally appointed peer cyber-leaders; and finally, the development of interventions to address the tendency of young people to only assist close friends, to ensure vulnerable young people without these networks can receive support when needed.

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Chapter 5: A review of moral disengagement mechanisms in young bystanders when witnessing bullying behaviour: implications for cyberbullying

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Contribution of authors

The candidate was responsible for development of search terms, systematic review, review of shortlisted papers, analysis and synthesis of results, paper preparation and its general discussion. Both Professors Allan and Cross provided initial guidance regarding the literature search parameters. Professor Allan provided assistance with short-listing of final papers, analysis review and the structure and clarity of the manuscript. Professor Cross assisted with the review of the manuscript.

Relevance to the thesis

This chapter presents analyses and discussion addressing Research Question 4: What can be learnt from the moral disengagement literature regarding bystanders' decisions to intervene when witnessing cyber-aggression? This is a supplementary research question developed following a review of the thesis research findings at completion of Phase 2 of the research. Moral disengagement consistently arose within Chapters 2-4 as a potential reason for online bystanders ignoring or not intervening when witnessing cyber-aggression. This chapter therefore assesses the existing empirical research regarding moral disengagement in bystanders to inform a more specific research agenda in this area to enhance future bystander interventions for cyber-aggression.

5.1. Abstract

Bystander behaviours can potentially reduce the incidence and impact of youth cyberbullying but only a minority of bystanders intervene. Bystanders may intuitively employ a socio-cognitive process called moral disengagement to minimise or evade feelings of guilt for behaving in ways they generally consider immoral or socially unacceptable. The aim of this review was to examine online and school bullying literature, with respect to bystanders' use of moral disengagement mechanisms when witnessing bullying, to inform future cyberbullying research, policies and interventions. A systematic literature review was undertaken using the search engines PsycINFO, ScienceDirect, ERIC, ISI Web of Science, and Proquest. The authors screened the papers and synthesized the relevant results. The search yielded 41 unique papers, 9 of direct relevance to the present investigation; all related to school bullying and none to cyberbullying. The results on school bullying confirmed that moral disengagement is: negatively associated with pro-social bystander behaviours; likely to increase with age; more likely in boys; affected by individuals' history, empathy, and self-efficacy; and highly influenced by socio-environmental factors, such as school culture. Moral disengagement plays an important and complex role in bystander behaviours in the school environment. Interventions are likely to be most effective for older children and boys and when designed to foster school cultures with an emphasis on pro-social behaviours. The lack of research in respect to moral disengagement by bystanders to cyberbullying indicates the need for research in this area.

Key words

Bystanders, moral disengagement, bullying, cyberbullying, interventions

5.2. Introduction

Cyberbullying is a modern phenomenon arising from recent technological advances in human communication (Olweus, 2010; O'Moore, 2012). Serious negative psychosocial and academic outcomes can result from being cyberbullied, including poorer mental health, lower self-esteem, lower educational attainment, and higher absenteeism (Cross et al., 2015a; Cross et al., 2011; Beran & Li, 2007; Patchin & Hinduja, 2010; Patchin & Hinduja, 2006). Cyberbullying is a form of aggressive behaviour utilising cyber technology to post embarrassing or hurtful material directed at another person online (Beran & Li 2007). Whilst debate surrounds the definition of cyberbullying (see Bauman, Cross and Walker 2013), we for the purposes of this paper define cyberbullying 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). Researchers' use of inconsistent definitions of cyberbullying and different methodological approaches have led to widely varying estimates of the incidence of cyber-victimisation, ranging anywhere from 4–80% (e.g., Aboujaoude, Savage, Starcevic & Salame, 2015; Smith, del Barrio & Tokunaga, 2013; Bauman, Underwood & Card, 2013; Dooley, Pyzalski & Cross, 2009; Langos, 2012; O'Moore, 2012). Cross et al. (2011) suggest cyberbullying occurs less frequently than traditional bullying, but Monks, Robinson and Worlidge (2012) argue that with the ongoing evolution of the online environment new modes of cyberbullying are likely to emerge.

In contrast to cyberbullying, face-to-face bullying behaviours in the school environment has been the focus of research for almost half a century. Early research on bullying in schools focussed exclusively on those who bullied and their targets but more

recent investigations have recognised that bullying takes place within a social context (Obermann, 2011; Zych et al., 2015). It is now recognised that bullying does not simply involve the perpetrator and target interacting in isolation but rather exists within a broader social environment that also includes peer witnesses, or 'bystanders', to these interactions who can either positively or negatively influence the bullying dynamic (Zych et al., 2015; Obermann, 2011; Salmivalli, 2010; Salmivalli et al., 1996). Naturalistic observations suggest peers are present in 85% of all school bullying incidents and can play a crucial role in reducing its incidence (Salmivalli, 2010; Obermann, 2011). Salmivalli, Voeten and Poskiparta (2011) suggest that bystander behaviours can influence the acceptability of bullying behaviours in the classroom setting and Hawkins, Pepler and Craig (2001), for instance, found that bullying behaviours can cease within as little as 10 seconds of peer intervention. Peer support following bullying can also result in improved psychosocial adjustment and less perceived victimisation by the targets of bullying (Salmivalli, 2010). Sainio and colleagues' (2011) survey of students found that targets of school bullying who reported being defended by a peer within the past two months were better adjusted, had higher self-esteem, lower levels of depression and anxiety, and higher social status than those bullied and not defended by peers. Lodge and Frydenberg (2005) also indicated that peer bystanders who intervene in bullying episodes likewise feel better about themselves afterwards. However, observational research on bullying behaviours in schools suggests only a minority of peer bystanders intervene when witnessing a bullying episode (Craig & Pepler, 1997; Craig, Pepler & Atlas, 2000; Thornberg, 2007). Thus, in an attempt to reduce bullying behaviours in the school environment, researchers and educators have focussed on developing interventions that encourage pro-social bystander behaviours, such as

comforting the target of bullying, asking the perpetrator to stop, or getting help from an adult (Polanin, Espelage & Piggott, 2011; Salmivalli, 2014).

Researchers examining bystander behaviours in school bullying make extensive use of Latané and Darley's bystander decision-making model (Darley & Latané, 1968; Latané & Nida, 1981) as well as Bandura's Social-Cognitive Theory of Moral Agency (Bandura, 1997, 1999, 2002). The initial studies by Latané and Darley (1968; Darley & Latané, 1968) explored the concept of altruism and the complex processes required of bystanders in responding to unfamiliar and ambiguous social situations. They proposed a five-step decision-making model that bystanders undertake before deciding on a course of action: 1) noticing that something is wrong in the situation; 2) recognising that that the situation requires intervention; 3) determining level of personal responsibility to intervene; 4) deciding how to intervene; and 5) having the perceived capacity to implement the chosen intervention (Latané & Darley, 1968; Darley & Latané, 1968; Latané & Nida, 1981). This bystander model has subsequently been evaluated and applied successfully to a range of social situations, including bullying and aggressive behaviour (Schwartz & Gottlieb, 1980; Fischer et al., 2011; Thornberg, 2007; Bellmore, Ma, You & Hughes, 2012; Stueve et al., 2006; Thornberg, 2010).

Bystanders face a crucial decision-making stage at Step 3 when deciding if they should intervene. At this point they become active moral agents, making ethical judgements based on their own personal beliefs of moral behaviour to determine the appropriate course of action. Thus, bystanders can decide to take action, or equally justify not taking action. It has been observed that bystanders sometimes remain passive when witnessing a bullying incident while still believing that intervening is morally right (Barchia & Bussey,

2011; Doramajian & Bukowski, 2015). This is a process Bandura (1999, 2002) called 'moral disengagement'; a set of socio-cognitive processes used by individuals to minimise or evade feelings of guilt, and to excuse themselves when committing what they would otherwise consider immoral or socially unacceptable acts (Price et al., 2014; Thornberg & Jungert, 2013). Bandura (1999, 2002) describes eight moral disengagement mechanisms. Three mechanisms involve cognitive restructuring of the event so it is not viewed as immoral through (1) *moral justification*; (2) *euphemistic labelling*; and (3) *advantageous comparison*. Two involve minimising one's active role through (4) *displacement of responsibility*; and (5) *diffusion of responsibility*. One mechanism allows the individual to avoid facing the harm caused through (6) *disregarding or distorting the consequences*. The final mechanisms are two victim-attribution strategies involving legitimising the harm through (7) *dehumanisation*; and (8) *blaming the victim*. These are described in more detail with online examples in Table 8.1.

Table 5.1. *Explanation of Moral Disengagement Mechanisms in Online Environments*

MECHANISM	DESCRIPTION	ONLINE EXAMPLE
Moral justification	Behaviour is made personally and socially acceptable by portraying it as serving a socially worthy or moral purpose	I can't speak against my friend/ friends need to stick together
Euphemistic labelling	Labelling the negative behaviour in such a way to make it more acceptable and less negative	They are just having a bit of fun, joking.
Advantageous comparison	When behaviour is contrasted with behaviour that is even worse	It's not that bad, they could have sent it to the whole school
Displacement of responsibility	Detaching oneself from personal responsibility by transferring or shifting the obligation to a higher authority	Friends should be the ones looking out for each other online, it is not others' responsibility
Diffusion of responsibility	When an individual feels part of a larger group they can share responsibility for action with others so they feel only partial responsibility	I wasn't the only one online at the time
Disregarding or distorting the consequences	Minimising, ignoring or misconstruing the harm that is inflicted	They didn't seem upset by it
Dehumanisation	Treating the person as less than human and so not qualifying for basic human rights and values	She's a real pig, look at her she's revolting and pathetic
Blaming the victim	The victim is blamed for bringing suffering on themselves	They wouldn't have posted the photo unless they wanted people to comment on it

Note. Adapted from Bandura (2002), Thornberg & Jungert (2013), Van Cleemput et al. (2014)

Research has demonstrated that some adults and children use moral disengagement mechanisms in a variety of settings, including to justify bullying and aggressive behaviour (see, e.g., Bussey, Fitzpatrick & Raman, 2015; Gini, 2006), and that bystanders use them to justify their failure to intervene in school bullying situations (Almeida, Correia, & Marinho, 2010; Menesini et al., 2003; Obermann, 2011). Thus, attempts to reduce school bullying

through increased bystander intervention must consider assisting bystanders to overcome their use of moral disengagement mechanisms.

The importance of peer bystanders in school-based interventions to reduce bullying is well established (Campbell, 2005; Kärnä, Voeten, Poskiparta, & Salmivalli, 2010; Porter & Smith-Adcock, 2011; Salmivalli et al., 2011). What remains less clear is the role bystanders may play in the online environment, as cyberbullying is still inadequately understood (Gradinger, Yanagida, Strohmeier & Spiel, 2015; Cross, Li, Smith & Monks, 2012; Campbell, 2005; Lodge & Frydenberg, 2005). This uncertainty has arisen from aspects of cyberbullying that distinguish it from traditional bullying behaviours, including the potential for anonymity, an unrestrained audience, the potential for rapid and broad dissemination of content, the permanence of information placed on the Internet, and the lack of adult presence in young people's online spaces (Langos, 2012; Patterson, Allan & Cross, 2015; Smith, del Barrio & Tokunaga, 2013; Smith, 2012). Some of these aspects may facilitate bystanders' moral disengagement by distancing the bystander from the negative impact of aggressive behaviours on the target.

Therefore the aim of this study was to conduct a systematic review to examine bystanders' use of moral disengagement mechanisms and its interplay with other factors associated with bystander behaviours, particularly when bystanders are observing behaviours in online cyber environments. This review focuses on bystander behaviours in both online and offline environments to assess the potential transferability of offline behaviours to online and mobile environments. This synthesis of bystander moral

disengagement when witnessing online and offline bullying will inform future intervention research targeting bystanders in the online environment.

5.3. Method

5.3.1. Search strategy

The process by which journal articles were systematically located and selected for analysis in this review is presented in Figure 5.1. Research articles were identified by searches of PsycINFO, ScienceDirect, ERIC, ISI Web of Science, and Proquest using the Boolean search string: [bullying OR cyberbullying] AND [bystander* OR witness*] AND [moral*] AND [intervention* OR strategy* OR polic* OR practic*]. The search terms were purposely broad to ensure studies were not excluded due to restrictive terminology. The literature search was conducted between 24 June and 13 July 2015. Only English-language articles published from 1990 onwards were selected.

Once studies were identified a process of refinement was undertaken. Duplicates were first removed. Examination of remaining papers then proceeded based upon titles and abstracts with works excluded if they focussed only on: the perpetrator, target or dyad; broader constructs such as youth violence, school aggression or violence (e.g. school shootings); and bullying in other settings such as the workplace, family or prisons. Participant samples were required to include children of school age (5–18 years old). Remaining texts were then examined in full to confirm the focus of each paper was congruent with the parameters of the review.

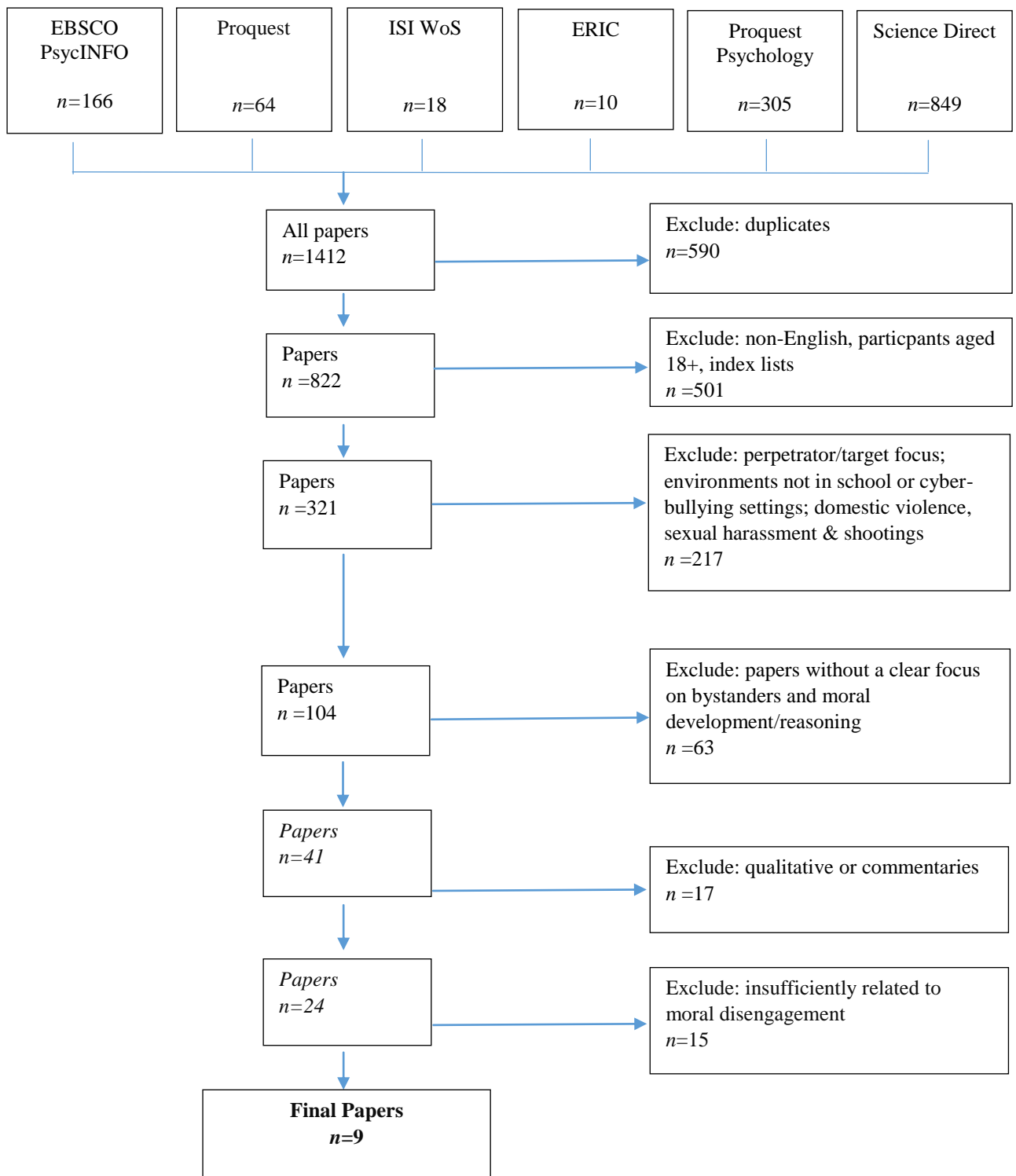


Figure 5.1. Process of selection of the sample of articles analysed

5.3.2. Data extraction

This process resulted in the identification of 41 peer-reviewed papers. Of these, 10 were not included because they contained purely qualitative data and seven were not included as they were theoretical articles, review or commentary papers containing no original data. Lastly, the authors reviewed the remaining 24 articles and by consensus identified nine articles directly related to the process of moral (dis)engagement by bystanders. These articles were reviewed independently by two researchers who made independent summations of their findings and then met to compare and discuss these until consensus was reached for each paper.

