

**CYBER BULLYING AND ITS
RELATIONSHIP WITH SELF ESTEEM
AND QUALITY OF FRIENDSHIPS
AMONGST ADOLESCENT FEMALES
IN IRELAND**

Fiona Healy

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Supervisor: Patricia Orr

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Abstract

Research has indicated there is a relationship between bullying and levels of self esteem (O'Moore and Kirkham 2001) and quality of friendship (Flanagan et al 2008). O'Moore and Minton (2009) detailed the seriousness of cyber bullying in Ireland. Patchin and Hinduja (2010) found significantly lower levels of self esteem in victims of cyber bullying. Further examinations of these variables in relation to cyber bullying amongst adolescent females has been recommended.

Whilst this was largely a between subject quantitative cross sectional study, containing a sample of 91 girls aged between 12 – 17 years, qualitative responses to some of the questions on the Cyber Bullying Questionnaire (Smith et al, 2006) obliged the researcher to examine the key themes that emerged. Two other psychological constructs were measured using the Rosenberg Self-Esteem Questionnaire (1965) and the McGill Friendship Questionnaire – Respondent's Affection (MFQ-RA1999).

Results indicated a weak relationship between cyber bully victims and self-esteem. Quality of Friendship showed some relationship with bully victimization, although the finding was not significant for the adolescents in this study. Implications of the findings of this research are discussed and interpreted in line with previous research.

Chapter 1: Literature Review and Hypotheses

1.1 Purpose of Study

The purpose of this study is to investigate the relationship between victims and non-victims experience of cyber bullying and two psychological variables including self esteem and quality of friendship. The sample contained 91 adolescent females between 12 – 17 years.

1.2 Characteristics, Prevalence and Rates of Cyberbullying

Cyberbullying can be defined 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 can not easily defend himself or herself” (Smith et al 2006, as cited in O’Moore & Minton 2009). As such, Cyberbullies use the internet as a means by which to contact someone at any time and place and to remain anonymous. It is this anonymity and accessible nature of the internet that makes cyber bullying so damaging.

The prevalence of cyber bullying in Ireland today has become highly publicised. In 2012 three teenage girls tragically became the victims of teen suicide as a direct result of cyber bullying through popular websites sites such as ‘ask fm’. It is vitally important that research is conducted to ascertain why cyber bullying has caused such tragic consequences in our society today.

A recent EU Kids Online report (Livingstone, Haddon, Gorzig & Olafsson, 2011) shows the prevalence of Cyberbullying across Europe. This ranges, in those online, from 2% to 14%. The report also noted that online victimisation at 6% was double that of victimisation via the use of mobile phone at 3%. Taken in the context of the annual growth of internet usage year on year increasing by over 100% (Nua Internet Surveys 2002), the significance of these reported victimisations can not be understated.

A study conducted by Cotter and McGilloway (2011) looking at prevalence rates of cyber bullying amongst Irish teenagers found incidents at 17%. An international report conducted by Ybarra and Mitchell (2004) surveying 1,500 individuals found the incidents of cyber bullying amongst 10 – 17 year olds as high as 19%. O'Moore and Minton (2009), found that text messaging and bullying via web sites were the most popular means of cyber bullying. An Irish study of 3,078 post-primary students (1st – 3rd year) from 12 schools, found that one in eight girls and approximately one in ten boys indicated that they had been cyber bullied at least once in the previous three months (Minton, 2007, as cited in O'Moore & Minton 2009). This was also found to be the case in a British study by Smith et al (2006) where ninety two 11 – 16 year old students indicated that text message bullying was the most common form of bullying they had experienced. A larger UK study by NCH/Tesco, (2005, as cited in O'Moore & Minton 2009) found approximately one-fifth of 900 students in their early teens had been bullied by text messages.

Smith et al. (2006) outlined six main sub categories of Cyber-bullying as follows:

- Text-message bullying, also called SMS bullying.
- Taking photo's through mobile phone camera and distributing photos through text message or video clips.
- This may involve 'Happy slapping' attacks, in which a gang may film themselves attacking random passers-by, or targeted individuals.
- Phone call bullying via mobile phones, involving the theft and subsequent use of another person's phone in an attempt to make him or her appear culpable.
- E-mail bullying, chat-room bullying and bullying through instant messaging (IM)
- Bullying via web-sites, which may include the use of defamatory blogs, personal web-sites, on line personal polling sites, general polling sites, and also the misuse of certain social networking sites (e.g. My Space, You Tube, Facebook) for the purposes of bullying.

1.3 Comparisons Between Traditional and Cyber Methods of Bullying

Bullies tend to be generally aggressive both with their peers and also with adults. They also tend to be impulsive and to lack empathy (Olweus, 1994). Youths who engaged in traditional forms of bullying, typically physical violence and intimidation,

tended to be physically bigger and stronger than their victims. However, with Cyberbullying, these physical advantages need not be prevalent.

Adolescents today are growing up in a society where technological literacy is a part of being effective citizens in the 21st century (Berson & Berson 2003; Gurak 2001, Kubey 2002). Due to the increased levels of internet access, adolescents are being confronted with more technological challenges than any previous generation. As Schurgin et al., (2011) state, research shows that there is frequent online expression of off-line behaviours such as bullying and clique-forming that have initiated problems such as cyber bullying. Traditional methods of bullying have been defined by Olweus (1999) as when a student is exposed to repeated and over-time negative actions on the part of one or more other students. Alternatively, cyber bullying has been defined by Smith et al., (2006) “as an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly over time against a victim who cannot easily defend him or herself”.

Whilst cyber bullying shares many common traits with traditional bullying it is important to examine the dynamics and nature of this form of harassment. Vandebosch et al., (2006) summarize these differences; “With Cyber bullying, it is not necessarily the case that the victim is harassed repeatedly. A defamatory website, for example, will often stay online for a longer period of time and can, moreover, be read by many individuals. A spoken insult, by contrast, disappears from the moment it is uttered, and is only heard by those present at the time” (Vandebosch et al., 2006, p.1).

