An Irish investigation into the factors affecting bystander intervention to cyberbullying among adolescents.

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Contents

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Abstract

Cyberbullying is a growing and significant problem in the technological societies of today which has significant effects on adolescent victims, such as increased anxiety, depression and suicide ideation. The importance of bystander intervention is recognised as playing a significant role in reducing levels of cyberbullying due to the public nature of some forms of cyberbullying. The current research project examined factors affecting bystander intervention to cyberbullying. Three hypotheses were directly tested: (1) Female bystanders to cyberbullying will be more likely to report or intervene in the cyberbullying than males. (2) Bystanders with higher levels of self-esteem will be more likely to report or intervene in the cyberbullying than bystanders with lower levels of self-esteem and (3) Bystanders with higher levels of altruism will be more likely to report or intervene in the cyberbullying than bystanders with lower levels of altruism. All three hypotheses were accepted. This study focuses on understanding factors affecting bystander intervention, as by increasing reporting levels, cyberbullying levels can ultimately be reduced. School and family support was recognised as playing a role in increasing bystander intervention.

1.0 Introduction

The following literature review will examine the current research in cyberbullying, the sections will comprise of prevalence rates of cyberbullying, methods of cyberbullying, different forms of cyberbullying, differences between cyberbullying and traditional bullying, the role of the bystander in cyberbullying, reasons victims do not report cyberbullying, gender differences in cyberbullying, the role of parents and teachers in dealing with cyberbullying, and how self-esteem and altruism relate to cyberbullying. The final section of this literature review will address the proposed hypothesis for this research project and how the research can be applied.

Traditional school bullying has been a problem that has existed for many years and has been the subject of systematic academic research since the 1970's when Dan Olweus begun the first pioneering research into school bullying. Olweus (1993) defines bullying as "an aggressive, intentional act or behaviour that is carried out by a group or an individual repeatedly and over time against a victim who cannot easily defend him or herself." Bullying can take the form of direct bullying involving the use of aggression and physical violence or indirect bullying which consists of more subtle acts such as manipulation, gossiping, rumour spreading and exclusion (Olweus, 1993). Direct bullying is usually more common among boys and indirect bullying is more popular among girls (Nansel et al, 2001). Bullying involves a minimum of two people, the victim and the perpetrator although it may involve a large group of people either directly taking part in the bullying or indirectly as bystanders (Sharrif, 2008). These bystanders may be other students who witness the bullying event but remain uninvolved. They are frequently afraid of becoming the next victim if they do interfere. They often feel powerless and show a loss of self-respect and self-confidence (Harris and Petrie, 2002). Traditional bullying has been studied internationally at length and

a large body of academic research exists on the topic (Olweus, 1993; Nansel, 2001; Harris and Petrie, 2002; Rigby, 1997).

With advances in technology in increasingly technological societies a new form of bullying has emerged which is becoming increasingly widespread (Dilmac, 2012) and is now recognized as a global problem. Campbell (2005) reports that many incidents of cyberbullying have been reported in the United States, Canada, Japan, Scandinavia, United Kingdom, Australia and New Zealand. Cyberbullying is a rather new phenomenon which is still at a relatively early stage of academic research; Hinduja and Patchin (2008) believe the unique environment in which cyberbullying occurs and the specific nonphysical manner in which it is typically perpetrated have affected the levels of cyberbullying research. However research on it is growing considerably and findings suggest that that a significant number of young people experience cyberbullying (Li, 2008).

A clear and decisive definition of cyberbullying has proved difficult among academics, partly due to the different methods that are used to cyberbully (Kowalski, Limber and Agatston, 2008). The term cyberbullying was originally coined by Bill Belsey who gives the definition as "Cyberbullying involves the use of information and communication technologies to support deliberate, repeated and hostile behaviour by an individual or group, that is intended to harm others" (Belsey, 2004). Zacchilli and Valerio (2011) state that "Cyberbullying utilises modern technology to harm another person through the use of the internet or texting." Smith et al (2008) expanded on Olweus' definition of bullying to 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." This definition by Smith et al (2008), with the inclusion of 'using electronic forms of contact' gives a rather comprehensive definition of cyberbullying.

Hinduja and Patchin (2008) describe cyberbullying as "willful and repeated harm inflicted through the medium of electronic text."

The spread of cyberbullying is rapidly increasing due to advances in technology, such as the development of smart phones with internet access and the growing levels of computer access available to adolescents, 87% of Irish post primary school pupils have a home computer with internet access and of those who have internet access at home, 50% also have their own personal computer, (CSO, Census at School Survey, 2011). In 2011 The Central Statistics Office published a survey of technology usage in households in Ireland. An estimated 81% of households had a home computer which was an increase of 16% since 2007.

1.1 Prevalence of Cyberbullying

The prevalence of cyberbullying has been reported to range from 10% to 40%; Hinduja and Patchin (2010) explain the variation in occurrence rates as being due to the age of the subjects in different studies and the way in which the research describes what cyberbullying is.

Ybarra and Mitchell (2004) a US study surveyed 3,446 adolescents aged 10 to 17 and found that 19% had experienced cyberbullying at some point, either as an offender (3%), as a victim (4%) and 12% reported experiencing aggression towards others online. Kowalski and Limber (2007) conducted a cyberbullying survey on 3,767 American students in grades 6 to 8 inclusive. In this study 11% of students reported being a victim of cyberbullying while 4% admitted to carrying out cyberbullying. Hinduja and Patchin (2008) carried out research with 1,378 American adolescents. Almost 33% of the males and more than 36% of the females reported having been a victim of cyberbullying. Beran and Li (2005) conducted

cyberbullying research on 432 Canadian students in grades 7 to 9. Twenty one percent of students reported being cyberbullied in more than one isolated incident.