5.4. Results

5.4.1. Search results

The final list of the nine papers meeting the specified search criteria is listed with basic bibliographic properties in Table 5.2. Of these papers none investigated cyberbullying. The selected papers were all conducted in the school environment, published in seven different journals, and published between 2010 and 2015. The median size of study samples was 427 school-aged children, with a range from 130 (Doramajian & Bukowski, 2015) to 1167 (Barchia & Bussey, 2011). Samples were drawn from three continents although most originated in Europe (six studies). The nine studies had approximately equal sex representation (female mean=51.3%). Samples ranged from nine to 20 years with Bellmore, Ma, You and Hughes (2012) providing information regarding grade only and no corresponding age range. In regards to ethnic composition, the samples were predominantly Caucasian, but it should be noted that four European studies did not report

the ethnic breakdown of their participants (Almeida, Correia & Marinho, 2010; Obermann, 2011; Thornberg & Jungert, 2013; Thornberg, & Jungert, 2014). Eight of nine studies used questionnaires and cross-sectional comparisons, with two incorporating longitudinal designs over four and eight months (Barchia & Bussey, 2011; Doramajian & Bukowski, 2015). One study (Bellmore, Ma, You & Hughes, 2012) used an experimental design with between-subject comparisons. All studies used self-report measures although two also used other data sources. Doramajian & Bukowski (2015) used peer as informants and Pozzoli and Gini (2010) used teachers. Finally, five of the studies (Almeida, Correia & Marinho, 2010; Barchia & Bussey, 2011; Doramajian & Bukowski, 2015; Gini, Pozzoli & Bussey, 2015, Obermann, 2011) specifically used variations of Bandura's Moral Disengagement Scale (Bandura et al., 1996), but with inconsistent numbers of items and 4- or 5-point scales. Thornberg and Jungert (2013, 2014) developed their own measure, the Moral Disengagement in Bullying Scale, with the eighteen items developed to differentiate the theoretical constructs of the moral disengagement mechanisms as outlined by Bandura (1999). Further information regarding the moral disengagement measures used in the nine studies is provided in Table 8-2.

Table 5.2. *Outline of Papers Included in Review (n=9)*

<i>Authors</i>	<i>Country</i>	<i>Sample size</i>	<i>Sample distribution</i>	<i>Method & Measures</i>	<i>Relevant findings</i>
Almeida, Correia & Marinho (2010)	Portugal	292	10–18 yrs (M=13.05 yrs) Grade 6–9 4 classes, 1 school	Self report questionnaires: <ul style="list-style-type: none"> • Moral Disengagement Scale (adapted Hymel et al., 2005) [18 items] • Basic Empathy Scale (Jolliffe & Farrington, 2006) • Personal BJW Scale (Dalbert, 1999) • Normative Beliefs^a • Attitudes Towards Bullying^a 	Positive attitudes and defender role predicted by lower levels of moral disengagement (MD) Age correlated with MD & negative attitudes to defending. Boys: less positive attitudes to defending than girls. Normative beliefs influence individual attitudes to defender role.
Barchia & Bussey (2011)	Australia	1,167 (554 male)	12–15 yrs Grade 7–10 14 secondary schools	Longitudinal self-report survey study design (8 months): <ul style="list-style-type: none"> • Moral disengagement scale for peer aggression adapted from Bandura et al. (1996) Italian students 10-15 yrs [14 items] • Defending (Crick, 1995, 1997)^a • Aggression & victimization^a • Empathy Index (Bryant, 1982) • Self-efficacy^a; Self-efficacy for defending^a; Self-efficacy for aggression^a; Collective efficacy^a 	MD did not predict defending behaviour. (Barchia & Bussey query if due to measure used) School-level collective efficacy most important predictor. Girls and younger students defend more. Empathy associated with defending in girls only.
Bellmore, Ma, You & Hughes (2012)	U.S.A.	470	Grade 6 3 public schools	Experimental vignettes & real life recall of recent event: <ul style="list-style-type: none"> • How likely to help victim^a • How likely to ignore, keep watching, leave^a • Rate how likely to tell teacher, tell bully to stop, comfort victim^a • Self-reported peer victimization scale – modified (Neary & Joseph, 1994) • Empathic concern subscale (Davis, 1983) • Interpersonal Goal Inventory for Children (Ojanen et al., 2005) 	Relationship to victim a key factor. Diffusion of responsibility less when victim friend. Ignoring associated with trivialisation & dissociation. Passive behaviours associated with dissociation & responsibility transfer. Confronting or telling teacher associated with belief bullying is unjust & confidence action will stop event.
Doramajian & Bukowski (2015)	Canada	130 (68 male)	Grade 4–6 (M=11.36 yrs) 2 public schools	3-wave longitudinal study over 4 month period. Self & peer report. <ul style="list-style-type: none"> • Mechanisms of Abridged Moral Disengagement Scale (Bandura et al., 1996) [12 items] • Self-reported defending & passive bystanding (Pozzoli & Gini, 2010) • Peer-reported defending & passive bystanding^a (based on Salmivalli, 1996) 	MD associated with passive bystanding. Link between passivity & MD less related in boys than girls. MD in girls stabilises over time increasing passive behaviour. MD association to bystander behaviour ‘less than perfect’ suggesting other factors at play.
Gini, Pozzoli &	Italy	918	Grade 6–10 (M=14.1 yrs)	Self-report questionnaire <ul style="list-style-type: none"> • Behaviours During Aggressive Episodes (adapted Pozzoli & 	Girls reported higher defending behaviour. Aggression positively associated with passive

Bussey (2015)			49 public middle & high schools	Gini, 2010; Pozzoli et al, 2012) <ul style="list-style-type: none"> Adolescent Moral Disengagement Scale based on Bandura et al. (1996) and validated for Italian students by Caprara, Pastorelli & Bandura, 1995. [24 items] Collective Moral Disengagement (Gini et al., 2014a) 	bystanding. Aggression associated with individual MD. Effect of perceived classroom collective MD (accounts for 11.6% defending, 34.3% passivity).
Obermann (2011)	Denmark	660 (342 male)	11–14 yrs (M=12.6 yrs) Grade 6-7 38 classes, 8 state schools	Self-report questionnaire <ul style="list-style-type: none"> Moral Disengagement Scale–Danish version (Obermann, 2011) based on Bandura et al. (1996) [32 items] Olweus Bully/Victim Questionnaire–Danish (Olweus, 1996) Peer nomination – bully & victim^a 	Girls more likely defenders, boys higher MD. If bystanders consider it their responsibility & feel guilty about others being bullied will act. Unconcerned bystanders have higher MD. Defenders & guilty bystanders have low MD. Bystanders not a homogenous group.
Pozzoli & Gini (2010)	Italy	462 (246 male)	M=13.4 yrs Grade 7-8 22 classes 4 public schools	Self-report questionnaires & teacher report <ul style="list-style-type: none"> Participant Roles Questionnaire–Italian version (Salmivalli et al., 1996) Teacher-Report of Behaviors in Bullying^a Pro-Victim attitudes scale (adapted Salmivalli & Voeten, 2004) Self-Report Coping Measure (adapted Causey & Dubow, 1992; Kristensen & Smith, 2003) [34 items] Personal responsibility^a Perceived Peer Normative Pressure (adapted Rigby & Johnson, 2006) 	Passive bystanding associated with distancing strategies. Passive bystanding predicted by low personal responsibility. Defending significantly associated with high personal responsibility for intervention. Younger students & girls defend more. MD subordinate to influence of perceived peer norms.
Thornberg & Jungert (2013)	Sweden	347 (141 male)	15–20 yrs (M=17.4 yrs) 3 upper secondary schools	Self-report survey – 99 items <ul style="list-style-type: none"> Basic moral sensitivity^a Moral Disengagement^a -Post-hoc comparison Bandura (1999, 2002)[6 items] Defender self-efficacy^a Student Bystander Behavior Scale^a 	Girls: higher basic moral sensitivity (perceived harm & sympathy for victim), lower MD & defender self-efficacy (SE). MD associated with pro-bullying behaviour. Lower MD with outsider & defender behaviour. MD mediates basic moral sensitivity (perceived harm of bullying & sympathy for victim). Outsiders & defenders differed in degree of SE.
Thornberg & Jungert (2014)	Sweden	372 (193 male)	10–14 yrs (M=12.63 yrs) 7 elementary schools	Self-report questionnaire <ul style="list-style-type: none"> Moral Disengagement in Bullying Scale (Thornberg & Jungert, 2013b) [18 items] Victimization^a Bullying Behaviour^a Defending Behaviour^a 	Girls & younger more likely to defend. Defenders have low diffusion of responsibility & victim attribution. Other dimensions of MD unrelated to defending.

Key: ^a = new measure developed for study

5.5. Synthesis of the findings of the reviewed papers

We identified a number of consistent themes regarding moral disengagement by bystanders in the school environment. These included individual and internal factors that moderate moral disengagement mechanisms, such as self-efficacy, sex, age and previous bullying involvement, as well as socio-environmental factors such as friendships, behavioural expectations of peers, collective cultural norms and collective self-efficacy.

5.5.1. Moral disengagement negatively associated with pro-social bystander behaviours

First and foremost, the cross-sectional studies consistently found that moral disengagement was negatively associated with bystander pro-social behaviours (Bellmore et al., 2012; Obermann, 2011; Thornberg & Jungert, 2014). Students who defend were found to exhibit lower levels of dissociation through responsibility transfer and diffusion of responsibility and victim attribution (Bellmore et al., 2012; Thornberg & Jungert, 2014). In addition, the use of moral disengagement mechanisms was found to be positively associated with non-intervention by bystanders (Almeida, Correia & Marinho, 2010; Obermann, 2011; Pozzoli & Gini, 2010; Thornberg & Jungert, 2014). Of the two longitudinal studies, one found that high moral disengagement predicted future bystander passivity (Doramajian & Bukowski, 2015). The other (Barchia and Bussey, 2011) found no relationship between the two variables, but the authors conceded this may have been due to their measure of moral disengagement being adapted from perpetrator items, with most items providing justifications for aggressive behaviour towards peers rather than justifications for not defending. Pro-bullying bystanders were found to use moral disengagement mechanisms through trivialising the incident (i.e. disregarding or distorting the

consequences) and dissociating from the victim (i.e. diffusion of responsibility and transfer of responsibility) (Bellmore, Ma, You & Hughes, 2012; Doramajian & Bukowski, 2015; Obermann, 2011; Pozzoli & Gini, 2010).

5.5.2. Moral disengagement increases with age

Age was found to be a major influence on moral disengagement. There was a general developmental trend with older students more likely to report negative views of defending, and that they were less likely to defend targets of aggression (Almeida, Correia & Marinho, 2010; Barchia & Bussey, 2011; Pozzoli & Gini, 2010; Thornberg & Jungert, 2014).

5.5.3. Moral disengagement more likely in boys

Sex was also a major influence, with boys more likely to use moral disengagement mechanisms (Obermann, 2011; Gini, Pozzoli & Bussey, 2015; Thornberg & Jungert, 2013, 2014). Specifically, boys were more likely than girls to report euphemistic labelling, diffusion of responsibility, distorting the consequences and victim attribution (Thornberg & Jungert, 2014). Girls were generally more likely than boys to defend, with more positive attitudes toward the victim and higher levels of empathy (Almeida, Correia & Marinho, 2010; Barchia & Bussey, 2011; Doramajian & Bukowski, 2015; Gini, Pozzoli & Bussey, 2015; Pozzoli & Gini, 2010; Obermann, 2011; Thornberg & Jungert, 2014). However, female bystanders who did remain passive reported higher levels of moral disengagement than boys who remained passive (Doramajian & Bukowski, 2015).

5.5.4. Previous history, empathy and self-efficacy affect moral disengagement

Studies also found that students who had previously bullied others were more likely to remain passive and not defend others (Obermann, 2011; Pozzoli & Gini, 2010; Thornberg & Jungert, 2014). Students with low levels of bullying perpetration or who had been targets of bullying were more likely to defend (Obermann, 2011; Pozzoli & Gini, 2010). Also, students who recognised the harm experienced by targets of bullying and expressed empathy for these targets were more likely to undertake pro-social bystander behaviours such as defending, reporting the incident to an adult or comforting the target (Barchia & Bussey, 2011; Bellmore et al., 2012; Thornberg & Jungert, 2013). Likewise, students who did not consider the bullying to be harmful to the targets were more likely to morally disengage (Thornberg & Jungert, 2013). Self-efficacy was also found to predict bystander defending (Barchia & Bussey, 2011) with the findings of Thornberg and Jungert (2013) suggesting that self-efficacy was a stronger predictor of bystander defending than moral disengagement. Defender self-efficacy was found to be the difference between a bystander remaining passive or actively defending a target of bullying.

5.5.5. Socio-environmental factors influence moral reasoning

The studies reviewed also indicate that moral reasoning is influenced by socio-environmental factors. Consistent with previous qualitative research (Oh & Hazler, 2009; Thornberg et al., 2012; Forsberg, Thornberg & Samuelsson, 2014), Bellmore and colleagues (2012) found students were less likely to morally disengage when they were friends with the target of bullying. Also, the perception of peer expectations (i.e. normative beliefs) predicted the attitudes towards defending individual students (Almeida, Correia & Marinho,

2010). Over and above individual factors, students were less likely to morally disengage when they believed peers would expect them to intervene, resulting in more defending and less passivity (Pozzoli & Gini, 2010).

The influence of class and school culture was also found to influence bystander behaviours in two studies. Gini, Pozzoli and Bussey (2015) found school and classroom norms were strong influencers of moral disengagement, explaining a significant proportion of variability between sample clusters. Classroom-level collective moral disengagement, defined as the perception at the classroom level of the degree to which moral disengagement mechanisms are shared by class peers, was associated with both passive and pro-bullying bystander behaviours. Barchia and Bussey (2011) found that a collective self-efficacy belief within the school, that is, the belief that by working together school aggression could stop, was associated with higher defending across time.

5.6. Discussion

The purpose of this review was to examine the bystander research in both the online and school bullying literature, with specific reference to bystanders' use of moral disengagement mechanisms when witnessing bullying. We found no cyberbullying studies within our search parameters specifically examining the moral disengagement of bystanders. However, the results relating to school bullying highlight that bystanders' use of moral disengagement mechanisms did influence their action or inaction when witnessing school bullying. Bystanders' actions were also heavily influenced by the social norms of peers, the classroom and school culture, often over and above the influence of individual factors. The finding that this range of factors influences bystander behaviours in bullying

situations is in accordance with contemporary theories of moral and social development, suggesting young people process social situations in a complex and multifaceted way when interpreting social interactions (Killen & Rutland, 2011; Smetana, Killen & Turiel, 1991; Turiel, 2002, 2008a, 2008b).