The key point that Vandebosch et al. (2006) emphasise is the repetitious and unrelenting nature of cyber bullying. Whilst the perpetrator may have only acted once, the opportunity for numerous recipients to view the material over time is the concern. Therefore the victim experiences being abused repeatedly. Another point expressed by Vandebosch et al (2006) is how technical expertise is the medium by which power is exerted in the virtual world, compared to physical strength in traditional bullying scenarios. The perpetrator is afforded the opportunity to hide behind a scene and create a false identity and thus not be held accountable for their actions. It is for these reasons that many researchers, including Patchin and Hinduja (2006) and Ybarra and Mitchell (2004) believe that cyber bullying is potentially a more harmful means of harassment. They have identified a link between cyber victimisation and depression. Research has indicated that being subjected to cyber bullying was associated with suicidal ideation Hinduja & Patchin (2010).

Whilst traditional bullying is essentially temporary in its nature, cyber abuse can last into perpetuity. The victim can get repeatedly traumatised. It causes him/her to internalise their feelings and this can lead to alcohol or substance abuse. Alternatively, traditional bullying is more confined to single instances, for example in the playground, whereas online cyber bullying can be relived and witnessed by others on line (Aoyama et al., 2007).

1.4 *Users and Vulnerability – Gender and Age Analysis*

Young people are the most prevalent users of the internet today. Due to this high level of usage, their relative immaturity and stages of development, they are therefore most vulnerable to the many forms of cyberbullying. Also, the less physical and more psychological nature of cyberbullying, as opposed to traditional forms, brings about a different gender dynamic than before.

A report by McGuckin, O'Moore and Crowley (2009), assessing internet usage amongst Irish adolescents, found that teenagers represent the highest user category compared to any other age. The 2011 CSO Census survey outlined that 87% of Irish secondary school pupils have access to the internet at home with 50% having their own personal computer. Over three-quarters are reported to have availed of on-line chatting services, compared to 44% of 9 – 12 year olds. Teenagers tend to avail of chat services specifically tailored for their own age group as opposed to sites dedicated to common themes such as music or sport. A study conducted by Microsoft (2009) found that half of Irish adolescents spend a minimum of ten hours per week on line. Mobile devices also accounted for increased usage. These figures were confirmed worldwide, with 22% of adolescents logging into social media sites such as Face book and Twitter up to ten times a day (Schurgin O'Keefe & Clarke-Pearson, 2011).

O'Moore and Minton (2009), found the one in seven students reported to having been bullied over the past couple of months. This figure was higher amongst girls

(18.1%) than for boys (12.3%). Smith et al (2006) found that girls are more likely to be cyber bully victims than boys. A report by Snell and Englander (2010) found a number of differences amongst genders in relation to cyberbullying. Adolescents, who previously would not engage in bullying types of behaviour, would it appears, engage in cyber bullying. In part this is because it is viewed as opportunistic, such that there is no personal contact and no real-time ramifications for the bully.

Research to-date, (Dehue et al., 2008; Mesch, 2009, Slonje & Smith, 2008; Vandebosch & Van Cleemput, 2008 Jackson et al., 2009; Haque & Khatibi, 2004, as cited in Snell & Englander) supports the theory that gender differences in relation to cyber bullying is skewed more towards female adolescents as being the more dominant perpetrators. Over two-thirds of respondents (72%) identified females as being the main perpetrators of online aggression. This is in contrast to previously held beliefs that males are predominant in aggression (Englander, 2008). Englander (2008) found that cyber bullying amongst females is consistent with more indirect types of bullying behaviour found in traditional bullying techniques, such as exclusion and ‘talking behind a persons back’.

Dehue et al (2008) observed how females rationalise aggression threats, name calling, rumour mills and destroying friendships as facilitated through cyberbullying. Girls indicated that when they did bully on line, it tended to be by ignoring or name calling. Girls also report being victims of cyber bullying more than boys. This may be

augmented by higher usage of mobile phones and computers for social interaction. In contrast, boys tend to play more computer games (Dowell et al., 2009, as cited in Snell & Englander). Similar research conducted by Juvonen and Gross (2008) found girls to be higher users of profile sites, blogs and mobile phones than boys. Therefore, more frequent usage may give more opportunity to engage in cyberbullying behaviours and victimisation. A further report by Slonje and Smith (2008) confirmed higher reports of victimisation amongst female adolescent than males. In addition, girls experienced being the subject of online rumours more than boys. In particular, girls experienced more problems on social networking sites, namely Facebook (Snell & Englander, 2010). The above research clearly indicates the susceptibility of young females to cyberbullying.

1.5 Specific Concerns with Cyberbullying in Ireland

Perhaps it's due to the Island state mentality and the need to connect with the broader world that leads Irish people and in particular its young people to be prolific internet users.

A recent EU Kids on line (O'Neill et al., 2011) report highlighted how young people in Ireland are amongst the leaders in terms of internet use compared to our European counterparts. Domestic internet usage in Ireland is approximately 87% compared to 62% across Europe. Access in school is comparatively similar (66% vs. 63%). Irish people access the internet more widely 'when out and about' approximately

(20% vs. 9%) largely due to access to the internet through such devices as smart phones and laptops (O'Neill, 2011).

A study of bullying behaviour in Ireland carried out during 1993 to 1994, demonstrated that children of both primary and post primary age, who were either victims or perpetrators of bullying, both demonstrated significantly lower levels of self-esteem than did children who had neither bullied or been victims of bullying.

O'Moore and Minton (2009) concluded that the "incidence of cyber bullying amongst post-primary students in Ireland is significant, and that its seriousness as an issue should not be underestimated." Additionally in a recent Irish Times report (R. McGreevy, 2012 November) Dr. McGuckin, from TCD stated that Cyber Bullying has far reaching and long-term impacts: "The image or the post can be there forever; it can be shared with thousands".

O'Moore (2012) stated 13.9% of teenagers reported that they had been cyber bullied within the last couple of months and 8.6% confessed to cyber bullying others. While 29.8% of adolescents were bullied both offline and online and 24.4% bullied others online and offline.

A separate Irish study by Guerin and Farrell (2012) from UCD (as cited in Irish Times, R McGreevy, 2012 November), researched cyber bullying amongst friends at a community school in Dublin suburb. They found that cyber banter can induce cyber bullying particularly if the material was personal or sensitive in nature. Those who

participated in the study believed cyber bullying was an easier and safer method of bullying because there was no danger of immediate physical retaliation. Several female participants believed cyber bullying within a group was more likely to occur between girls because girls were more likely to be 'bitchy' and to put others down to make themselves feel better.