5.6.1. Implications for cyberbullying research and interventions

This review found no papers meeting the study's search criteria investigating bystanders' use of moral disengagement mechanisms in the online environment. However, there is clear evidence from studies in the school environment that bystanders use these mechanisms to justify their passive or pro-bullying behaviours (Almeida, Correia & Marinho, 2010; Bellmore, Ma, You & Hughes, 2012; Doramajian & Bukowski, 2015; Obermann, 2011; Pozzoli & Gini, 2010; Thornberg & Jungert, 2014). There is also recent evidence that perpetrators of cyberbullying use moral disengagement mechanisms to justify their behaviour (Bussey, Fitzpatrick & Raman, 2015; DeSmet et al., 2014). This signifies the need for further research investigating moral disengagement by bystanders in the online environment. It would be particularly useful to extend to the online environment Thornberg and Jungert's (2014) research that differentiate the types of moral disengagement mechanisms bystanders employ.

This review has also highlighted the existence of key sex differences in regards to moral disengagement. Whilst the papers included in this review were all based in schools, other studies have suggested that boys are less likely to defend or become pro-social bystanders online (Patterson et al., 2015; Bastiaensens et al., 2014; Quirk & Campbell,

2014). Patterson and colleagues (2015) found in qualitative interviews with young people that the online interaction style of males includes a lot of sarcasm and humour, consistent with their offline style of interacting. However, in the online environment it is often difficult for others to accurately assess the nature of online interactions and whether aggressive or bullying behaviour is actually involved. Therefore, it will be important to learn if helping bystanders understand bullying situations in the online environment where there is the lack of visual cues, especially for male interactions, can influence the use or otherwise of moral disengagement mechanisms.

It would also be useful to research more generally whether sex differences in moral disengagement are evident in the online environment and whether these are unique or mirror those found in the school environment. Currently interventions are aimed at particular year levels or classes. However, the strong sex differences found in this review, such as boys activating moral disengagement mechanisms more often than girls and using different mechanisms, suggest that cyberaggression educational programs will need to include moral reasoning content that is particularly engaging and relevant for boys.

The review has highlighted the strong influence of the expectations of others (i.e. peers, adults) on bystander behaviours in the offline school environment. Anti-bullying normative expectations may also foster supporting behaviours among bystanders in the online environment. However, whole-school programs encouraging bystander intervention should consider explicitly including online content describing the normative expectations of others in the online environment, rather than assuming bystanders will develop this understanding from their interactions in the school environment. Specific content could

include policy and practices that build not just cognitive empathy but also affective empathy for targets of cyberbullying as well as develop collective and individual self-efficacy for pro-social behaviours in the cyber environment (Noorden, Haselager, Cillessen & Bukowski, 2015; Machackova & Pfetsch, 2016).

Our review suggests that collective norms may strongly influence school bystander behaviours (Almeida, Correia & Marinho, 2010; Pozzoli & Gini, 2010) and in particular encourage pro-social behaviours in bystanders (Gini, Pozzoli & Bussey, 2015). The development of similar collective social norms that endorse pro-social bystander behaviours and discourage bystander moral disengagement will be more difficult within the cyber environment because of the absence of direct adult influence (Patterson et al., 2015). One potential course of action is to develop strong collective norms within the school environment that, by their execution and delivery, are also embraced in the cyber environment with students actively involved in the development and implementation of school policies and practices related to expected bystander behaviours in both contexts (Cross et al., 2015; Cappadocia et al., 2012; Bussey, Fitzpatrick & Raman, 2015; Bandura, 1997, 2006).

Teachers and parents could also consider using the power of peers to influence bystanders' moral reasoning, especially as children move into adolescence, by identifying and encouraging pro-social peers to act as positive role models. With appropriate training and support provided by qualified school staff, reinforced by parents and the general community, student cyber-leaders could be utilised to model, teach and encourage positive bystander behaviours in the online environment (Cross et al., 2015). Attention must be

given to the selection of the student cyber-leaders to ensure they exhibit natural empathy and leadership skills, which will give them credibility within the peer group. Previous research suggests young people, particularly in regards to cyber issues, prefer peer to adult support, as it is perceived to be more socially relevant and legitimate and less likely to produce the dramatic over-reaction anticipated from adult involvement (Coyne & Gountsidou, 2013; Cross et al., 2015; Patterson et al., 2015; Bhat, 2008).

5.6.2. Limitations and recommendations

We identified several limitations that may be present when bystander research related to moral reasoning is conducted. The first relates to the lack of ethnic diversity. All school-based studies identified in this review were from Western European dominant cultures, which limits the generalisability of results to cultures beyond this cultural group. An important consideration when undertaking research into bystander behaviour in both the online and offline environment is to acknowledge cultural differences in conceptualisations of bullying (Hazler & Carney, 2009; Murray-Harvey, Slee & Taki, 2009; Pozzoli, Ang & Gini, 2012; Li, 2008). In addition, researchers need to recognise cultural differences in students' engagement with online technologies (Helsper, Kalmus, Hasebrink, Sagvari & de Haan, 2013; Davidson & Martellozzo, 2013; Choi, Kim, Sung, & Sohn, 2011). Finally, researchers need to consider the online environment as a new, international culture, developing its own customs unconstrained by traditional geographic boundaries or time of day.

Another limitation is the prevalence of cross-sectional bystander studies, which limits the ability to make causal inferences. Influences on bystander behaviours cannot be clearly discerned without longitudinal studies that can track the impact of social and cognitive development. This is of particular interest in regards to moral reasoning and disengagement, as they appear to change as a function of age (Rogers & Tisak, 1996; Van Cleemput, Vandebosch & Pabian, 2014).

Much of the research reviewed in this paper relied on students' self-reported behaviours, increasing the possibility of social desirability response bias. Bellmore and colleagues (2012) highlighted this concern in their study where they found students reported higher levels of passive bystander behaviour in their recall of real-life events compared to their self-predicted behaviour for hypothetical vignettes. Alternative methodologies such as experimental or simulated designs which can be designed to realistically reflect the online environment are recommended.

Finally, research in this area would benefit from the development of a gold standard measure for moral disengagement, as the lack of consistency in moral disengagement measures across the school-based studies made comparison of results problematic. Most authors in this review used Bandura et al.'s (1996) Moral Disengagement Scale (Almeida, Correia & Marinho, 2010; Barchia & Bussey, 2011; Doramajian & Bukowski, 2015; Gini, Pozzoli & Bussey, 2015; Pozzoli & Gini, 2010; Obermann, 2011; Thornberg & Jungert 2014). However, each adapted this scale differently, such that comparisons were difficult. It is therefore recommended that researchers should work towards adopting a universal scale for investigating moral disengagement.

5.7. Conclusion

This review confirmed that moral disengagement mechanisms are a common feature of passive and pro-bullying bystander behaviours in the school environment, and are particularly influenced by bystanders' sex. However, we found no bystander research has been conducted on moral disengagement in the cyber environment within our search parameters to inform the development and implementation of policies and practices that can be applied to this context. Given some of the unique elements of the online environment and their potential to influence social interactions (see Bauman, Cross & Walker, 2013; Patchin & Hinduja, 2006; Patterson et al., 2015), it is important that quality research on bystander behaviour and the use of moral disengagement mechanisms in the online environment be a focus of future research, particularly to understand sex differences in the use of moral disengagement mechanisms by bystanders.

5.8. References

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6.1. Introduction

This research was instigated by of a lack of understanding of young adolescents' bystander behaviours in the online environment. Conflicting opinions within the literature exist regarding the extent to which bystander interventions that were developed for school-based bullying are applicable to the online environment. This thesis sought to elucidate the underlying influences on bystander behaviours in the online environment, and whether these were different from those influences in the offline school environment. A mixed methods approach comprising four studies was used to reveal central factors influencing bystanders' behaviours and to systematically test these for generalisability. Each of these studies has been described in a dedicated chapter of this thesis. This final chapter presents an overall synthesis of the results through the framework of the research questions presented in Chapter 1. The strengths and limitations of the research are also explored, leading to recommendations for future research. Finally, implications for bystander interventions addressing the online environment are presented.

6.2. Summary of Findings

This section provides a brief overview of the findings of each study, in accordance with the main research questions of the thesis, and how they can be contextualised within Latané and Darley's (1968) bystander decision-making model.

6.2.1.1. Research Question 1: What factors do young adolescents think influence bystanders' decisions to intervene when witnessing cyber-aggression?

The aim of the first phase was to use a qualitative approach to elicit from young people themselves the factors they identified as influencing their behaviours in the online environment, rather than simply testing factors identified by adult experts or assuming they were the same as those identified in offline school-based bullying research. Vignette-guided, in-depth interviews revealed that young people identified the themes of *relationships*, *context*, *perceived severity*, *adults* and *exceptions* as influencing bystanders' behaviours when witnessing cyber-aggression. The *relationships* theme was a factor that young adolescents indicated would strongly influence bystanders' decisions, as they would be more likely to support close friends and family members who were being victimised than acquaintances or strangers. Participants also suggested *relationships* provided young bystanders with prior knowledge of the characteristics and history of the parties involved, and facilitated communication if further clarification was required, to allow greater understanding of the *context* in which online interactions took place. Understanding these *contexts* was identified as affecting young bystanders' decisions to respond, allowing them to take into account the sex of the parties involved and the probable motives of the aggressor, particularly as online behaviour is complicated by the lack of non-verbal cues, tone, and the aggressor's potential anonymity. Another important factor participants identified was the perceived *severity* of the online aggression towards the target. Generally, if participants thought great harm would come to targets then they would be more likely to intervene. However, only in the most severe cases did participants suggest they would involve adults, whom they were otherwise hesitant to engage with about the online environment. Finally, participants suggested a small minority of adolescent bystanders with

strong moral beliefs, and perhaps having themselves been victims of cyber-aggression, would likely intervene even if they had no relationship to the parties involved, even if the context was ambiguous and the threat not severe.

6.2.1.2. Research Question 2: What do young adolescents perceive as differences in bystanders' responses to peer aggression in the online versus offline (school) environments?

The aim of this research question was clarify adolescents' perceptions of the differences between bystander behaviours in the school versus online environments. This is of particular significance because only limited information is currently available to tailor bullying prevention interventions to the online environment. Interviews revealed that participants perceived a number of major differences between the school and online contexts that would impact upon their likely behaviours. The first difference related to the theme of *Authority*, as participants noted the apparent lack of strict rules to direct online behaviours and a commensurate lack of formal authority figures and formal reporting mechanisms to which adolescent bystanders might defer when witnessing cyber-aggression. The second difference related to the theme of *Physical presence*, where the absence of immediate physical threat to targets of cyber-aggression reduced bystanders' perceptions of the seriousness of the incident, the urgency to act and the sense of personal responsibility to intervene.

6.2.1.3. Research Question 3: What, if any, measurable differences exist between young bystanders' behaviours when witnessing online versus offline (school-based) aggression?

This research question was answered using a quantitative experimental methodology, featuring an online survey and hypothetical vignettes, to compare adolescents' bystander behaviours in the online versus school environments. Consistent with the qualitative findings, participants were less likely to report to teachers incidents of aggression they witnessed in the online compared to school environments. Participants were also consistently less likely to publically intervene in the online compared to school environment, whether this took the form of confronting the perpetrator or defending or supporting the target after the event. The results also suggested that bystanders' likelihood of intervening in both environments was consistently dependant on three main factors:

1. *Relationships*, with bystanders more likely to intervene if the target is a close friend or family member and less likely if a stranger.
2. *Severity*, with bystanders being more likely to intervene the more serious the perceived consequences to a target.
3. *Sex*, with females less likely to ignore instances of aggression, and more likely to talk to friends or adults about what they witness and provide comfort to the targets compared to males in both online and school environments.

6.2.1.4. Question 4: What can be learnt from the moral disengagement literature regarding bystanders' decisions to intervene when witnessing cyber-aggression?

Moral disengagement emerged during the course of the first three studies as a means to explain bystanders' lack of intervention when witnessing cyber-aggression. A systematic review of the empirical literature revealed no studies investigating the moral disengagement of bystanders witnessing cyber-aggression. However, many instructive parallels could be drawn from the offline school bullying literature, which confirmed that adolescents experience moral disengagement as bystanders. Studies of bullying in the school environment indicate moral disengagement by bystanders is positively associated with being male, being older and having a relationship with the aggressor (Almeida, Correia & Marinho, 2010; Barchia & Bussey, 2011; Bellmore et al., 2012; Doramajian & Bukowski, 2015; Forsberg, Thornberg & Samuelsson, 2014; Gini, Pozzoli & Bussey, 2015; Obermann, 2011; Oh & Hazler, 2009; Pozzoli & Gini, 2010; Thornberg et al., 2012; Thornberg & Jungert 2014). Moral disengagement is also negatively associated with individuals' relationships to targets, levels of empathy, self-efficacy, and previous experiences of being the target of aggressive behaviours themselves. Socio-environmental considerations, such as a school's level of tolerance for aggressive behaviours, are also powerful influences on adolescent bystanders' reliance upon moral disengagement mechanisms. Thus, although current empirical evidence provides limited direction for how moral disengagement is experienced by bystanders witnessing cyber-aggression, the associated literature for the school environment is highly consistent with the first three studies in this thesis, suggesting this may be a useful direction for future research.

6.2.2. Relevance to Latané and Darley's bystander decision-making model

The results described above will now be considered within the framework of Latané and Darley's (1968) bystander decision-making model (BDMM; see Figure 6.1 overleaf).

Step 1: Noticing something wrong.

In Step 1 of the BDMM, relationships provide a framework for adolescents, who suggest they chiefly attune to those communications involving friends and family. In contrast, communications involving lesser acquaintances and strangers are far less likely to be noticed in the first instance (see Chapters 2 and 3).

Step 2: Recognising intervention required.

During Step 2 of the BDMM, adolescent bystanders report they often judge the *severity* of the cyber-aggression by attempting to determine the motive of online aggressor(s) and whether there is ill intent (see Chapter 2). However, younger adolescent bystanders can find this difficult to determine due to the lack of verbal tone and non-verbal cues usually available during face-to-face incidents (see Chapter 3). Considering what adolescents know through existing relationships allows them to better gauge the context of a situation, particularly when the environment eliminates verbal and non-verbal cues. Relationships to the target and perpetrator also improve adolescent bystanders' knowledge of the history of the parties involved, and their tendencies for playful banter, thus enabling adolescent bystanders to better gauge ambiguous communications and judge whether these deviate from normal interactions. Having an existing relationship also enables bystanders to contact the parties involved to seek clarification about interactions of potential concern.

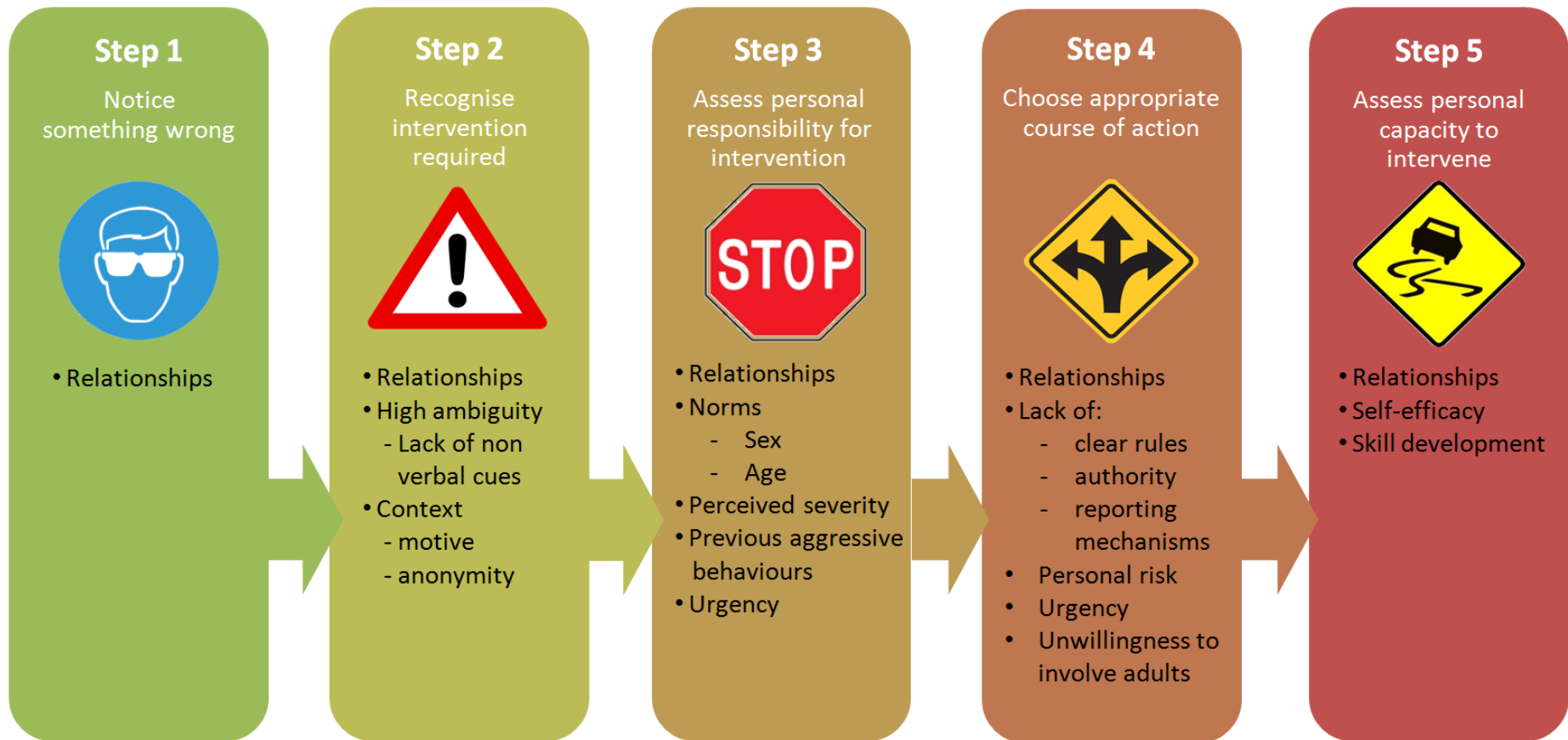


Figure 6.1. Synthesis of thesis findings as they relate to the Bystander Decision-Making Model, demonstrating factors of relevance to each stage of the model

(Adapted from Latané & Darley, 1968)

A factor that makes it harder for bystanders to determine motive—and therefore whether intervention is required—is the ability of the aggressors to remain anonymous in online environments. People who do not reveal their identity online make it difficult for others to understand the motive behind their communications, as there is no evidence from previous interactions on which to base judgements. In addition, adolescents appear to perceive less need for bystander intervention during incidents of cyber-aggression between males, as a certain level of banter is considered normal. However, young adolescent bystanders believed that young girls are more affected by negative online communications and more likely to require bystander assistance, but this should be done privately rather than publicly, which could further inflame the situation (see Chapter 2).

Step 3: Assessing level of personal responsibility.

In Step 3 of the BDMM, adolescent bystanders report being likely to use moral disengagement mechanisms to justify their avoidance of intervention (see Chapter 5 and examples in Table 6.1 overleaf). This bystander belief was affected by sex and age, with greater moral disengagement likely in male and older adolescent bystanders. This is mediated by past or existing relationships, with adolescent bystanders being more likely to intervene when witnessing cyber-aggression if the target is someone with whom they have a close relationship and for whom they feel a mutual obligation for support (see Chapters 2, 3, 4 and 5). Moral disengagement mechanisms are also more likely to be employed if adolescent bystanders have a close relationship with aggressors, enabling justification of their friends' actions and their own inaction (see Chapters 4 and 5). Adolescent bystanders also report their judgement of the severity of cyber-aggression is an important factor in their decision to intervene or not. Due to lack of physical harm in the online environment,

adolescent bystanders often downplay the perceived severity and urgency to intervene when witnessing cyber-aggression, hence feeling less personal obligation to intervene on behalf of the targets (see Chapters 2, 3 and 4).

Table 6.1. *Examples of Moral Disengagement Mechanisms in Online Environments*

Mechanism	Description	Hypothetical Online Example
Moral justification	Failing to intervene is made personally and socially acceptable by portraying it as serving a socially worthy or moral purpose	I can't speak against my friend—friends need to stick together
Euphemistic labelling	Labelling the negative behaviour in such a way to make it more acceptable and less negative	They are just having a bit of fun, just joking.
Advantageous comparison	When behaviour is contrasted with behaviour that is even worse	It's not that bad, they could have sent it to the whole school
Displacement of responsibility	Detaching oneself from personal responsibility by transferring or shifting the obligation to a higher authority	Friends should be the ones looking out for each other online, it is not others' responsibility
Diffusion of responsibility	When an individual feels part of a larger group they can share responsibility for action with others so they feel only partial responsibility	I wasn't the only one online at the time, someone else probably did something about it
Disregarding or distorting the consequences	Minimising, ignoring or misconstruing the harm that is inflicted	They didn't seem upset by it
Dehumanisation	Treating the person as less than human and so not qualifying for basic human rights and values	She's a real pig, look at her, she's revolting and pathetic
Victim attribution	Victim blamed for bringing suffering on themselves	They wouldn't have posted the photo unless they wanted people to comment on it

Note. Adapted from Bandura (2002), Thornberg & Jungert (2013), Van Cleemput et al. (2014).

Step 4: Decide on appropriate course of action.

During Step 4 of the BDMM, it is more difficult for adolescent bystanders to decide upon an appropriate course of action in the online versus school environment due to a lack of behavioural norms, clear authority figures, and formal reporting mechanisms. Hence, adolescents view many of the strategies for bystanders that are promoted in schools as being less applicable to the online environment (see Chapter 3). Adolescents especially do not consider it a useful strategy to seek help from adults, whom they generally consider naïve and prone to over-reaction concerning matters of cyber-aggression (see Chapters 3 and 4). This leaves personal intervention, and adolescent bystanders must consider the threat of also becoming targets of cyber-aggression if they publically intervene (see Chapter 2), so they often prefer to privately console targets (see Chapter 4). These hesitations are usually overcome under circumstances where the bystanders have a close relationship with the target of cyber-aggression (see Chapters 2 and 4). However, online cyber-aggression is generally viewed by adolescent bystanders as less *serious* or *urgent* than other forms of aggression (see Chapter 3). Further, delayed responses are ostensibly justified by the additional time required to investigate context, and the difficulties associated with clarifying context becoming a legitimate reason for doing nothing (see Chapter 3).

Step 5: Assess personal capacity to successfully intervene.

Step 5 of the BDMM is positively affected when a close relationship already exists between an adolescent bystander and a target of cyber-aggression, as communications are already established and allow the bystander to comfort the target in private. In contrast, students believe a bystander attempting to avoid aggressor scrutiny by comforting a stranger in private may be socially awkward and difficult if the bystander and target have

not previously communicated and shared contact details. Step 5 is also positively affected when adolescent bystanders have close relationships with perpetrators of cyber-aggression, as they feel more empowered to successfully persuade the perpetrator to stop (see Chapter 2).

During Step 5 adolescent bystanders' behaviours are also influenced by their personal beliefs in their capacity (i.e., self-efficacy) to effectively intervene when witnessing instances of cyber-aggression (Bandura, 1997; Thornberg & Jungert, 2013). This involves young bystanders not only perceiving themselves as capable of undertaking the required actions but also being aware of the appropriate strategies to intervene (Bandura, 1997). This can be problematic in an online environment devoid of clear rules, authority figures, and reporting mechanisms. As such, adolescent bystanders are effectively on their own when deciding on appropriate courses of action.

6.3. Implications and Recommendations

The present research demonstrates that adolescent bystanders perceive differences in the need to intervene in aggression in the online and offline school environments, and the best ways to do so. A key difference is that adolescent bystanders consider approaching teachers for advice and assistance to be a legitimate strategy in the school environment, but not the online environment. Schools reinforce strong social directives regarding the behaviour of adolescent bystanders who are encouraged to seek support from readily accessible teachers when bullying occurs. However, adolescent bystanders do not perceive teachers, or any other adults for that matter, to be commensurate figures of authority within online environments; a finding replicated in a number of other recent qualitative

studies (DeSmet et al., 2014; Perren et al., 2012). This is perhaps not surprising when recent research has revealed that many teachers themselves feel insufficiently trained to handle cyber-aggression (DeSmet et al., 2015; Barnes, Cross, Lester et al., 2012). If adolescent bystanders witnessing cyber-aggression are to be encouraged to seek assistance from teachers, then the teachers must be sufficiently knowledgeable and trained to be perceived as legitimate sources of assistance.

Recommendation 1: Adequately train teachers to effectively deal with instances of cyber-aggression and promoting them as legitimate points of contact for adolescent bystanders witnessing cyber-aggression.

As adolescents navigate the cyber environment with far less adult guidance than in the school environment, a challenge for parents and teachers is to help adolescents develop their own robust moral and social reasoning skills that facilitate pro-social actions online. Early adolescence is a period of development where a number of physical, hormonal, relational and educational changes occur (Fabes, Carlo, Kupanoff & Laible, 1999; Peterson, 1989). In addition, early adolescents begin developing more sophisticated cognitive skills in areas such as perspective taking and self-concept development (Fabes, Carlo, Kupanoff & Laible, 1999; Peterson, 1989). There is also a general shift in sphere of influence whereby peers become increasingly important in social interactions (Carlo, Fabes, Laible & Kupanoff, 1999, Peterson, 1989). All these developmental factors impact on the development of adolescents' moral and social reasoning skills and highlight the importance of, and challenges faced when, implementing educational interventions with this age group

(Hart & Carlo, 2005). Chapter 5 highlighted the potential influence of group norms on moral disengagement in adolescents. Therefore, it would be of value to engage students in active classroom discussions to develop normative expectations of appropriate bystander responses in the online environment. As discussed in Chapter 3, the strategy of 'social inoculation' could be used whereby students engage in simulated classroom activities and practise refutational pre-emption through role plays or computer simulations, to develop social skills by actively practising intervention strategies that develop self-efficacy and facilitate execution when necessary (Bandura, 1997; Bussey, Fitzpatrick & Raman, 2015; Cappadocia, Pepler, Cummings & Craig, 2012; Rector-Aranda & Raider-Roth, 2015; Thornberg et al., 2012). Online interactions should also be explicitly practised, rather than simply expecting adolescent bystanders to relate school experiences to the online environment.

Recommendation 2: Parents and educators develop adolescents' ability to make pro-social decisions as bystanders in online situations.

The present investigation replicated previous research findings that suggest adolescents are more likely to discuss online issues with a friend rather than a parent or other adult (Bhat, 2008; Lenhart et al., 2011; Slonje, Smith & Frisen, 2013; Smith et al., 2008). Therefore, it is important to consider a 'youth-centred' approach that actively involves adolescents in the determination and popularisation of appropriate online bystander responses. One youth-centred mechanism with promising potential is the development of 'cyber-leaders' who are peers of the same age or older who educate and

provide guidance to students and teachers on cyber issues (Cross et al., 2015; Spears et al., 2013; Perren et al., 2012; Bhat, 2008). Cyber-leaders are selected by schools for their natural empathy and leadership skills but are further trained in a consistent, supportive school environment to act as positive role models and engage with peers to guide, teach and encourage positive bystander behaviours in the online environment (Cross, Lester, Barnes, Cardoso & Hadwen, 2015; Cross & Walker, 2013; Spears et al., 2013; Spears & Kofoed, 2013; Perren et al. 2012; Bhat, 2008; Paluck, Shepherd & Aronow, 2016). The value of this approach is that young people perceive the messages communicated by formal student leaders as more socially relevant and legitimate compared to adult educators, who are perceived as scaremongers and overreactors (Paluck, Shepherd & Aronow, 2016; Coyne & Gountsidou, 2013; Cross et al., 2015). Cross and colleagues (2015) have suggested cyber-leaders can be effective in educating and encouraging positive bystander behaviours in the online environment provided they are given appropriate training and support from qualified school staff, and are supported by the general school community.

Recommendation 3: Educators, researchers and school communities should train and support student cyber-leaders as an intervention strategy for educating and promoting pro-social bystander behaviours in online environments.

A number of findings regarding bystander behaviour were consistent across both school and online environments, such as the importance of relationships, perceived harm, and sex of those involved. It is therefore still important to address these influences when developing bystander programs to specifically address cyber-aggression.

A consistent finding of the present investigation was that bystanders witnessing cyber-aggression are significantly more likely to behave pro-socially when they have a close relationship to the target. Others have reported similar results (DeSmet et al., 2014). Educators need to therefore contemplate how relationships can be developed to strengthen the pro-social responses of adolescent bystanders to cyber-aggression. Programs designed to counter cyber-aggression should aim to cultivate a school culture with a sense of mutual obligation between peers to look after each other online. Socially isolated children and adolescents are likely to be particularly vulnerable in the online environment. Their parents and carers should support such children to build and broaden face-to-face peer relationships, in both school and other contexts, to improve their social support networks as a potential shield to cyber-aggression.

Recommendation 4.1: Programs designed to counter bullying recognise the importance of strengthening relationships that can foster online defending behaviours and support for friends who are being targeted by cyber-aggression.

Recommendation 4.2: Parents should be educated about the importance of fostering and enhancing face-to-face relationships as a protective factor for adolescents in online spaces.

Recommendation 4.3: Future research should investigate the relative risk to socially isolated targets of cyber-aggression, and develop potential strategies to support these adolescents.

Participant interviews also consistently revealed the importance of relationships in providing context and assisting them in determining the motives behind cyber-aggression. Thus, as can be seen in Figure 6.1, relationships were a key factor in all five steps of the BDMM. Unfortunately, experimental manipulation to compare the relative influence of relationships in the online and offline environments was beyond the scope of the present investigation. As such, the relative magnitude of the influence of relationships in the online versus offline environments remains unclear and should be quantitatively investigated. For example, are relationships more important, less important or just the same in online versus offline environments?

Recommendation 5: Quantitative comparisons be undertaken to determine the relative influence of relationships on bystander behaviours in online and school environments.

Pro-social bystander behaviour is more likely when the incident is perceived as particularly hurtful or severe. Steffgen and colleagues (2011) found lower levels of empathy are predictive of high levels of cyber-aggression and recommended training empathic responsiveness in an effort to prevent and reduce the prevalence of these behaviours. Bystander interventions should therefore aim to sensitise adolescents to the potential negative impacts of cyber-aggression. The development of empathy for targets would increase the likelihood of adolescent bystanders providing assistance when witnessing cyber-aggression. However, interventions would need to be developed recognising that empathy is multidimensional with both cognitive and affective components (Noorden,

Haselager, Cillessen & Bukowski, 2015). For example, a recent study of bystander behaviours suggests that both cognitive and affective empathy predict pro-social bystander behaviour in offline environments, but only affective empathy influences prosocial bystander behaviour in online environments (Machackova & Pfetsch, 2016).

Recommendation 6: Adolescents be explicitly sensitised to understand the potential negative impacts of cyber-aggression on targets.

The present investigation indicated that males are more likely to play down the severity and harm of cyber-aggression and perceive it as funnier. As such, it is recommended that interventions consider including specific content that addresses and mitigates these beliefs among male adolescents.

Recommendation 7: Include content that is relatable and relevant to male adolescents to highlight the negative impacts of cyber-aggression.

The literature review of moral disengagement demonstrated the clear potential and need for more research exploring bystander intervention in online environments. It would be particularly useful to replicate in the online environment Thornberg and Jungert's (2014) research methodology distinguishing the types of moral disengagement mechanisms used by adolescent bystanders who fail to intervene or who intervene inappropriately. This research could identify the most common moral disengagement mechanisms employed by

online bystanders and be used to inform future intervention strategies that focus on challenging these mechanisms.

Recommendation 8: Conduct further research to identify specific moral disengagement mechanisms used by passive and pro-bullying bystanders in online environments.

6.4. Strengths and Limitations

6.4.1. Methodology

A strength of the present investigation was the use of a mixed methods approach, maximising the advantages and minimising the limitations of both qualitative and quantitative approaches. At the commencement of this investigation the contemporary literature was dominated by the ‘expert’ opinions of adults who were highly unlikely to have ever personally witnessed or been the targets of cyber-aggression themselves as adolescents; during these experts’ own adolescence personal communication technologies were most likely limited to landline telephones. Phase One was instigated not by preconceived notions or expectations based upon an older generation’s theoretical framework, but rather a phenomenological approach that enabled the group of interest— young people themselves—to describe their own lived experience of being witness to instances of cyber-aggression. This generated rich data providing firsthand insights into what young bystanders perceived, felt and how they reacted when witnessing cyber aggression directed towards their peers.