The negative effects experienced by victims of cyber bullying such as anxiety, depression and low self esteem can induce individuals in more extreme cases, to harm themselves. More recently, teen suicide as a direct cause of cyber bullying has been highly publicised in the media. Tragic cases such as Phoebe Prince, a 15 year Irish girl who moved to the United States with her family to begin a new life, was found hung in the stairwell of her home in Western Massachusetts on January 2010 after being taunted and bullied by classmates (New York Times, 2010). Prince had emigrated from Ireland in 2009. The root cause of the bullying was a brief relationship with a senior boy who was considered popular. Fellow classmates began victimising her and after several months of enduring harassment and after receiving no assistance from adults, Phoebe committed suicide.

In Ireland a similar case unfolded when Erin Gallagher, a 13 year old girl from Co. Donegal took her own life on 9th October, 2012 after being targeted for a number of months in a campaign of bullying and intimidation. The method of harassment was conducted through Facebook. It was found that Erin had previously tried to commit suicide and was attending a psychologist. Her condition had deteriorated after returning

to school in September and suffering an onslaught of cyber bullying (Irish Times, Maguire & Lally, October, 2012). Over a 12 month period, three Irish girls have committed suicide as a direct cause of cyber bullying. All of the girls were using a popular website known as 'ask.fm', which is a social question and answer website that allows users to post anonymous comments and questions on each of the others profiles.

1.6 Psychosocial Sequelae of Cyberbullying

With adolescence comes a series of changes; biologically (puberty), psychologically (self identity) and socially, (moving away from family to spending time with peers) adhering to the biopsychosocial model (Paikoff & Brooks-Gunn, 1991). Research suggests that the main psychological event, which takes place during this period is identity formation (Erikson, 1968; Marcia, 1980, Adamson & Lyxell, 1996; Masten & Coatsworth, 1988, as cited in Orr 2013). This identity formation stage is vitally important in the development of self-esteem and indeed human growth. External and environmental factors will have an impact as will, arguably more importantly, the effect of friendships and peer groups formed during this period (Orr, 2013).

Adolescence is also regarded as a time of potential high stress and anxiety. At this time, the process of forming identity can depend on cues from the social situations such as perceived stereotypes. This creates an attempt to seek out social environments

that will help adolescents feel positive about themselves and avoid situations that have the opposite effect Patchin and Hinduja (2010).

Individuals who had experienced on line harassment are twice as likely to have depressive symptoms compared to those who were not targeted (Ybarra, 2004). Juvonen and Gross (2008) found individuals reluctant to report cyber bullying due to fear over loosing on line privileges. Therefore, increased negative effects from cyber bullying such as low self esteem can result in longer lasting effects than traditional bullying behaviour.

The effects of bullying have been examined in many areas such as psychology, psychiatry, sociology, education, counselling and criminology, (Aoyama, Saxon, Fearon; 2007). Many studies have demonstrated the impact on victimized youths who have been shown to suffer from depression, (Olweus 1993), anxiety (O'Moore & Kirkham 2001) and low self esteem (Delfabbro et al 2006; O'Moore & Kirkham 2001), as cited in Aoyama, (2010). The negative realities of cyber bullying share many of the characteristics of those associated with traditional bullying however, cyber bullying could in fact be more damaging due to its anonymous and ubiquitous nature (Hinduja & Patchin 2010; Kowalski et al., 2008; Ybarra & Mitchell 2007). A range of behavioural problems, including school absenteeism also prevail as a result of cyber bullying (Katzner, et al., 2009, as cited in Aoyama 2010).

It is widely felt that the non-reporting of cyber bullying behaviour is having extenuating effects in dealing with this problem (O'Moore, Kirkham & Smith 1997). In a

more recent Irish study, Cotter and McGilloway (2011) found 25% of victims failed to report bullying instances, which is a considerable proportion. However it is lower than other studies and this difference may be more related to the selected sample. Juvonen and Gross (2008) found that up to 50% of victims refused to report cyber bullying. Therefore as Smith, Pepler & Rigby (2004, as cited in Smith, 2011) pointed out, any intervention programmes remain ineffective until this pattern can be reversed.

1.7 Cyberbullying and Self Esteem

Throughout the stages of development in the life of a human being, there are numerous challenges that people will face. If some or all of these challenges are not dealt with in an appropriate way but are allowed to persist, this can lead to significant problems in their adult lives. In particular, one's self esteem in adulthood is affected by events in ones teenage years. Erickson (1963) describes the eight stages that individuals go through on the way to adulthood and the many challenges they will be faced. These challenges can cause major disruption and impact on one's identity in the teenage years that can in turn be carried forward into adulthood.

One such challenge is in the transition from adolescence to adulthood is the significant impact that bullying can have on one's development and self-esteem. Rosenberg defined self esteem as "a favourable or unfavourable attitude towards oneself" (as cited in Patchin & Hinduja 2010). Research has shown a consistent link between

victimisation and self-esteem. Victims of bullying according to Olweus (1993) are typically more introverted and have lower self esteem. Leary and Downs (1995, as cited in Patchin & Hinduja 2010) define self-esteem in terms of self perceptions of social acceptability or otherwise and a psychological measure of inclusion versus exclusion by others. Self esteem is therefore a belief or perception as to how one is valued in the social world. Research has consistently demonstrated that those with low self esteem are more susceptible to being victims of bullying.

According to Erikson (1963) the key task of adolescents, is development of one's identity. Adolescents rely to a large extent on their social environment to achieve this. In general, adolescents tend to seek out situations that allow them to value themselves in a positive way and similarly avoid situations that do not (Patchin & Hinduja, 2010). Teenagers view the internet as a powerful tool that increases connectivity and the ability to communicate with others. Most on-line activity is reported to be of a positive nature however it is important to understand the potentially harmful outcomes on those users who are more vulnerable and many teenagers and young adolescents will fall into this category.

Patchin and Hinduja (2010) conducted a study on the relationship between adolescent's exposure to cyber bullying and their level of self-esteem. The study was conducted amongst 1,963 students in middle school, from over 30 different schools, in one of the largest school regions of the United States. Respondents were asked to complete a questionnaire detailing their experiences of internet usage and cyber bullying.

It was found that victims of cyber bullying had significantly lower levels of self esteem compared to non victims. These results were irrespective of age and gender. This report also concluded that the relationship between lower self-esteem levels was significant for victims compared to cyber bully offenders. Based on the research reviewed it is clear that self esteem is lowered and damaged in adolescent victims of cyber bullying.

An earlier Irish study was conducted by O'Moore and Kirkham in 1993-1994 among 8,249 school children aged between 8 and 18 years to assess the global nature of self esteem and how it relates to adolescents who have been the victims of bullying. It found that the bully victims of all ages had lower levels of self esteem than children who had not experienced bullying or those who had bullied others. Whilst a similar Irish study of this scale, investigating self esteem levels as a result of cyber bullying, has not been undertaken, it may be reasonable to speculate that victims of cyber bullying would display similar levels of self esteem.

Schurgin O'Keefe and Clarke-Pearson (2011) looked at how vulnerable adolescents are to the exposure of social media sites. With increased usage of social media and mobile technology, this means that this generation's social and emotional development is occurring in cyberspace. However, at this young age they are more vulnerable and susceptible to peer group pressure. From the literature reviewed above, research has indicated a consistent link between low self-esteem and cyber bullying. In light of this research, it is relevant to examine this in an Irish context.

1.8 Cyberbullying and Quality of Friendships

Whilst bullying may not be an age specific issue, young adults are more susceptible to bullying in all its forms due to the high importance they place on friendships and the impact of peer group support or pressure during this delicate developmental stage (Espelage & Swearer, 2003). Also, friendships at this younger age tend to involve more self disclosure of feelings and other personal information, which can increase the potential vulnerability. Friendship cliques are very prominent and important and rejection from these groups can be extremely upsetting for teenagers.

During this stage young people move their time and affection away from family and onto friends and peers (Feldman, 2006) as cited in Johnson, (2011). These new relationships create a whole new sense of identity and belonging and also provide guidance and benchmarks. These new acquaintances will also become new sources of information. This is obviously a period of time when the importance of friendships and involvement in certain groups is vitally important.

Adolescents spend a lot of time with their friends and peer groups and the quality of these friendships can be a good measure of well being (Flanagan et al, 2008) as cited in Aoyama, Saxon, Fearon 2007. Within these new friendships and relationships, young adolescents will begin to search for new forms of personal identity (Erikson 1963). These relationships are therefore critical to the emotional and social development of the adolescent (Espelage & Swearer, 2003). Therefore any form of bullying experienced,

including cyber bullying can have a major impact on development and the perception of self (Crick et al, 2001). Indeed, the psychological damage caused by negative social behaviour can be just as bad as physical damage caused by physical aggression (Capella & Weinstein, 2006) as cited in Johnson (2011).

One can deduce that a desire for social acceptance may be the cause of bullying behaviour. Girls, in particular experience shifting relationship dynamics with their friends ranging from inclusion to exclusion of certain groups or cliques (Firth, 2004) as cited in Radliff and Joseph 2011. They are therefore inclined to use forms of bullying believing that this will lead them to gain acceptance and popularity (Rose, Swenson & Waller, 2004) as cited in Radliff and Joseph 2011.

Conversely, the victims of bullying, including cyber bullying, may find themselves suffering from loneliness and even exclusion or peer rejection (Bond et al 2001) as cited in Johnson 2011. Given the importance of friendships and the need to feel a sense of belonging, these feelings of loneliness and social rejection can be extremely painful and damaging. Research on victims of bullying behaviour have found that very often they display higher levels of loneliness and struggle to make new friends compared to non victims. (Nansel et al., 2001) as cited in Johnson 2011.

The quality of friendships is a good indicator of social well being during adolescence. It is less likely that bullying will occur within a good and positively supportive circle of friends. Conversely, those without such robust friendships may be

more susceptible to cyber bullying. Hanish and Guerra (2000) state poor social support from peers and friends can make these young persons more vulnerable to bullies as they are less concerned about retaliation. Good friendships and peer relationships provide an avenue to discuss and talk about such situations and avoid the internalising of these problems and events. The ability to talk a problem through with peers who are caring and supportive, helps the adolescent overcome these problems (Kochenderfer Ladd & Skinner 2002) as cited in Aoyama, Saxon, Fearon 2011. One of the roles identified with friendship is that of a shielding function. Several researchers have identified having friends acts as a barrier to victimisation (Hodges, Boivin & Bukowski, 1999; Kochenderfer & Ladd 1997).

Typically friendship is seen as a protective factor against bullying behaviour. Wei and Jonson-Reid (2011) looked at the occurrence of bullying behaviour within friendships groups. It was found that bullying within friendships is associated with psychological distress.

Researching quality of friendship in an Irish context, O'Moore and Minton (2009) found that 66.3% of the adolescent group surveyed would prefer to report an incidence of cyber bullying to a friend, with only 14.3% seeking the assistance of an adult at school. Therefore, it would appear for cyber victimisation the role of friendship offers valuable protection against the damaging influences. As indicated previously, no research to-date in an Irish context has investigated the role of friendship in addressing the growing problem of cyber bullying amongst our young people. The role of the bystander has been

well documented in looking at Cyber bullying (O'Moore 2010), and in an attempt to promote disclosure, it is believed researching quality of friendship will prove a resourceful means in tackling the problem of cyber bullying amongst adolescents in Ireland.

1.9 Summary and Rationale

The addition of the current research is important for a number of reasons. The prevalence rates for cyber bullying are increasing worldwide. Technology is changing at an exceptional rate and its impact on the lifestyles and emotional development of young adolescents is equally concerning (Aoyama, Saxon, & Fearon 2011; O'Moore & Kirkham 2001). Cyberbullying is emerging as not just a virtual form but very much a real form of bullying. A mounting body of evidence suggests that cyber bullying is a more harmful means of harassment, due to its ubiquitous nature, availability to reach a wider audience faster and its anonymity facilitated by technology (Tokunaga 2010, Ybarra 2004, Patchin & Hinduja 2010, as cited in Aoyama, Saxon, Fearon 2011).