6.4.2. Researcher preconceptions

As a core component of the phenomenological approach, the bracketing technique was used in an attempt to isolate the adult researcher's personal experiences and interpretations of the previous literature so the themes that emerged from the young participants' interviews were genuinely their own. However, it should be acknowledged that the bracketing technique is an inexact and imperfect art and the researcher's personal perspectives are still likely to have influenced, at least in some part, the direction of query and interpretation of young people's responses when searching for the typical characteristics of the phenomenon.

6.4.3. Participant self-awareness

The phenomenological approach relies upon interviewees providing their personal perceptions of a phenomenon (Creswell, 1994). This was useful to identify a comprehensive array of motivating factors that the participants thought influenced their behaviour when witnessing instances of cyber-aggression. These factors are not always obvious or even logical to someone from a different sociocultural context, highlighting one of the strengths of the phenomenological approach. However, individuals do not always have the ability to articulate, or sometimes even have the insight, to explain their deeper motivations for behaving in any particular way. Thus it should also be acknowledged that participants' self-reported motivations may have been imperfect and incomplete accounts of their lived experiences.

6.4.4. Social desirability response bias

Great care was taken to establish rapport with the participants. Interviews were approached in a non-judgemental manner, confidentiality was assured and the interviewer had no punitive power within the formal power structure of the students' schools. However, the interviewer was an adult, imbued with implied authority through parental and teacher consent and the interviews occurred on school grounds, and operating within a sociocultural structure that typically expects obedience and deference from adolescents towards adults. As such, it is likely that the interviews occurred with a minimised, but remnant, perceived power inequity between the interviewer and interviewees. Therefore, it should be acknowledged that interviewees' responses may have been affected to some extent by social desirability response bias. For instance, claims of admirable bystander behaviours—such as intervening to defend a target—may have been exaggerated, while admissions of less laudable bystander behaviours—such as joining in with aggressors to victimise a third party—possibly went under-reported. Bellmore and colleagues (2012) highlighted this concern in their study where they found students reported higher levels of passive bystander behaviour in recall of real-life events compared to their self-reported behaviour for hypothetical vignettes.

6.4.5. School recruitment bias

Recruitment bias may have affected Phase One of the present investigation. Formal approval for all aspects of the present investigation was received from the Edith Cowan University Human Ethics Committee. However, a conscious decision was made to recruit study samples exclusively from non-government schools, to avoid significant delays

associated with permissions required by the Western Australian Department of Education Ethics Committee. This expedited the research progress but introduced a systematic recruitment bias as only a little over a third of Australian school children attend non-government schools (34.8%; Australian Bureau of Statistics, 2016). However, it is difficult to predict how this recruitment may have biased the results. Compared to government schools, non-government schools have smaller student-to-teacher ratios and their parents have higher educational attainments and average household incomes (Australian Bureau of Statistics, 2006). Non-government schools are also typically run by religious organisations so may have different value systems to secular government schools. However, Australia is a relatively egalitarian society with few class distinctions (United Nations Development Programme, 2015), such that social norms and online etiquette are unlikely to have differed significantly between students attending government versus non-government schools. Furthermore, with near-universal penetration of information technologies within Australian society (Australian Bureau of Statistics, 2014) the ceiling effect means that it is unlikely the student samples from non-government schools used in this research had much greater access to the cyber environment than their government school counterparts. Thus, while sample selection bias was systematically introduced into the present investigation, it is difficult to envisage that results would have differed greatly had government school students been proportionally represented.

Another possible effect of the non-government school recruitment bias was that a greater proportion of students participated through active consent. School socio-economic status (SES) is positively correlated to parental consent rates (Esbensen et al., 2008) and as

the SES in Australian non-government schools tends to be higher than government schools, parents whose children attend non-government schools are also more likely to provide active consent to participate in research studies than parents with children attending government schools (Shaw et al., 2015). This implies that the present sample was likely more representative of all students at each school than might otherwise have been achieved if government schools were also included in Phase One of the research. However, Shaw et al. (2015) also found that students who engage in antisocial behaviours are less likely to return active consent forms and are therefore likely to be under-represented if active consent is an ethical requirement of the research. Furthermore, Shaw et al. (2015) found that students who volunteered to participate in research are more engaged in the school system, academically competent, pro-social and conscientious. Thus, the ethical requirement for students and their parents to provide active consent for Phase One of the present research may have resulted in self-selection bias, with an under-representation of students with a history of antisocial behaviours and an over-representation of students with greater self-esteem and pro-social behaviours.

6.4.6. Use of hypothetical vignettes

Participants were asked to respond to hypothetical vignettes and report their likely behaviours as bystanders to such instances of offline school-based aggression and cyber-aggression. There is a body of research supporting the use of hypothetical vignettes for similar studies (e.g., Bellmore et al., 2012; Jenkins et al., 2010; Turiel, 2008; Barter & Renold, 2000; Schoenberg & Ravdal, 2000). However, as in Phase One, it is possible that participants were susceptible to social desirability response bias when responding to hypothetical

vignettes. Bellmore and colleagues (2012) described students reporting higher levels of passive bystander behaviours during their recall of real-life events compared to responses to hypothetical vignettes. However, what is clear from the results of the present thesis is that such comparisons would be quite crude, unless the context within which students' real-life experiences was perfectly matched for each hypothetical vignette the students reviewed. Furthermore, students' recall of real-life events may have also been affected by social desirability response bias. Turiel (2008) demonstrated that students' assessments of behaviour from hypothetical vignettes are consistent with their reported behaviours in real-life situations. So, although far from a perfect methodology, we can have some confidence that students' responses to the vignettes were not entirely contradictory to their real-life behaviours, and provided, at the very least, a consistent approximation. The ecological validity of the hypothetical vignette methodology could only be strengthened through observations of actual bystander behaviours, rather than those merely reported by students. This might be better achieved through role playing scenarios or, even better, replaced by purely observational studies of students' online behaviours.

6.4.7. Mixed methods replication of results

The objective of Phase One was to uncover widely held beliefs about the motivations for young bystanders to intervene when witnessing instances of cyber-aggression. The objective of Phase Two was to specifically test the universality of these factors by using falsifiable tests to demonstrate their generalisability beyond a small and possibly biased sample. The larger sample engaged in Phase 2 (n=292) improved the generalisability of the findings, although students were again only recruited from non-government schools and

therefore prone to some of the same biases mentioned above. The use of hypothetical vignettes also increased potential error due to lower ecological validity. Nonetheless, several universal themes from Phase One were replicated in Phase Two, such as bystanders being less likely to publically intervene or involve adults when witnessing the cyber-aggression, unless the target was a friend or likely to be seriously affected. Replication of these findings using disparate methodologies provides more compelling evidence that these findings are real and robust.

6.5. Conclusion

Whilst there is a robust body of literature investigating the role of bystanders in school bullying, an understanding of the way bystanders operate in the online environment is still emerging (Allison & Bussey, 2016). The research findings within this thesis contribute to the emerging literature by confirming that young adolescent bystanders perceive the school and online environments differently, and whilst some bystander behaviours are similar across the two environments, others are not. Compared to other spaces young people inhabit, such as schools, public places and homes, the online environment is largely devoid of adult influence. If adults want to encourage adolescents to be more effective pro-social bystanders in an online environment then it is important to recognise the unique influences on their behaviour in this environment, and tailor intervention programs accordingly. The thesis provides some clear recommendations for the development of programs to counter cyber-aggression and directions for further research to further enhance our understanding of this area.

Chapter 7: References

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Chapter 8: Appendices

Appendix A: Phase 1, School Principal Information Letter and Consent Form



Principal Name
Principal
School Name
School Address

Date

Dear **insert Principal Name**

Child Health Promotion Research Centre
School of Exercise, Biomedical & Health Science
Edith Cowan University
Bradford Street
Mt Lawley WA 6050

Phone: (08) 9370 6350
Fax: (08) 9370 6511
<http://chprc.ecu.edu.au>

Thank you for expressing an interest in the Cyber Strong Schools project when discussing it informally with Kate Hadwen. Kate has since secured a special new senior teaching and administration position in Victoria. We are very fortunate to secure the contribution of Catherine Carolan, who will be directing this project. Your school's interest in contributing to our research is appreciated. Without the support of schools we would not be able to determine and respond to the needs of families, schools and communities in relation to cyberbullying and cybersafety.

The CHPRC recently received funding from the Public Education Endowment Trust (PEET) to conduct an important research project aimed at the development of further systemic and sustainable approaches to build the capacity of school staff to educate and enable students to function safely and effectively as digital citizens. The project will provide a capacity building resource for teachers informed by feedback from school staff, students, and key stakeholders in education sectors.

There is currently limited quality research to support the decision making of legislators, policy makers, schools and families about how to help young people use communication technology in positive ways. This gap in understanding coupled with the Federal Government's national vision for ICT in schools means that without the 'right' education and support in schools (and homes); young people may become even more vulnerable to technology-based harm. Currently teachers have educational materials but most have received little or no training in how to address student behaviour in an online environment. This study will build the capacity of primary and secondary schools and staff to use resources to reduce negative and promote positive student online behaviours. Lisa Patterson, who is undertaking a PhD at ECU and is part of the Cyber Strong Schools project team, will also explore how young people navigate online social media, how this impacts on their social relationships, and what motivates young people to provide support to victims of cyber-aggression.

We would be delighted if you would consider allowing your school to participate in the Cyber Strong Schools Project from Term 1 to Term 3, 2013. Information regarding the commitment required from project schools can be found on the following pages. This research, and its instruments, has been approved by the ECU Ethics Committee. As per requirements, all researchers are required to have Working with Children Check (WWCC) and a Police Clearance.

Should you agree to participate in this project, please complete the attached form and **fax before 22 February 2013**. Your school may withdraw its involvement in this research project at any time without prejudice, we will delete upon request the information your school has provided. If you have any questions in regard to your school's involvement, please do not hesitate to contact Project Coordinator, Catherine Carolan on (08) 6304 6383 or email at c.carolan@ecu.edu.au.

Thank you for your attention to this matter and we look forward to your response.

Yours sincerely

A handwritten signature in black ink that appears to read "Donna Cross".

Donna Cross
Professor, Child Health Promotion Research Centre
Edith Cowan University, Western Australia

FACSIMILE TRANSMITTAL SHEET

TO: Catherine Carolan

FROM:

DEPARTMENT: Child Health Promotion Research
Centre

DEPARTMENT:

FAX NUMBER: (08) 9370 6511

RETURN FAX NUMBER:

DATE:

NO OF PAGES (INC. THIS ONE): 1

SUBJECT: Cyber Strong Schools Project

SCHOOL PARTICIPATION

- I understand the purpose and procedures of the Cyber Strong Schools Project.
- I have received a letter providing information about the Cyber Strong Schools Project.
- I understand that involvement in this project is voluntary and I can withdraw consent at any time without a problem.
- I understand that no personal identifying information of students or the school will be used and that all information will be stored securely for 7 years before being destroyed.
- I have been given the opportunity to ask questions.

YES, (School name) would like to participate in the Cyber Strong Schools Project in 2013.

Principal Name: _____

Principal Signature: _____

Number of students enrolled for 2013: _____

OR

NO, (School name) would NOT like to participate in the 'Cyber Strong Schools Project' in 2013.

Please fax this form to (08) 9370 6511. Thank you.

Cyber Strong Schools Project - Information about the Project

Knowledge of how to use digital and connected technology is offering youth infinitely expansive means to broaden their education and develop innovative ways to analyse, synthesise, and create new knowledge. 2012 represented an unprecedented landmark in Australian education as secondary students, and especially disadvantaged young people, will for the first-time have 1:1 access to technology.

Our extensive research has found no evidence of empirical studies to determine the best professional learning opportunities to enhance the efficacy and effectiveness of any family, school or student targeted interventions to adequately address young people's use of social media. From this perspective, **this study will be the first to develop and evaluate online teacher capacity building tools to assist them to help students effectively navigate and use social media positively to prevent and manage anti-social online behaviours.** From this perspective, this project will measure whether these capacity building tools can build teachers' self efficacy to educate and support adolescents to use social media effectively and positively. Lisa Patterson, who is undertaking a PhD at ECU and is part of the Cyber Strong Schools project team, will also explore how young people navigate online social media, how this impacts on their social relationships, and what motivates young people to provide support to victims of cyber-aggression.

The Cyber Strong Schools Project is a three-phase study. **Phase One** includes the collection of observational/descriptive data from school staff, students, and stakeholders from WA education sectors. This information will inform the development of a training resource which will be implemented during **Phase Two**. This will also include a one-day Master Class workshop aimed at skilling staff to utilise the capacity building resources in your school. **Phase Three** will evaluate the effectiveness of the training tool in the school setting. The study will conclude with the distribution of findings regarding the relevancy, feasibility, and usefulness of the online capacity building strategies.

What we will be asking of Stakeholders: Involvement will include taking part in either an interview or focus group (approximately 1 hour) regarding resource development and current gaps.

What we will be asking of Schools: Schools will be involved in all stages. In **Phase One** we will ask schools to recruit up to 8 school staff to take part in focus groups (approximately 1 hour per staff member) and to recruit students interested in participating in a Grade 5, 6, 9 and 10 one-hour focus group *or* an individual forty-minute interview for students in Grades 8, 9 or 10 held at the school. School staff who self-nominate will be approached to review the resources as they are being developed in **Phase Two**. Phase Two will also involve participating in a one day *teacher* training workshop to learn how to utilise the capacity building resources. Evaluation of the training resource in **Phase Three** will involve interviews and focus groups with both staff and students regarding the effectiveness of the resources. Interviews and focus groups will be conducted on school grounds, during school time and audio recorded or by phonecall. All researchers involved in the project will possess valid Working with Children Checks.

What we will offer in return: Stakeholders and schools involved in the project will have access to evidence-based resources at no cost, for the duration of the project, in an area currently lacking sufficient resources. These resources will address school staff's capacity to educate students on cyber safety issues pertinent to current standards of education.

For further information on The Cyber Strong Schools Project please contact Catherine Carolan, Project Coordinator, by email c.carolan@ecu.edu.au or phone (08) 6304 6383.

Cyber Strong Schools Project – Commitment required from Project Schools

What does participation in the Cyber Strong Schools Project involve?

The Cyber Strong Schools Project will be conducted in three phases, culminating in the delivery of a capacity building resource for teachers at your school. Each phase is outlined below:

Phase One (Term 1 and Term 2, 2013): One or more 60 minute focus groups and/or interviews with 8 staff to determine their needs around building staff capacity to assist students in learning about cyber safety and cyberbullying. Focus groups will be conducted on school grounds during school time. One 30 minute focus group with students in each of Grades 5, 6, 9 and 10 to ascertain what they feel they need from staff. In-depth interviews with students in Grades 8, 9 and 10 (up to 4 interviews per Grade) lasting approximately 40 minutes on *Bystanders to Cyber-aggression*.

Phase Two (Term 2, 2013): Teacher participation in a one-day Master Class workshop (format and location to be advised) aimed at skilling staff to utilise the capacity building resources in your schools. Participation will be through nomination by the School Principal. The Master Class will provide training on the resource to assist teachers to feel confident in their ability to implement cyber safety resources within the curriculum.

Phase Three (Term 2 and Term 3, 2013): One or more 30 minute staff and student interviews or focus groups conducted on school grounds and/or by telephone to seek feedback regarding the effectiveness of the resources.

What we will offer in return:

Stakeholders and schools involved in the project will have access to free evidence-based resources and implementation support for the duration of the project. Your school will receive a summary report of the project findings following the conclusion of resource development and implementation. The name of your school will be confidential and will not be included in any publications as a result of this research.