Furthermore, the incidence levels of cyber bullying amongst adolescents in Ireland was researched by O'Moore and Minton (2009) and was recorded at one in five amongst adolescents between 12 -16 yr olds. A more recent report by O'Moore (2012), found this figure had increased to one in seven. In addition, O'Moore (2012) and Cotter and McGilloway (2011) found that cyber bullying has more of an impact on victims than traditional means of bullying behaviour.

Correspondingly, cyber bullying has been shown to cause considerably lower levels of self esteem in adolescents (Hinduja & Patchin, 2010). Juvonen and Gross (2008) found that up to 50% of victims refused to report cyber bullying incidents, resulting in increased levels of anxiety and reduced self esteem. O'Moore and Minton (2009) found victims of cyber bullying were five times more likely to confide in a friend than report to an adult at school, highlighting the role of friendship in dealing with cyber bullying.

Cyber bullying is a significant problem amongst young adults in Ireland today (O'Moore 2012). In particular, the media has focused on the prevalence of incidents of bullying behaviour amongst adolescent females. A considerable body of research (O'Moore & Minton 2009; Smith 2006), indicate that girls are more likely to engage in cyber bullying behaviour. To-date no previous Irish research has focused on cyber bullying, in the context of how it impacts upon adolescent's self esteem and quality of friendships amongst young adolescent females. This study will address this gap.

The high prevalence rate of cyber bullying amongst our adolescent community is a cause for concern. Evidence suggests that rates are increasing, O'Moore and Minton in (2009) indicated a 14.2% prevalence rate amongst 12 – 16 year olds of which contrasts with Livingstone, Haddon, Gorzig and Olafsson (2011) who reported a prevalence level of 19%. The overall aim of this research study is to observe the psychological effect that cyber bullying has caused within the contained sample and to identify if cyber bullying is in fact linked to the identified variables of self esteem and quality of friendship. The core

objective is to develop a greater understanding of cyber bullying amongst the adolescents community in Ireland, which will help inform and contribute to the development of anti-bullying initiatives to address the issue of cyber bullying amongst our youth.

1.10 Hypotheses

Hypothesis 1

It is hypothesised there will be a significant difference between victim and non-victim and levels of self esteem and quality of friendship.

Hypothesis 2

It is hypothesised that there will be a significant relationship between cyber bully victims and self esteem and quality of friendship.

Chapter 2

2.1 Participants

The total number of participants ($n = 91$), was made up of Secondary School Students from Holy Child School, Killiney, Co. Dublin. The participants, all females, were aged between 12 and 17 years of age (Mean = 14.48 SD = 1.76). The sample is representative of a middle class socio economic background. The school is a private fee paying school in Dublin.

Examination year students were exempt from participating and a random sample of participants from first, second, fourth and fifth year were selected. To ensure maintenance of ethical standards, participants were informed that all responses were anonymous and participation was voluntary.

2.2 Design of Research

The research was largely a between subject, quantitative cross sectional study in the form of a self administered questionnaire to a sample of female students between the ages of 12 and 17. The predictor variables for this study are cyber bullying. The criterion variables include self esteem and quality of friendship. It is a non experimental design between subjects which is descriptive in nature.

2.3 Materials

The materials used in this study include a questionnaire booklet of 17 pages in length designed for survey conditions (Appendix 1).

In order to devise a questionnaire appropriate to address the needs of this sample, it was necessary to conduct a preliminary focus group containing six participants, representative of the sample size. The recommendations from this group informed the decision to reduce the number of questions to allow for administration of the questionnaire in a specific time frame. It was also deemed appropriate for the age category of the sample size.

The first section of this booklet contained demographic questions pertaining to age and class year. The second section related to the Cyber bullying Questionnaire (CBQ) developed by Smith et al., (2006). This questionnaire is based on the revised bully/victim questionnaire (Olweus, 1996), which has recognized psychometric properties. In response to the needs of this study and to take into consideration the recommendations from the preliminary focus group, questions were modified to refer to cyber bullying through text messaging, picture/video-clips and website bullying. Participants were asked to comment on the frequency of each form of bullying, both inside and outside of school. If they were aware of this method of bullying and how they thought it compared to traditional bullying. They were also asked if they knew the bully, how long since the bullying had occurred and who they had informed regarding the

bullying behaviour. Views on banning mobile phones and internet access during school hours, were also addressed. A 4-point Likert scale was used to score responses ranging from 0 ('I haven't been bullied') to 4 ('several times a week').

2.4 Self-Esteem Scale

The Rosenberg (1965) Self Esteem Scale (RSE) is a reliable and valid quantitative method for measuring self-esteem. It is a ten item questionnaire answered on a four point Likert scale, ranging from 1 = "strongly agree" to 4 = "strongly disagree". Five of the questions have positively worded statements and five of the questions have negatively worded statements. The scores are totalled to provide a measure of global self-esteem.

2.5 Quality of Friendship

The McGill Friendship Scale-Respondents Affection (MFQ-RA 1999) is a self administered questionnaire designed to measure respondent's affection towards their friends. It is a 16 item questionnaire answered on a 9 point Likert scale, ranging from - 4 = "very much disagree" to + 4 = "very much agree". The respondent is required to reflect on a friendship they have and select a score that reflects their fondness towards their friend for each question asked. The scores are totalled and provide an overall measure of the respondent's affection towards their friend. (The questionnaire was revised using a 1 – 9 scoring in order to facilitate a more user friendly format for the sample size).

2.6 Procedure

Approval to conduct the research was sought from the Institutional Review Board of DBS College and the principal of the school (See Appendix 2). Written consent was granted by the principal to carry out the research in the school. The researcher visited the school to outline the nature of the study and to distribute the parental request form to the students. All participants took part in the same location, under the same environmental conditions. Each student sat separately to ensure privacy. Prior to the administration of the questionnaire, the researcher outlined the purpose of the study and addressed any questions from the participants. The students were informed that participation in the study was voluntary and that all responses would be anonymous. Respondents were given the option to withdraw from the survey at any stage. The front page of the questionnaire explained the definitions of cyber bullying and traditional bullying. The importance of answering the questions truthfully was communicated to the students.

A population sample of 91 students completed the questionnaire in a thirty minute period. All participants were supervised throughout this time. Upon completion of the questionnaire the researcher asked each student to retain the last page of the questionnaire that contained information regarding help lines and useful websites for victims of cyberbullying. Upon completion of the questionnaires the respondents were thanked by the researcher for their participation in the study.

The data was input into SPSS 18 on a Dell Latitude laptop computer running a Microsoft Windows 2007 operating system.

2.7 Data Analysis

The data analysis method used, was a spearman's rho test to measure the relationship between cyber bully victims and self-esteem and quality of friendship. An independent sample t test was used to see if there was a significant difference between victims and non victims in regard to levels of self-esteem and quality of friendship. Descriptive statistics were used to calculate mean scores.

Chapter 3 - Results

All statistics were computed with SPSS 18 for windows.

3.1 Descriptive Statistics

The following tables list the means and standard deviations for the variables used in the analysis.

Table 1. *Descriptive Statistics for Self-esteem and Quality of friendships scores*

	Mean	Standard Deviation	N	%
Self-esteem				
Victim	18.30	1.89	10	11
Non-victim	16.56	2.26	81	89
Quality of friendship				
Victim	46.27	26.83	10	11
Non-victim	41.80	34.43	81	89

Table 1 shows that there are 11% victims and 89% non victims of cyber bullying. Mean scores for victims of cyber bullying were 18.30 (SD 1.89) which is higher than actual non-victims who reported a score of 16.56 (SD 2.29). The mean scores recorded for quality of friendship for victims was 46.27 and (SD 26.83), which is slightly higher than non victims, who reported a mean score of 41.80 and (SD 34.43) again is lower than non-victims.

When asked if they had ever experienced any form of cyber bullying, 10 replied that they had which is 11% of the sample. The forms of media used for cyber bullying over the past few months include text messaging 3%, website bullying 4.4% and mobile phone pictures and video clips 2.2% (as shown in table 2).

Table 2 *Descriptive Statistics of Cyber bully Victims and the various forms of media used for bullying*

Variable	N	%
Reported cyberbullying – victim	10	11
Text message cyberbullying	2.37	3
Web cyberbullying	4	4.4
Mobile phone picture/video clip	2	2.2

When students were asked if banning private internet use during school would help to avoid website bullying 11 (12.1%) answered yes. 17 (18.7%) responded no, that if it was banned students would just use the internet when the teacher was not looking (table 3). The majority of students 60 (65.9%) responded by saying that banning the internet would not be helpful as they would use the internet after school hours.

Table 3 *Descriptive statistics of relevance of banning internet access at school*

Variable	N	%
Yes	11	12.1
No, students will use the internet whilst the teacher is not looking	17	18.7
No, they will just use the internet after school	60	65.9

When asked who they told about cyber bullying instances (see table 4), 1 (1.1%) reported that they told a teacher. Most respondents told a parent/guardian or their friends at 4.4% followed by somebody else at 2.2% or nobody at 2.2%.

Table 4 *Descriptive statistics of the people cyber bully victims turn to.*

Variable	N	%
Teacher	1	1.1
Adult at school	1	1.1
Parent/Guardian	4	4.4
Friends	4	4.4
Somebody else	2	2.2
Nobody	2	2.2

3.2 Inferential Statistics

Hypothesis 1: There will be a significant difference between victims and non-victims and levels of self-esteem and quality of friendship.

The mean scores for self esteem in Cyber bully victims was 18.3 (SD = 1.89) and non-victims was 16.56 (SD = 2.58). An independent samples t test found that there was no significant difference between self esteem in cyber bully victims and non victims ($t(89) = -2.34, p = 0.210$) Therefore, the null is accepted.

The mean scores for quality of friendship in cyber bully victims was 46.27 (SD = 26.33) and for non-victims was 41.80 (SD = 34.43). An independent samples t test found that there was no significant difference between quality of friendship in victims and non victims ($t(89) = 0.48, p = 0.630$) Therefore, the null is accepted.

Hypothesis 2: There will be a significant relationship between cyber bully victims and self-esteem and quality of friendship.

A spearman's rho correlation found that there was a weak significant correlation between cyber bully victims and self esteem ($r_s(91) = 0.24, p = 0.024$). Therefore the null is rejected. A spearman's rho correlation found that there was no significant association between cyber bully victims and quality of friendship ($r_s(91) = 0.02, p = 0.864$). Therefore, the null is accepted.

3.3 Qualitative Results

The study provided respondents with the opportunity to support and expand on their responses. Some common themes emerged and are discussed below.

1. Lack of control or a feeling of powerlessness

The majority of the students surveyed admitted that they felt they had no control over cyber bullying and they could do little to prevent it. The anonymity of the perpetrator was a key concern. They believed the bully feels braver and more powerful as they are acting from “behind a screen” and would be less likely to say such comments “to the victim’s face”. As there is little or no threat of the bully being tracked down or caught, the victim feels completely powerless to prevent these invasive intrusions in their lives.

2. Traditional verses Cyber forms of bullying

Cyber-bullying, using picture or videos, was considered the most harmful. In general, a prevalent theme amongst the surveyed students was that cyber bullying has a more serious effect on the victim and is considered more harmful than traditional forms of bullying. This is due to a number of reasons. Firstly, the public aspect of bullying is taken to a new level on social networking sites such as Facebook, where anyone can make hurtful or abusive comments or pass judgement on the victim. Secondly, this form of bullying is unrelenting; the victim is exposed to a constant stream of abuse. The

permanent nature of the internet means that there is a constant reminder for the victim of the harassment directed towards them.

3. The recent use of i phones, has exacerbated the problem, as pictures or videos have been shared online without the victim's consent.

4. Reporting the issue or bans at school would make no difference.

It was widely felt that this would have no affect on the prevention of cyber-bullying, as students would continue to use their phones out of sight of teachers and continue bullying after school hours. Many believed nothing could be done to stop a bully if they intended to harass another student. Students suggested awareness programmes in schools as well as speakers to discuss the serious implications resulting from bullying.

5. Comments regarding the nature and content of cyber-bullying

The tendency for bullies to create chat groups or pages in order to belittle the victim and criticise them without their knowledge are commonplace and according to the students surveyed, the most damaging and harmful website is ask.fm, a website which allows members to anonymously post questions and results in endless streams of abuse and threats in return.

The overwhelming result of the findings appears to be the resignation of the victims to the complete helplessness in any situation involving cyber bullying and the ineptitude of authoritative figures to make a positive impact.