Commitment for your school:

Should your school agree to participate in this capacity building research, your school's involvement would be as follows:

- Provide assistance in identifying a person to coordinate the data collection at your school with staff and students during 2013.
- Mail home to parents of all students an information letter and consent form in Term 1, 2013. A second 'reminder' letter will also be sent to parents to encourage them to return their consent forms. Your school will receive stamped, pre-packed envelopes (containing an information letter, consent form, and reply paid envelope) for your school administrators to attach address labels and mail from your school.
- Provide one hour of class time for data collection for the students with consent to participate in a focus group or interview during Terms 1-3, 2013. This will include 2 student focus groups and up to 12 student interviews (maximum of 4 each from Grades 8, 9, 10).
- Provide approximately one hour of participating teachers' time for data collection using either focus group (composed of up to 8 staff each) or individual interviews (where necessary) to be conducted on school grounds or by telephone in Term 1, 2013.
- A private space on school grounds for conducting the focus groups and interviews.
- Allow nominated teachers to participate in a 6 hour capacity building Master Class workshop in Term 2, 2013 (format and location of the Master class to be advised).
- Provide half an hour in Term 3, 2013 for Master Class workshop attendees to complete an interview addressing usefulness of content delivered in the workshop.

Appendix B: Phase 1, Parent Information Letter and Consent Form



24 July 2013

Parent Information Letter

Project Title: **Cyber Strong Schools Project**
(incorporating Bystanders to cyber-aggression project)

Child Health Promotion Research Centre
School of Exercise, Biomedical & Health Science
Edith Cowan University
Bradford Street
Mt Lawley WA 6050

Phone: (08) 9370 6350
Fax: (08) 9370 6511
<http://chprc.ecu.edu.au>

Dear Parent / Carer

The Child Health Promotion Research Centre (CHPRC) at Edith Cowan University recently received funding from the Public Education Endowment Trust (PEET) to conduct research to develop resources and training to enhance the capacity of school staff to help students to function safely and effectively in an online environment. The project will provide resources for teachers that will be developed based on the needs of school staff, students, and key stakeholders in education sectors. Alongside this project, Lisa Patterson, who is undertaking a PhD at ECU and is part of the Cyber Strong Schools project team, will be undertaking a project which explores how young people navigate online social media, how this impacts on their social relationships, and what motivates young people to provide support to victims of cyber-aggression. Lisa's project is being supervised by myself (Prof. Donna Cross), Prof. Alfred Allan and A/Prof Stacey Waters.

Your child's school Principal has agreed for your child's school to participate in these projects. Children in Years 8, 9 and 10 will be invited to be part of an interview discussion, with their parents' consent. You will be able to indicate your preference on the attached consent form.

About the Interviews – Bystanders to Cyber-aggression

Lisa Patterson will be conducting one-on-one interviews of approximately 40 minutes with available students to discuss how young people use social media and other technologies to keep in touch with friends and others in their community. During these interviews students will be asked to relate how young people their age would respond to a particular hypothetical story about someone who witnesses a student being mean to another student online. The aim of this research is to better understand the behaviour of students who witness negative online behaviour and what influences witnesses to help victims out. Interviews will be conducted during Term 3, 2013, in a room on school grounds which ensures privacy for participants. Students will be able to terminate the interview at any time should they become uncomfortable, without prejudice.

Support services

Participation in these activities is **voluntary** and if at any time your child wishes to stop participating they may do so immediately. This will be explained to your child prior to the interviews beginning. Lisa Patterson is an experienced researcher who has a current, valid Police Clearance and Working with Children Check.

School staff from your child's school are aware of the interviews and are willing to discuss with your child issues this may raise. Your child will be made aware of this and he/she will also be given a list of support services that are available to them (see attached) and a card with information about how to contact the Kids Helpline. Should you need to access support to discuss with your child any issues which may arise, please use the contact details on the sheet attached, alternatively the following web link allows you to search for Health Practitioners who may be of assistance in your local area (<http://info.beyondblue.org.au/MAHP.html>). Please contact us if you have any questions regarding support services available.

Important Information

We will ask you and your child's permission to audio record the interview to ensure we capture all the ideas presented. These audio recordings will be transcribed after the meeting and no person will be identified in these recordings.

Your son or daughter's name will not be included in any reports resulting from this project. All information collected from your daughter's school will also remain strictly confidential. All information will be stored securely (in locked cabinets and electronically in password protected files) at the CHPRC for five years before being destroyed. Participation in this study is voluntary. You and your daughter have the right to withdraw individual consent to participate in this research at any time, without prejudice by contacting myself (Donna Cross) or Lisa Patterson (08 6304 6803). We anticipate that the results of this study will inform future pre-service and in-service teacher training and will be submitted to peer-reviewed scientific journals for publication.

Providing consent for your child to participate

Should you be willing to allow your child to participate in the research associated with the Cyber Strong Schools Project as outlined above, please complete the attached 'Parent/Carer' consent forms and return to your school by 31st July 2013. An information letter about this project has been enclosed for your child along with a consent form for him/her to sign. Your child will only be invited into the project interviews if both you as parent, and your child, consent to take part. Please discuss this with your child.

Withdrawing Consent

Participation in this study is voluntary, you may withdraw consent for your child or your child may withdraw at any time, without prejudice, by contacting Lisa Patterson on l.patterson@ecu.edu.au or by phoning 6304 6803.

Further information

If you have any questions please contact Lisa Patterson, PhD Candidate (Bystanders to Cyber-aggression project) by email l.patterson@ecu.edu.au or 6304 6803.

Yours sincerely



Donna Cross
Professor, Child and Adolescent Health
Child Health Promotion Research Centre
Edith Cowan University, Western Australia



Child Health Promotion Research Centre
 School of Exercise, Biomedical & Health Science
 Edith Cowan University
 Bradford Street
 Mt Lawley WA 6050

Phone: (08) 9370 6350
Fax: (08) 9370 6511
<http://chprc.ecu.edu.au>

Parent/ Carer Consent Form

Project title: Cyber Strong Schools Project / Bystanders to cyber-aggression

PERMISSION TO PARTICIPATE IN RESEARCH

I have read the attached information letter for parents/carers explaining the research project and have discussed it with my child. I understand my child can choose to participate or not and I have indicated my preference below.

Please complete one box below:

I GIVE PERMISSION for _____ (insert child's name)

to participate in one-on-one **interviews** with Lisa Patterson (08 6304 6803) as part of the *Bystanders to Cyber-aggression* project.

I have discussed this project with my child, who has also agreed to participate. My child understands that he / she may withdraw consent to participate at any time, without prejudice.

OR

I DO NOT GIVE PERMISSION FOR _____ (your child's name) to participate in this research.

Parent/Guardian Name: _____ **Parent/Guardian Signature:** _____

Date: _____ **School name:** _____ **Year Level:** _____

PLEASE RETURN THIS FORM TO YOUR SCHOOL BY 31 July 2013



Places to access support

- **Life Line:** (www.lifeline.org.au) 13 11 14 (cost of a local call). Provides 24 hour counselling services over the phone.
- **Kids Helpline:** (www.kidshelpline.com.au) 1800 55 1800 (free call from a land line). Provides 24 hour counselling services for young people aged 5-25 years. Counselling is available by phone, email and over the web.
- **headspace:** (www.headspace.org.au) Offers a comprehensive website and one-stop-shop services that are youth-specific.
- **Cybersmart:** (www.cybersmart.gov.au) Helps parents, teens and kids safely navigate the internet.
- **Orygen Youth Health:** (www.oyh.org.au) Ensures that young people can access high-quality mental health, and drug and alcohol services.
- **MoodGYM:** (www.moodgym.anu.edu.au) Information about Cognitive Behaviour Therapy. Free resource that requires registration.
- **The Inspire Foundation:** (www.inspire.org.au) Online programs that prevent youth suicide and improve young people's mental health and wellbeing.
- **Reach Out!:** (<http://au.reachout.com>) Web-based service which aims to inspire young people to help themselves through tough times.
- **beyondblue:** (www.beyondblue.org.au) 1300 22 4636 (cost of a local call). Provides access to information and referral advice for relevant services.
- **Itsallright:** (<http://www.itsallright.org>) is the youth section of the **SANE** organisation, helping young people who have or have friends or relative with mental illness: (www.sane.org) 1800 18SANE (1 800 18 7263; cost of a local call). Helpline phone open from 9-5 weekdays (EST) that provides information and support for anyone concerned about mental illness. Enquiries may also be made online and are usually answered within 3 working days.
- **NSW Mental Health Information Service:** (www.mentalhealth.asn.au) 1 300 794 991 (cost of a local call). Hotline open from 9-5 weekdays (EST) that provides information (including evidence based practices) and support to people affected by mental illness. The information service may also be accessed via email contact.
- Your local doctor (GP)
- Counsellors, psychologists and psychiatrists – For information on practitioners in your local area, call the beyondblueInfo line, on 1300 22 4636.

Appendix C: Phase 1, Student Information Letter and Consent Form



24 July 2013

Student Information Letter

Project Title: Cyber Strong Schools Project (incorporating Bystanders to cyber-aggression project)

Dear Student

Hello, my name is Donna Cross and I am a researcher at Edith Cowan University (ECU). We have received a research grant from the Public Education Endowment Trust (PEET) to help us understand what resources school staff need to help you to stay safe online and to teach you the skills you need to be good digital citizens. Lisa Patterson, who is undertaking a PhD at ECU and is part of the Cyber Strong Schools project team, is interested in how young people navigate online social media and how this impacts on their social relationships. Her project is titled *Bystanders to Cyberaggression*. This letter is to ask your permission to talk with you during class time at your school about what you would like to learn about and how you would like your teachers to teach you about cyber safety behaviours. Your school Principal has given us permission to ask you if we can talk with you about this issue. It is up to you if you decide to participate in this research projects.

What we are asking you to assist us with?

About the Interviews – Bystanders to Cyber-aggression:

Lisa Patterson will be meeting with a number of different students in Years 8, 9 and 10 for a one-on-one talk for approximately 40 minutes about how young people use social media and other technologies to keep in touch with friends and others in their community. During these interviews students will be asked to relate how young people their age would respond to a particular hypothetical story about someone who witnesses a student being mean to another student online. Interviews will be conducted during Term 3, 2013, in a room on school grounds which ensures discussions are private and students will be able to end the interview at any time should they wish.

It is up to you if you decide to participate in this research by completing the attached Student Consent Form.

Important Information

You do not have to assist us. If you decide you don't want to participate please don't sign the consent form. Your parent/guardian has also been sent a letter and consent form so please talk to them about this project.

If you do decide to participate with your parent's permission, we will ask you during the interview if we can record the discussion to make sure we don't forget any of your ideas. Someone from our research centre will type and store electronically all the information recorded, but no names will be recorded so no one will know who has made the comments. We keep these electronic records in our centre on secured computers for 5 years when they are deleted. Also all researchers involved in the project have Working with Children Checks.

What if you need to talk to someone about what has been discussed?

If during the discussion you talk about something you find upsetting, remember you can stop participating whenever you like. Your school teachers and parents know that this discussion is occurring and will talk with you afterwards if you would

like them to. We have also included in this information letter a list of websites and support agencies you can contact if you want to find out more information or talk with someone about anything raised in our discussion.

Agreeing to take part

If you are happy to talk with us about what needs to be developed to assist school staff to support you use online environments more safely, **please sign the consent form and give it to your parents** as soon as possible. You and your parent / guardian need to sign the consent forms before you can take a part in this project.

The next step: If you would like to be a part of this discussion please sign and return the consent form to **your parent/carer by 31st July 2013.**

Withdrawing Consent

You can decide not to participate in the interview. Just let your teacher and/or the researcher know you have decided to not be a part of this discussion.

Any Questions?

If you have any questions please contact Lisa Patterson, PhD Candidate, by email l.patterson@ecu.edu.au or 6304 6803. You can also ask questions when we arrive at your school.

Thank you for taking the time to read this letter, we are very interested in finding out more about how you think technology impacts on the relationships of young people today.

Yours sincerely



Donna Cross
Professor, Child and Adolescent Health
Child Health Promotion Research Centre
Edith Cowan University, Western Australia



Please complete and give to your parent/carer to put in their envelope

Agreeing to take part in the Cyber Strong Schools Project / Bystanders to cyber-aggression project

Please read the information letter we sent to you and discuss this information with your family before you complete this form and *give to your parent/carer*.

By ticking the FIRST box you are agreeing to take part in an individual interview discussion about the impact of social media and technology on young people.

By ticking the LAST box you are telling us you do **NOT** want to take part in the discussion.

Your participation in this research is voluntary and you may choose not to participate. If you choose to participate, any information you provide will remain confidential – this means no person at your school or within your family will be made aware of your responses. Your name will not be included in any reports resulting from this project. All information collected from you will remain strictly confidential. All information will be stored securely (in locked cabinets and electronically in password protected files) at the CHPRC for at least five years before being destroyed.

I _____ (your name) **AGREE** to take part in a one-on-one interview on Bystanders to Cyber-aggression as discussed above. **I have talked with my family about this and they have also agreed to participate.** I understand I can stop participating at any time, and that is okay.

OR

I _____ (your name) **DO NOT** want to take part in the research interviews.

Your Name: _____ Your Signature: _____

Date: _____ School Name: _____ Year Level: _____

Appendix D: Phase 1, Student Interview Protocol



Student Interview Protocol

This interview aims to explore how young people navigate online social media and related technologies and how this impacts on their social interactions with friends, classmates and others in the community. Students with consent will be engaged in this process to provide insight into their current perceptions and experiences of using online social media and other related communication technologies. Specifically this interview is interested in how young adolescents' perceive instances of cyber-aggression as a bystander and what influences their decision about how to behave when they observe cyber-aggression.

INTRODUCTION

Welcome and thank you for meeting with me today. My name is **Lisa Patterson** and I work at the Child Health Promotion Research Centre at Edith Cowan University. I wanted to talk with you today as I am interviewing a number of students in Years 8, 9 & 10 at different schools across Perth. The purpose of these interviews is to gain a better understanding of how technology has affected the friendships and social relationships of young people today. I am very interested in your ideas, comments and suggestions on this topic, so there are no right or wrong answers, just your thoughts and opinions. If at any time you would like to stop the discussion, please just let me know.

PROCEDURE

In the middle of the table (or _____) is a digital recorder. All comments you make are confidential and will only be listened to by me. At no time will anyone at your school or home hear what you have said unless this is a legal requirement. I would like to tape the conversation so I have an accurate record of what is discussed. The recorder allows me to focus on our conversation and not be distracted by trying to take notes and remember everything we have discussed. No-one will listen to these tapes except me. Your name will not be linked to what you say. Your name will not be included in any project reports. All information collected from you will remain strictly confidential. All information will be stored securely (in locked cabinets and electronically in password protected files) at the CHPRC for at least five years before being destroyed.

We have a number of issues I would like to talk about with you today, and we also must be finished within 40 minutes, so at times I may change the subject or move along to the next question. Please stop me if you have other ideas to add to the discussion.

Do you have any questions? Are you happy to keep going?

➤ ***Icebreakers/lead in***

Question: What forms of technology and social media do young people use to know what is happening with their friends, classmates and others in the community/neighbourhood.

Question: What do young people think are the best things about keeping in touch using these technologies?

Question: What do young people think are the worst things about using these forms of technology?

I'd now like to read you a short story and get your perspective on what has occurred. I will give you a copy of the story so you can follow along.

➤ ***Vignette & exploratory questions(see overleaf)***

➤ ***Closing remarks***

Thank you for your time. Our discussion today is important as it will help me to better understand how young people your age think about cyber-aggression and negative online behaviour.

Please take this Kids helpline card, it provides information if you want to talk to someone confidentially and in a safe environment. Please talk to a trusted adult, such as your parents, teacher or school counsellor, if at a later date you find yourself wanting to talk further about the issues discussed today.

Vignette: Whilst on social media one evening after dinner, Alex notices that Sam, a kid in his year, has posted really nasty remarks about Jordan, another kid in his year. Sam is openly posting that Jordan is ugly, weird and annoying.

First reaction

What do you think most young people would do if they saw what Alex saw?

Bystander behavior options

What other options would Alex have?