Chapter 4 – Interpretation

4.1 Discussion

The purpose of this research project was to investigate cyber bullying amongst adolescent females in Ireland, focusing in particular on the variables of self-esteem and quality of friendship in victims compared to non-victims. The assertion by O'Moore (2012) that cyber bullying is a cause of considerable concern for Irish student's, was upheld in this study.

The prevalence rates of cyber bullying amongst victims in this study was (11%) which is low by comparison to other studies, Ybarra and Mitchell (2004) reported 19%, Cotter and McGilloway 17%. However, it is somewhat similar to results found in the most recent Irish study conducted by O'Moore (2012), who reported a prevalence rate of 13.9%.

4.2 Self Esteem

A considerable body of research has consistently linked reduced levels of self-esteem in victims of cyber bullying and this was confirmed in research conducted by Cooke et al. (2010), Aoyama et al., (2011). This study predicted that there would be a link. In this study, a weak significant correlation between cyber bully victims and self esteem was found ($r(91) = 0.24, p = 0.024$). This finding supports previous research conducted by Patchin and Hinduja (2010) who found a statistically significant relationship between victims of cyber bullying and levels of self-esteem. Whilst this

study reported a weak level of significance for self esteem, this may in part be more reflective of this particular sample.

It was anticipated that this study would indicate reduced levels of self esteem amongst victims of cyber bullying. However, in contrast, results on self esteem scores for victims were 18.30, which are slightly higher than non victims at 16.55. This may be attributed to the low instances of bullying reported in general in this study. There are perhaps a number of influential factors which are necessary to consider relating to this sample. The participants are representative of middle to upper socio economic grouping. A high representation of professional's amongst the parents, may influence a more proactive and involved parenting style. Further, the school culture is open and responsive to communication from parents, students and teachers alike. The school has an active parents association, which encourages open dialogue amongst school and parents.

The school principal executes high standards of behaviour and operates a 'zero tolerance' stance for bullying issues. A student counsellor is freely accessible for all students. A student mentoring programming is also in place for new students joining the school. This allows juniors to be supported by older students. This indoctrinates new students into the culture of the school, whilst also providing a means of coping for junior students to rely on in the event of unsavoury bullying activity. The participants who indicated they had been victims of bullying behaviour, in most cases, stated that it had either not happened in their current school or that it was from a source outside school. It is important to consider these factors when evaluating the results from this study.

4.3 Quality of Friendship

This study hypothesised that there would be a correlation between cyber bully victims and quality of friendships, however, no statistical significant association was found between cyber bully victims and quality of friendship ($r(91) = 0.018$, $p = 0.864$). This is in contrast to previous research that supports a positive relationship between the two variables (Bukowski et al., 1995 Hodges et al., 1999). This may also be due to the constraints of this particular sample.

Hypothesis Two proposed that there would be a significant difference between victims and non-victims and levels of self-esteem and quality of friendship, however no significant relationship between self esteem in cyber bullying victims and non victims was found. An independent sample t test showed that there was no significant difference between self esteem in cyber bully victims and non victims ($t(89) = -2.34$, $p = 0.210$). Therefore, the null is accepted. There may be a number of explanations for this. It may be indicative of this particular sample or perhaps it may be the case that the level of cyber bullying may not have extended over a long period of time compared to other studies.

Results reported mean scores for self-esteem in victims was 18.30 (SD = 1.89) and for non-victims 16.55 (SD = 2.58). It was anticipated this study would indicate reduced levels of self-esteem amongst victims of cyber bullying. Again, actual findings

contrast with the mounting body of evidence which supports different levels of self esteem amongst victims (Price & Dalgleish 2010; O'Moore & Kirkham 2001).

Statistical analysis of the data found no significant difference between victims and non victims in their quality of friendship as found in an independent samples t test ($t(89) = 0.48, p = 0.630$). Therefore the null is accepted. The mean scores for quality of friendship was 46.27 (SD = 26.83) for victims and for non-victims 41.80 (SD = 34.43), showing how valuable quality of friendship is to those who are victims of cyber bullying.

These results conflict with past research. Perhaps this may be indicative of how highly victims value their friendship and therefore report their friendships as highly significant. This was one of the findings by O'Moore and Minton (2009) where victims of cyber bullying were in fact five times more likely to confide in a friend. This study confirmed these findings with 4.4% of victims choosing to confide incidents to a friend, indicating the value a supportive friendship can provide to victims, as identified by Kochenderfer Ladd and Skinner (2002).

4.4 Additional Results from Qualitative Data

An analysis of the qualitative data in this study reiterated some of the main findings expressed earlier in the literature review. The unrelenting nature of cyber bullying was a concern expressed by a number of pupils. This point is identified as a key characteristic of cyber bullying compared to traditional methods as outlined by Smith (2006).

The general feeling amongst students was that cyber bullying represents a more threatening form of harassment than traditional methods due to the anonymity afforded by the ability to hide behind a screen and also the permanent nature of the internet, meaning that cyber bullying is constant. This point reiterates that research findings by Vandebosch et al., (2006); Ybarra & Mitchell, (2007) and Kowalski et al., (2008) when they outlined the repetitious nature of the internet and the lack of accountability.

The medium used most predominantly to bully was websites at 4.4% followed by text messaging at 3%. Students believed comments made by text messages were harsher or more cruel, as they may be misconstrued due to the lack of face time with the sender. The impact of text messaging as a form of bullying was identified by O'Moore and Minton (2009), where it was found that text messaging and bullying via web sites were the most common forms. This was later confirmed by Cotter and McGilloway (2011). However, increased technological advances, such as iPhones / smart phones, giving internet access, has caused increased levels of cyber bullying through picture or video

clips, as photos can be taken of victims and uploaded in mere moments. This was confirmed by 2.2% of respondents who were victimized using this method. Student's believed this was a particularly humiliating means of harassment. It may be argued that, in a larger sample, this form of bullying would possibly have been more heavily represented.

Only a minority of students believed banning mobile phones at school would act as a deterrent for text message bullying (12.1%). However, the majority (65.9%) believed they would use the internet outside of school hours. This was also confirmed by Cotter and McGilloway (2011) when they addressed the same issue, 60% felt that their peers would use phone to engage in bullying behaviour after school hours.

The most prevalent means of bullying behaviour identified were prank phone calls to victims and on-line chat groups to exclude or belittle victims. This form of behaviour was identified by Dehue et al., (2008) as specific behaviours observed during female relational aggression facilitated through cyber bullying.

4.5 Limitations of the Study

The sample size was relatively small at 91 participants. In order to conduct a comprehensive study on cyber bullying behaviour in Ireland, it would warrant a more representative national study incorporating a sample of 12 – 17 year olds from mixed socio economic backgrounds, including both male and female participants. It is important to include both urban and rural geographical locations in order to conduct a thorough research study. A more recent report, conducted by Mona O'Moore in 2012, incorporated a total sample size of n 3000 of 12 – 16 year olds living in Ireland. A study on this scale will provide a more informative result on how students from across the nation feel regarding cyber bullying. As stated previously, the participants in this sample were from middle to high socio economic background. This may have impacted on the dependent (self esteem) variables as previous studies have found a high correlation between self-esteem and socioeconomic status (Demo & Savin-Williams, 1983; Rosenberg 1981).

The survey methods employed in this study required self report from the participants which is by nature subjective. The younger participants may have benefited from a questionnaire that incorporated more qualitative techniques. This is evident from the rich data which the qualitative questions on the Smith et al., (2006) questionnaire yielded. If this method was employed using the variables identified in this study, perhaps this would have altered the results considerably. Additionally, if future studies address

the different stages of adolescents development, early, middle and late stages, this is will provide a more accurate measure.

Literature review to-date has highlighted the gender differences in regard to cyber bullying behaviour. Therefore incorporating results from both male and female participants will not only give a more complete account but also provide research with the opportunity to compare gender patterns in cyber-bullying.

Despite the limitations of this study, it is important to note that there were also a number of key strengths. The results from the qualitative data reiterated many of the key themes found to be common in research to-date on cyber bullying. Many participants felt completely powerless to avert cyber bullying as it is part of a by product of the technological era that we live in. The belief for many is that cyber bullying is more humiliating and detrimental form of aggression. However, a strength that emerged was how participants in this study believed they could actually turn to both their parents and friends, indicating the value of relationships as a support mechanism in coping with the cyber bullying attacks. The low level of reporting incidents of cyber bullying is a persistent problem in addressing this issue. O'Moore (2012) found reporting levels to be as low as 1%. However, if a culture of disclosure amongst friends can be built upon this may further act as a means to combat cyber bullying.

4.6 Suggestions for Future Research

To address some of the limitations associated with this study, a national longitudinal study is recommended to provide a more accurate analysis of the long term psychological effects that are identified as a result of cyber bullying.

4.7 Application and Implications

This study has confirmed that cyber bullying remains a consistent problem amongst our youth. In order to address this issue a number of practical initiatives need to be implemented. The advent of technology has increased the gender gap between parents and children (Schurgin & O’Keeffe 2011). In order for parents to be able to provide support to their children in negotiating their way through social networking sites such as Facebook, they need to be able to understand the internet at a “very cognitive level” (as stated by Mary O’Connor, Sunday Independent March 2013) otherwise children will feel their parents simply don’t understand, which will further widen the communication gap. An understanding of such issues as privacy settings, ‘walls’, ‘likes’, and ‘tags’ ‘chats’ and ‘posts’ need to become part of parent’s vocabulary. Being subjected to verbal abuse in print where hundreds can view instantly is demoralising for any adolescent. Due to an overwhelming need to be liked, adolescents are powerless in the face of such cyber attacks.

Parents need to know their children's password for Facebook and avail of such sites as minormonitor.com which provides an ability to monitor their children's on line activity. Social network sites like Facebook have accelerated the proliferation of on line bullying sites, such as ask.fm and rating games like HO (honest opinion), where children judge each other out of ten for looks and personality, are further exasperating the problem. Parents have an increased role to play in providing moral guidance for their children.

Facebook and other such sites, have an obligation to get involved in ensuring its product is used appropriately and help create greater vigilance by working closely with parents, schools and children to educate them on issues such as disclosure of privacy and effective education on how Facebook works. (Sunday Independent, March 2013).

The government needs to increase awareness by delivering well targeted and clearly delivered messages about Facebook and other internet sites. The UK has developed an effective programme CEOP – Child Exploitation and Online Protection Centre which has issued a number of effective educational videos at thinkuknow.com. All of these initiatives help to create a greater more valuable source of education for our community (Sunday Independent, March 2013).

Schools can also play an integral role in educating parents with realistic and up-to-date forums. Incorporating anti-cyber bullying campaigns into the school curriculum as part of the Social, Personal and Health Education (SPHE) programme will provide

students with the necessary skills to foster positive relationships (Cotter & McGilloyay 2011). In order for school principals to implement effective anti-cyber bullying campaigns as part of their anti-bullying policies, they would benefit from help from the Department of Education and Skills Corcoran et al., (2011). Corcoran et al., (2011) found that Principals required assistance in the following areas; training, resources, guidance and information to implement effective anti-cyber bullying campaigns. The Department of Education and Skills could provide more resources to schools in terms of posters, booklets and guidelines as to how to handle specific social network sites, all of which would greatly contribute towards developing an increased awareness of cyber bullying.

Finally, any campaign must listen to the students; as this report shows, they are experiencing bullying behaviour first hand and if they are educated on methods to avert the course of bullying from a bystanders view, this greatly increases the effect of reducing instances of cyber bullying.

4.8 Conclusion

The aim of this study was to determine if a possible relationship existed between cyber bully victims and self-esteem and quality of friendship within a female adolescent community. Results found that there was no correlation between self-esteem and cyber bullying. Quality of friendship was found to indicate a weak relationship as a variable.

However, results from the qualitative data confirmed that cyber bullying remains a threat to our adolescent population. Despite the results of the current study, it is hoped that future research will continue to investigate the variables identified on a larger national scale to control for the limitations in this current study.

It is hoped that future research will continue to build and inform awareness programmes to help strengthen our resolve to counter cyber bullying amongst our adolescent community. An integrated approach is necessary requiring commitment and involvement from governments, schools, students, parents and in particular web sites such as Facebook to deal with this very important issue, “as the costs of our student’s lives are too high to ignore” (O’Moore 2012.)

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APPENDICES

Appendix A Questionnaire

Appendix B Approval Documents