Prompt: identifying types of witness behavior

Right thing to do?

What do you think most people your age would think is the right thing to do when seeing something like this happen?

- Why would they think this?

Other witnesses

Does it make a difference if there are lots of other people who also see an aggressive incident online?

How do you know how many people would have seen it?

Anonymity

Do you think it would make a difference in terms of Alex's decision to take action or not if no-one knew Alex had seen the incident online?

Friend of target

Do you think Alex would act differently if Jordan was a friend? Why?

Friend of perpetrator

Do you think Alex would act differently if Sam (person bullying) was a friend? Why?

Content

What if Sam (person bullying) had posted an unkind photo or video online rather than just comments?

Perceived harm

Are there certain types of aggressive online behaviour that might encourage a witness/observer to speak up or help the person being hurt in some way?

Adults? **PARENTS**

School context

Do you think Alex would act differently if this had happened in person at school rather than online?

- What makes it the same? What makes it different?

Is there anything else you would like to tell me about what we have been discussing today?

Appendix E: Phase 2 Pilot Study, Parent Information Letter and Consent Form

5th June 2014

Parent Information Letter

Project Title: **Bystanders to Cyber-aggression project**

JOONDALUP CAMPUS

270 Joondalup Drive, Joondalup
Western Australia 6027

☎ 134 328

www.ecu.edu.au

ABN 54 361 485 361 CRICOS IPC 00279B

Dear Parent / Carer

My name is Lisa Patterson and I am undertaking a PhD within the School of Psychology and Social Sciences at Edith Cowan University. My research is exploring how young people navigate online social media, how this impacts on their social relationships, and what motivates young people to provide support to victims of cyber-aggression. The research is overseen by Professor Alfred Allan, School of Psychology at ECU; Winthrop Professor Donna Cross, Telethon Kids Institute; and Associate Professor Stacey Waters, Child Health Promotion Research Centre, ECU.

I am seeking your child's participation to test a survey tool before it is used with a larger number of students in Years 9 and 10 across Perth schools. Children can only participate with their parents' consent. You will be able to indicate your preference on the attached consent form.

About the survey

Last year, I interviewed a number of students in Year 8, 9 and 10 from schools across Perth to gain their perspectives about responding to negative behaviour occurring on social media. These interviews have helped to develop a survey which is now being completed by a larger number of students from different schools across Perth. The aim of this research is to better understand the behaviour of students who witness negative online behaviour and what influences witnesses to help victims out.

The testing of the online survey will be undertaken at your home, in a quiet location at a time convenient to you and your child. The survey is expected to take approximately 30 minutes to complete and I will seek feedback from your child on the readability and layout of the survey and believability of the stories presented for their age group. The survey will ask students to consider hypothetical stories in which they observe a student being mean to another student. Individual names will not be included on the survey and your child's individual answers will remain confidential.

Important Information

Participation in these activities is **voluntary** and if at any time your child wishes to stop participating they may do so immediately. This will be explained to your child prior to the survey beginning. Lisa Patterson is an experienced researcher who has a current, valid Police Clearance and Working with Children Check.

Your son or daughter's name will not be included in any reports resulting from this project. All information collected from your son/daughter's school will also remain strictly confidential. All information will be stored securely (in locked cabinets and electronically in password protected files) at ECU for seven years before being destroyed. Participation in this study is voluntary. We anticipate that the results of this study will inform future education interventions for young people and will be submitted to peer-reviewed scientific journals for publication.

Providing consent for your child to participate

Should you be willing to allow your child to participate in the research as outlined above, please complete the attached 'Parent/Carer' consent forms and return them to Lisa Patterson. An information letter about this project has been enclosed for your child. Your child will only be able to participate in the survey if both you as parent, and your child, consent to take part. Please discuss this with your child.

Withdrawing Consent

Participation in this study is voluntary. You and your son/daughter have the right to withdraw individual consent to participate in this research at any time, without prejudice by contacting Lisa Patterson on l.patterson@ecu.edu.au or by phoning 0401 392 409.

Further information

If you have any questions please contact Lisa Patterson, PhD Candidate by email l.patterson@ecu.edu.au or 0401 392 409.

Yours sincerely

Lisa Patterson
PhD Candidate
School of Psychology and Social Sciences
Edith Cowan University, Western Australia

Alfred Allan
Professor
School of Psychology and Social Sciences
Edith Cowan University, Western Australia

Parent/ Carer Consent Form

Project title: Bystanders to Cyber-aggression Project

PERMISSION TO PARTICIPATE IN RESEARCH

I have read the attached information letter for parents/carers explaining the research project and have discussed it with my child. I understand my child can choose to participate or not and I have indicated my preference below.

Please complete one box below:

I GIVE PERMISSION for _____ (insert child's name)

to participate in the pilot survey as part of the *Bystanders to Cyber-aggression* project.

I have discussed this project with my child, who has also agreed to participate. My child understands that he / she may withdraw consent to participate at any time, without prejudice.

OR

I DO NOT GIVE PERMISSION FOR _____ (your child's name) to participate in this research.

Parent/Guardian Name: _____

Parent/Guardian Signature: _____

Date: _____

PLEASE RETURN THIS FORM TO LISA PATTERSON

Appendix F: Phase 2 Pilot Study, Student Information Letter

5th June 2014

JOONDALUP CAMPUS

270 Joondalup Drive, Joondalup
Western Australia 6027

☎ 134 328

Student Information Letter

www.ecu.edu.au

Project Title: Bystanders to cyber-aggression project

ABN 54 361 485 361 CRICOS IPC 00279B

Dear Student

Hello, my name is Lisa Patterson and I am researcher at Edith Cowan University (ECU) undertaking a PhD. My research is interested in how young people navigate online social media and how this impacts on their social relationships. The research is being supervised by Professor Alfred Allan, School of Psychology at ECU; Winthrop Professor Donna Cross, Telethon Kids Institute; and Associate Professor Stacey Waters, Child Health Promotion Research Centre, ECU.

What we are asking you to assist us with?

This letter is to ask your permission to participate in the testing of an online survey before it is used with a larger number of students in Years 9 and 10 across Perth schools. The survey is expected to take approximately 30 minutes to complete and I will want to ask you about the readability and layout of the survey and the believability of the stories being presented to your age group. The survey will ask students to consider some stories in which they observe a student being mean to another student. The testing will take place at your home at a time convenient to you and your family. Your name will not be included on the survey and your answers will not be identifiable. Your individual answers will not be provided to your school or family.

It is up to you if you decide to participate in this research by completing the attached Student Consent Form.

Important Information

All researchers visiting the school for the survey have Working with Children Checks and Police Clearances.

You do not have to assist us. If you decide you don't want to participate please don't sign the consent form. Your parent/guardian has also been sent a letter and consent form so please talk to them about this project.

Agreeing to take part

If you are happy to assist us by taking part in the survey, **please sign the consent form and give it to your parents** as soon as possible. You and your parent / guardian need to sign the consent forms before you can take a part in this project.

Withdrawing Consent

You can decide not to participate in the survey at any time.

Any Questions?

If you have any questions please contact Lisa Patterson, PhD Candidate, by email l.patterson@ecu.edu.au or 0401 392 409. You can also ask questions at any time during the project.

Thank you for taking the time to read this letter, we are very interested in finding out more about how you think technology impacts on the relationships of young people today.

Yours sincerely

Lisa Patterson
PhD Candidate
School of Psychology and Social Sciences
Edith Cowan University, Western Australia

Alfred Allan
Professor
School of Psychology and Social Sciences
Edith Cowan University, Western Australia

Appendix G: : Phase 2 Pilot Study, Student Consent Form, Online Survey and Interview

Outline

Example of Pilot Survey

Bystanders to Cyber-aggression Project

This is an anonymous questionnaire. You should read the information below carefully as it explains fully the intention of the research project. Please ensure that you do not write your name (or any other comments that could identify you) on the survey. By completing the survey, you are consenting to take part in this research.

This survey is part of research being conducted by Lisa Patterson from Edith Cowan University. It explores how young people navigate online social media and how this impacts on their social relationships. The research is being supervised by Professor Alfred Allan, School of Psychology at ECU; Winthrop Professor Donna Cross, Telethon Kids Institute; and Associate Professor Stacey Waters, Child Health Promotion Research Centre, ECU. We are seeking your permission to participate in this online survey during class time at your school. It is expected to take approximately 20 minutes to complete. The survey will ask students to consider some stories in which they observe conflict between peers.

Your school Principal has given permission for students from your school to participate in this research but it is up to you if you decide to participate in this research project. If you don't want to answer any questions or if you don't want to complete this survey you don't have to.

All the information you provide for this survey will remain confidential. Your name will not be included on the survey and your answers will not be identifiable. No one at your school or your home will see your answers. Your answers will be stored on an external server accessible only by the researchers. All researchers visiting the school for the survey have Working with Children Checks and Police Clearances.

Your school teachers and parents know that this survey is occurring and will talk with you afterwards if you would like them to.

If you are happy to assist us by taking part in the survey, please press the “I agree” button below to move to the first page of the survey.

If you do not wish to participate in the survey please let the researcher know and she will direct you to the class activity designated by the teacher.

Note: This project has been approved by the Edith Cowan University Human Research Ethics Committee. If you have any concerns or complaints about the research project and wish to talk to an independent person, you may contact: Research Ethics Officer, Edith Cowan University, 270 Joondalup Drive, Joondalup WA 6027, Phone: (08) 6304 2170, Email: research.ethics@ecu.edu.au

I AGREE

Which of the following are you?

- Male
- Female

What is your school grade?

- Year 9
- Year 10

What is your home postcode?

In what month were you born?

- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December

In what year were you born?

- 1998
- 1999
- 2000
- 2001
- 2002

We would now like your view on the following scenario. After you have read the scenario I would like you to answer a series of questions.

Whilst online one day you notice that Ben has posted nasty messages to James saying “you are a total waste of space. The world would be a better place if you just jumped off a cliff and disappeared for good.”

Ben is a friend but not a close friend. James is a close friend of yours.

On a scale where 0 means ‘I definitely would not do this’ and 5 means ‘I definitely would do this’, how likely would you be to do the following?

- _____ Ignore the situation
 - _____ Talk to my friends about it
 - _____ Talk to a teacher about it
 - _____ Publicly and openly ask Ben to stop
 - _____ Privately ask Ben to stop
 - _____ Publicly and openly defend James
 - _____ Support or comfort James in private
 - _____ Talk to my parents about it
-

Whilst online one day you notice that Ben has posted nasty messages to James saying “you are a total waste of space. The world would be a better place if you just jumped off a cliff and disappeared for good.”

Ben is a friend but not a close friend. James is a close friend of yours.

Thinking about this scenario, please rate the following:

- _____ How serious do you think this situation is?
- _____ How funny do you think it is?
- _____ How hurtful do you think it is?

We would now like your view on the following scenario. After you have read the scenario I would like you to answer a series of questions.

Whilst at school one day you notice that Tom is saying nasty things to Lachlan including “you are a total waste of space. The world would be a better place if you just jumped off a cliff and disappeared for good.”

Tom is a friend but not a close friend. Lachlan is a close friend of yours.

On a scale where 0 means ‘I definitely would not do this’ and 5 means ‘I definitely would do this’, how likely would you be to do the following?

- _____ Ignore the situation
 - _____ Talk to my friends about it
 - _____ Talk to a teacher about it
 - _____ Publicly and openly ask Tom to stop
 - _____ Privately ask Tom to stop
 - _____ Publicly and openly defend Lachlan
 - _____ Support or comfort Lachlan
 - _____ Talk to my parents about it
-

Whilst at school one day you notice that Tom is saying nasty things to Lachlan including “you are a total waste of space. The world would be a better place if you just jumped off a cliff and disappeared for good.”

Tom is a friend but not a close friend. Lachlan is a close friend of yours.

Thinking about this scenario please rate the following:

- _____ How serious do you think this situation is?
 - _____ How funny do you think it is?
 - _____ How hurtful do you think it is?
-

Thank you for completing the survey. Please press the 'next' to submit the survey. If you have any questions or would like to talk about this further please speak to Lisa Patterson at the end of the class.

After completing online survey

Gain feedback on online survey method, prompt for any:

- problems
- things confusing or hard to navigate
- irritating/annoying

Explain considering 3 vignette options for final study. Present each one and get feedback.

Whilst online/at school one day you notice that X has posted nasty messages [saying nasty things] to Y including “you are a total waste of space. The world would be a better place if you just jumped off a cliff and disappeared for good.”

X is [a close female friend of yours]. Y is a male friend but not a close friend.

Whilst online/at school one day you notice that X has posted nasty messages [is saying nasty things] to Y including “you are a total waste of space. Your family must be so ashamed of you right now.”

X is [a stranger]. Y is a close male friend.

Whilst online/at school one day you notice that X has posted nasty messages [is saying nasty things] to Y including “you better watch out, I’ve got my eye on you and I’m going to get you when you least expect it.”

X is [a stranger]. Y is a close female friend.

Gain feedback on each vignette

After considering each vignette individually, ask explicitly which of the 3 vignettes is:

- Most realistic?
- Most severe?
- Most Hurtful?

Probe why for each

Appendix H: Phase 2, School Principal Information Letter and Consent Form

School Information Letter

Principal Name
Principal
School Name
School Address

Date



JOONDALUP CAMPUS

270 Joondalup Drive, Joondalup
Western Australia 6027
☎ 134 328

www.ecu.edu.au

ABN 54 361 485 361 CRICOS IPC 00279B

Dear [insert Principal name]

RE: Request for school participation in *Bystanders to Cyber-aggression project*

I write requesting your support for your school, [insert school name], to participate in the Bystanders to cyber-aggression project. This research is being undertaken as part of a PhD within the School of Psychology and Social Sciences at Edith Cowan University (ECU). The research is exploring how young people navigate online social media, how this impacts on their social relationships, and what motivates young people to provide support to victims of cyber-aggression. The research is overseen by Professor Alfred Allan, School of Psychology at ECU; Winthrop Professor Donna Cross, Telethon Kids Institute; and Associate Professor Stacey Waters, Child Health Promotion Research Centre, ECU.

What is required of my school?

The research involves students in Grades 9 and 10 completing an online of approximately 30 minutes (?). The survey will ask students to consider hypothetical stories in which they observe a student being mean to another student. The data collection is expected to be conducted during [insert date, e.g. Term 3, 2014] in classrooms on school grounds. Lisa Patterson will come to the school and oversee the data collection in classrooms. The exact day and time of data collection would be negotiated between the school and the researchers to ensure a day and time that are convenient with the school.

Child and parental consent will need to be obtained as per ECU ethics requirements. Assistance from the school in distributing and collecting the consent forms will be required. If your school agrees to participate, Lisa Patterson will contact you (or your nominated contact) to discuss the most convenient way of doing this (i.e. electronically, mail, or distributed to students themselves).

Important Information

We anticipate that the results of this study will inform future education interventions for young people and will be submitted to peer-reviewed scientific journals for publication. School and student's names will not be included in any publications resulting from this project. All information collected from the school will remain strictly confidential. All information will be stored securely (in locked cabinets and electronically in password protected files) at ECU for five years before being destroyed. Participation in this study is voluntary. You or your school may withdraw permission to participate in this research project at any time without prejudice. If you choose to withdraw your school's consent to participate, any school information provided will be destroyed if requested. The research, and its instruments, have been approved by ECU

Ethics Officers. As per requirements, all researchers are required to have a Working with Children Check (WWCC) and a Police Clearance.

If you are willing to participate in this research, please complete the attached school consent form, scan and email to Lisa Patterson by [insert date]. Upon receipt of the form, Lisa will contact you, or your nominated contact, to progress the project.

If you have any questions in regard to your school's involvement, please do not hesitate to contact Lisa Patterson on 0401 392 409 or by email l.patterson@ecu.edu.au.

Thank you for your attention to this matter. Without the support of schools such as yours, we would not be able to determine and respond to the needs of families, schools and communities in relation to cyberbullying and cybersafety. We look forward to your response.

Yours sincerely

Lisa Patterson
PhD Candidate
School of Psychology and Social Sciences
Edith Cowan University, Western Australia

Alfred Allan
Professor
School of Psychology and Social Sciences
Edith Cowan University, Western Australia

SCHOOL PARTICIPATION CONSENT FORM:

JOONDALUP CAMPUS

270 Joondalup Drive, Joondalup

Western Australia 6027

☎ 134 328

BYSTANDERS TO CYBER-AGGRESSION PROJECT

www.ecu.edu.au

ABN 54 361 485 361 CRICOS IPC 00279B

- I understand the purpose and procedures of the Bystanders to cyber-aggression project
- I received a letter providing information about the Bystanders to cyber-aggression project
- I understand that involvement in this project is voluntary and I can withdraw consent at any time without a problem.
- I understand that no personal identifying information of students or the school will be used and that all information will be stored securely for 7 years before being destroyed.
- I have been given the opportunity to ask questions.

<input type="checkbox"/> YES, my school is willing to participate in the Bystanders to cyber-aggression project.
Designated school contact: _____
Contact telephone number: _____
Contact email: _____
No. enrolled Grade 9: _____ No. enrolled Grade 10: _____

OR

<input type="checkbox"/> NO, my school would not like to participate in the Bystanders to cyber-aggression project.
--

Principal name: _____

Principal signature: _____

School name: _____

Date: _____

Please return this form by scanning and email to l.patterson@ecu.edu.au . Thank you

Appendix I: Phase 2, Parent Information Letter and Consent Form

12th June 2014



Parent Information Letter

JOONDALUP CAMPUS

Project Title: **Bystanders to Cyber-aggression project**

270 Joondalup Drive, Joondalup
Western Australia 6027
☎ 134 328

Dear Parent / Carer

www.ecu.edu.au

ABN 54 361 485 361 CRICOS IPC 00279B

My name is Lisa Patterson and I am undertaking a PhD within the School of Psychology and Social Sciences at Edith Cowan University. My research is exploring how young people navigate online social media, how this impacts on their social relationships, and what motivates young people to provide support to victims of cyber-aggression. The research is overseen by Professor Alfred Allan, School of Psychology at ECU; Winthrop Professor Donna Cross, Telethon Kids Institute; and Associate Professor Stacey Waters, Child Health Promotion Research Centre, ECU.

Your child's school Principal has agreed for your child's school to participate in this research. Children in Years 9 and 10 will be invited to participate in an online survey, with their parents' consent. You will be able to indicate your preference on the attached consent form.

About the survey

Last year, I interviewed a number of students in Year 8, 9 and 10 from schools across Perth to gain their perspectives about responding to negative behaviour occurring on social media. These interviews have helped to develop a survey which is now being completed by a larger number of students from different schools across Perth. The aim of this research is to better understand the behaviour of students who witness negative online behaviour and what influences witnesses to help victims out.

The online survey will be undertaken during class time by students at your child's school in Years 9 and 10. The surveys will be completed during a class period and are expected to take approximately 15 minutes to complete. The survey will ask students to consider hypothetical stories in which they observe a student being mean to another student. The surveys will be conducted during [**insert date**, e.g. Term 3, 2014] in classrooms on school grounds. Individual names will not be included on the survey and your child's individual answers will remain confidential.

Important Information

Participation in these activities is **voluntary** and if at any time your child wishes to stop participating they may do so immediately. This will be explained to your child prior to the survey beginning. Lisa Patterson is an experienced researcher who has a current, valid Police Clearance and Working with Children Check.

School staff from your child's school are aware of the survey and are willing to discuss with your child issues this may raise. Your child will also be made aware of this when the survey is completed.

Your son or daughter's name will not be included in any reports resulting from this project. All information collected from your son/daughter's school will also remain strictly confidential. All information will be stored securely (in locked cabinets and electronically in password protected files) at ECU for seven years before being destroyed. We anticipate that the results of this study will inform future education interventions for young people and will be submitted to peer-reviewed scientific journals for publication.

Providing consent for your child to participate

Should you be willing to allow your child to participate in the research as outlined above, please complete the attached 'Parent/Carer' consent forms and return them to your school as instructed. An information letter about this project has been enclosed for your child. Your child will only be able to participate in the survey if both you as parent, and your child, consent to take part. Please discuss this with your child.

Withdrawing Consent

Participation in this study is voluntary. You and your son/daughter have the right to withdraw individual consent to participate in this research at any time, without prejudice by contacting Lisa Patterson on l.patterson@ecu.edu.au or by phoning 0401 392 409.

Further information

If you have any questions please contact Lisa Patterson, PhD Candidate by email l.patterson@ecu.edu.au or 0401 392 409.

Yours sincerely

Professor
School of Psychology and Social Sciences
Edith Cowan University, Western Australia

Lisa Patterson
PhD Candidate
School of Psychology and Social Sciences
Edith Cowan University, Western Australia

Alfred Allan

Parent/ Carer Consent Form

Project title: Bystanders to Cyber-aggression Project

JOONDALUP CAMPUS
 270 Joondalup Drive, Joondalup
 Western Australia 6027
 ☎ 134 328

PERMISSION TO PARTICIPATE IN RESEARCH

I have read the attached information letter for parents/carers explaining the research project and have discussed it with my child. I understand my child can choose to participate or not and I have indicated my preference below. www.ecu.edu.au
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Please complete one box below:

I GIVE PERMISSION for _____ (insert child's name)

to participate in the online survey as part of the *Bystanders to Cyber-aggression* project.

I have discussed this project with my child, who has also agreed to participate. My child understands that he / she may withdraw consent to participate at any time, without prejudice.

OR

I DO NOT GIVE PERMISSION FOR _____ (your child's name) to participate in this research.

Parent/Guardian Name: _____ **Parent/Guardian Signature:** _____

Date: _____ **School name:** _____ **Year Level:** _____

PLEASE RETURN THIS FORM TO [INSERT] BY [DATE]

Appendix J: Phase 2, Student Information Letter and Consent Form

12th June 2014

Student Information Letter

Project Title: Bystanders to cyber-aggression project

JOONDALUP CAMPUS

270 Joondalup Drive, Joondalup
Western Australia 6027

☎ 134 328

www.ecu.edu.au

ABN 54 361 485 361 CRICOS IPC 00279B

Dear Student

Hello, my name is Lisa Patterson and I am researcher at Edith Cowan University (ECU) undertaking a PhD. My research is interested in how young people navigate online social media and how this impacts on their social relationships. The research is being supervised by Professor Alfred Allan, School of Psychology at ECU; Winthrop Professor Donna Cross, Telethon Kids Institute; and Associate Professor Stacey Waters, Child Health Promotion Research Centre, ECU.

This letter is to ask your permission to participate in an online survey during class time at your school. Your school Principal has given permission for students from your school to participate in this research if they would like but it is up to you if you decide to participate in this research project.

What we are asking you to assist us with?

The online survey will be undertaken during class time by students at your school in Years 9 and 10. The surveys will be completed during a class period and is expected to take approximately 15 minutes to complete. The survey will ask students to consider some stories in which they observe a student being mean to another student. The surveys will be conducted during Term 2, 2014 in classrooms on school grounds. Your name will not be included on the survey and your answers will not be identifiable. Your individual answers will not be provided to your school or family. It is up to you if you decide to participate in this research.

Important Information

Your parent/guardian has been sent a letter and consent form so please talk to them about this project. You do not have to assist us. If you decide you don't want to participate please don't sign the consent form.

The survey includes hypothetical stories about conflict between peers. Your school teachers and parents know that this survey is occurring and will talk with you afterwards if you would like them to. All researchers visiting the school for the survey have Working with Children Checks and Police Clearances.

Agreeing to take part

If you are happy to assist us by taking part in the survey, please return the consent form as soon as possible. Your parent / guardian needs to sign the consent form before you can take a part in this project.

The next step: If you would like to be a part of this survey please return the signed consent forms **to your school by [insert date]**.

Withdrawing Consent

You can decide not to participate in the survey at any time.

Any Questions?

If you have any questions please contact Lisa Patterson, PhD Candidate, by email l.patterson@ecu.edu.au or 0401 392 409. You can also ask questions when she arrives at your school.

Thank you for taking the time to read this letter, we are very interested in finding out more about how you think technology impacts on the relationships of young people today.

Yours sincerely

Lisa Patterson
PhD Candidate
School of Psychology and Social Sciences
Edith Cowan University, Western Australia

Alfred Allan
Professor
School of Psychology and Social Sciences
Edith Cowan University, Western Australia

Please complete and give to your parent/carer to return

Agreeing to take part in the Bystanders to Cyber-aggression survey

Please read the information letter we sent to you and discuss this information with your family before you complete this form and *give to your parent/carer*.

By ticking the FIRST box you are agreeing to take part in online survey about the impact of social media and technology on young people.

By ticking the LAST box you are telling us you do **NOT** want to take part in the survey.

Your participation in this research is voluntary and you may choose not to participate. If you choose to participate, any information you provide will remain confidential – this means no person at your school or within your family will be made aware of your responses. Your name will not be included in any reports resulting from this project. All information collected from you will remain strictly confidential. All information will be stored securely (in locked cabinets and electronically in password protected files) at Edith Cowan University for at least five years before being destroyed.

I _____ (your name) **AGREE** to take part in an online survey on Bystanders to Cyber-aggression as discussed above. **I have talked with my family about this and they have also agreed to me participating.** I understand I can stop participating at any time, and that is okay.

OR

I _____ (your name) **DO NOT** want to take part in the survey.

Your Name: _____ Your Signature: _____

Date: _____ School Name: _____ Year Level: _____

Appendix K: Phase 2, Online Survey Protocol

Online Survey Protocol

As students arrive instruct them to turn on their computers and log on to the schools network using their user name and password. Have the survey address written on the whiteboard or a visible place for all students to access.

Hello everyone. My **name** is Lisa Patterson and I am a researcher from Edith Cowan University. I am here today as your **school has agreed** to participate in on an online survey as part of my research looking at **how young people navigate online social media, how this impacts on their social relationships**. Some of you have agreed to participate in this survey.

Some students will be doing another activity. If you are one of those students please do not talk to the students doing the survey or look at what they are doing.

All the information you provide for this survey will **remain confidential**. No one at your school or your home will see your answers. Your answers will be stored on an **external server accessible only by the researchers**.

This is not a test. There are **no right or wrong answers**. Please answer all questions as **honestly** as you can. I am very interested in what you have to say and not what others around you think.

If you have **any questions, please ask me** [a researcher] and not your teacher or other students.

If you don't want to answer any questions, you don't have to and if you don't want to complete this survey you don't have to.

Before you start the survey I would like to explain the function of the buttons that you will find at the bottom of each page. To navigate between the pages **please click on the 'next' buttons**.

At the end of the survey, please press the **'submit' button to finish** the survey.

If you have any questions please raise your hand and I will come and speak to you. Otherwise you may commence the survey.

At end of time:

Unfortunately we have run out of time to complete the survey. If you have not finished answering all the questions, it is very important you **click the 'next' button** on each page until the end of the survey and then press the **'Submit'** button. Once you have done this please log off the computer.

Thank you for participating in this research. Your responses are very important to help us better understand how young people navigate online social media, how this impacts on their social relationships, and what motivates young people to provide support to victims of cyber-aggression. Please remember that if answering questions in this survey raises any issues and you would like to talk to someone, please talk to an adult you can trust, at school or at home. Thank you.

Appendix L: Phase 2, Example of Online Survey



Bystanders to Cyber-aggression Project

This is an anonymous questionnaire. You should read the information below carefully as it explains fully the intention of the research project. Please ensure that you do not write your name (or any other comments that could identify you) on the survey. By completing the survey, you are consenting to take part in this research.

This survey is part of research being conducted by Lisa Patterson from Edith Cowan University. It explores how young people navigate online social media and how this impacts on their social relationships. The research is being supervised by Professor Alfred Allan, School of Psychology at ECU; Winthrop Professor Donna Cross, Telethon Kids Institute; and Associate Professor Stacey Waters, Child Health Promotion Research Centre, ECU. We are seeking your permission to participate in this online survey. It is expected to take approximately 10 minutes to complete. The survey will ask students to consider some stories in which they observe conflict between peers.

Your school Principal has given permission for students from your school to participate in this research but it is up to you if you decide to participate in this research project. If you don't want to answer any questions or if you don't want to complete this survey you don't have to.

All the information you provide for this survey will remain confidential. Your name will not be included on the survey and your answers will not be identifiable. No one at your school or your home will see your answers. Your answers will be stored on an external server accessible only by the researchers. All researchers visiting the school for the survey have Working with Children Checks and Police Clearances.

Your school teachers and parents know that this survey is occurring and will talk with you afterwards if you would like them to.

If you do not wish to participate in the survey please let the researcher know and she will direct you to the class activity designated by the teacher.

If you are happy to assist us by taking part in the survey, please press the "I agree" button below to move to the first page of the survey.

Note: This project has been approved by the Edith Cowan University Human Research Ethics Committee. If you have any concerns or complaints about the research project and wish to talk to an independent person, you may contact: Research Ethics Officer, Edith Cowan University, 270 Joondalup Drive, Joondalup WA 6027, Phone: (08) 6304 2170, Email: research.ethics@ecu.edu.au

I AGREE

Q3 Which of the following are you?

- Male
- Female

Q134 What is your age?

- 12
- 13
- 14
- 15
- 16
- 17
- 18

Q4 What is your school grade?

- Year 9
- Year 10

Q5 What is your home postcode?

Q11 In what month were you born?

- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December

Q15 In what year were you born?

- 1997 (1)
- 1998 (2)
- 1999 (3)
- 2000 (4)
- 2001 (5)
- 2002 (8)

We would now like your view on the following scenario. After you have read the scenario I would like you to answer a series of questions.

You are at school one day when you overhear Kate yell at Lily:

“You are such a try hard. We all laugh behind your back. EVERYONE HATES YOU!!”

Kate is a friend but not a close friend. You do not know Lily.

On a scale where 0 means ‘*I definitely would not do this*’ and 5 means ‘*I definitely would do this*’, how likely would you be to do the following?

- _____ Ignore the situation
 - _____ Talk to my friends about it
 - _____ Talk to a teacher about it
 - _____ Publicly and openly ask Kate to stop
 - _____ Privately ask Kate to stop
 - _____ Publicly and openly defend Lily
 - _____ Talk to my parents about it
 - _____ Support or comfort Lily in private
-

You are at school one day when you overhear Kate yell at Lily:

“You are such a try hard. We all laugh behind your back. EVERYONE HATES YOU!!”

Kate is a friend but not a close friend. You do not know Lily.

Thinking about this scenario please rate the following: [0 means *not at all* and 5 means *extremely*]

- _____ How serious do you think this situation is?
- _____ How funny do you think it is?
- _____ How hurtful do you think it is?

We would now like your view on the following scenario. After you have read the scenario I would like you to answer a series of questions.

**One night you go online and notice Isabella has posted a message to Sophie:
“ur such a try hard. We all laugh behind ur back. EVERYONE HATES U!!”**

Isabella is a friend but not a close friend. You do not know Sophie.

On a scale where 0 means ‘I definitely would not do this’ and 5 means ‘I definitely would do this’, how likely would you be to do the following?

- _____ Ignore the situation
- _____ Talk to my friends about it
- _____ Talk to a teacher about it
- _____ Publicly and openly ask Isabella to stop
- _____ Privately ask Isabella to stop
- _____ Publicly and openly defend Sophie
- _____ Talk to my parents about it
- _____ Support or comfort Sophie in private

**One night you go online and notice Isabella has posted a message to Sophie:
“ur such a try hard. We all laugh behind ur back. EVERYONE HATES U!!”**

Isabella is a friend but not a close friend. You do not know Sophie.

Thinking about this scenario, please rate the following:

- _____ How serious do you think this situation is?
- _____ How funny do you think it is?
- _____ How hurtful do you think it is?

Thank you for completing the survey. Please press the 'next' button to submit the survey. If you have any questions or would like to talk about this further please speak to a trusted adult at home or school, contact the Kids Helpline (www.kidshelp.com.au) or you can speak to Lisa Patterson (her contact details can be found on the Student Information Letter about this research).