In the United Kingdom studies have shown more consistence rates of cyberbullying, Smith, Mahdavi, Carvalho and Tippett (2006) conducted a study on 92 students between 11 and 14 years of age. Results showed that 22% of respondents had been victims of cyberbullying at least once before, and 6.6%, had experienced being cyberbullied more frequently. A further British survey on cyberbullying conducted in 2005 by the National Children's Home charity and Tesco Mobile of 770 British youths aged between 11 and 19 years found that 20% of the respondents reported being cyberbullied at one point in time while 11% admitted to sending a threatening text message to someone else.

An overview of the prevalence rates of cyberbullying shows slightly more consistently higher rates of cyberbullying occurring in the British studies with the exception of Hinduja (2008) however this sample demonstrated particularly high levels of cyberbullying compared to the others. An average of 1 in 5 children experience being cyberbullied in the United Kingdom whereas American rates differ more significantly which could be explained by the age of the subjects and by the way in which cyberbullying is explained in the research surveys (Hinduja and Patchin, 2010), and as will be discussed there are also cultural differences regarding the methods of cyberbullying used by adolescents.

1.2 Communication Methods for Cyberbullying

Seven different methods have been identified which are used to facilitate cyberbullying (Smith et al, 2008) which are text messages, phone calls, emails, instant messaging (IMing), picture/video clip bullying known as "Happy Slapping", websites including blogs and especially social networking sites such as Twitter and Facebook, and finally chat rooms.

Although cyberbullying can take place through any of these electronic forms of communication cross-cultural variations have shown that different methods of cyberbullying are more frequent in different countries. In Australia and the United Kingdom cyberbullying through the use of a mobile phone is the most common forms whereas in the United States the cyberbullying via the internet is a more common method used (Smith et al, 2008;National Children's Home Survey,2005, Kowalski et al, 2008).

Smith et al (2008) a British study reported texting and bullying via phone calls was the most common means of carrying out cyberbullying. The National Children's Home charity and Tesco Mobile, also a British survey found that text message bullying was the most common form of cyberbullying with 14% of subjects revealing they had experienced bullying by text message. Kowalski and Limber's (2007) American study found that the most common methods for cyberbullying was by using instant messaging, chat rooms and emails. This was reported by both the victims and the offenders. From this research it is evident that British adolescents prefer bullying via their mobile phones while American adolescents prefer to bully via the internet.

Smith et al (2008) found that video clip bullying was reported to be rarer compared to other forms of cyberbullying however this form of bullying was reported by subjects to have a much more negative impact than other methods of cyber bullying. Students did report that video clip bullying was the form of cyberbullying that they were most aware of. When asked to report on what type of cyberbullying they were familiar with video clip bullying was consistently the most common answer. Smith et al (2008) believe that the bully gets more peer reward from this form of bullying as it enables them to share their abusive actions to a wider audience. Slonje and Smith (2008) also reported that their respondents found video clip/picture bullying to be the most negative form of bullying. In contrast Beran and Li (2007) report low levels of video clip bullying. They do however state that at the time of their

study few students reported having access to video phones therefore this is cited at one reason in the reduced levels of video clip bullying. However since this research was published in 2007 there have been major technological developments with smart phones which are now common place among adolescents and are all enabled to record, play and send video clips and potentially have the ability to support cyberbullying. A 2011 survey of adolescent smart phone usage found that the number of American adolescents who own a smart phone is rapidly increasing. In July 2011 5.6 million adolescents between the ages of 13 and 17 reported owning a smart phone. This is an increase of 53% since the same period in 2010 (ComScore Survey, 2011).

Emailing or texting embarrassing photos is an additional method of cyberbullying which can cause distress to adolescents. The 2005 National Children's Home charity and Tesco Mobile survey found that 10% of adolescents surveyed experienced someone taking a photo of them on a phone that made them feel uncomfortable, embarrassed or threatened. Seventeen percent of these respondents then felt that the photo was sent to others. Jovonen and Gross (2008) reported 18% of adolescents in their research experienced unauthorised embarrassing or private pictures of them being texted to other people.

1.3 Different Forms of Cyberbullying

As there are different methods used to carry out cyberbullying there are also different forms of bullying that takes place through electronic methods. Willard (2004) has highlighted the 8 different forms of cyberbullying that adolescents engage in. These include flaming, this is an online fight with angry and vulgar language. Harassment, this is when where someone repeatedly sends nasty, mean or insulting messages to someone else. Denigration, this is where someone spreads rumours or gossips about another person online to damage their reputation or relationships with others. Impersonation, this is where someone

pretends to be another person when posting information online with the purpose of getting that individual into trouble or again to damage their reputation. Outing, this is where one shares someone else's secrets or embarrassing information online. Trickery, this is convincing someone into sharing personal private information and then sharing it online. Exclusion, this is when someone is intentionally and deliberately excluded from an online group. The final form of cyberbullying is cyber-stalking, this is repeated, intense harassment and denigration that includes threats or creates significant fear (Willard, 2004). Parson-Pollard and Moriarty (2008) define cyber-stalking as an extension of stalking that utilises computers and other electronic devices, they found that it is most prevalent among adults and not generally a form of cyberbullying employed by adolescents.

1.4 Differences between Cyberbullying and Traditional Bullying

Studies have investigated the relationship between traditional school bullying and cyberbullying (Beran and Li, 2007: Dooley, Pyzalski and Cross, 2009) and have shown there are similar traits between the two forms of bullying. Cyberbullying behaviors are often similar to psychological, relational, and indirect forms of traditional bullying such as rumor spreading, harassing, threatening, exclusion (Hinduja and Patchin, 2010). Beran and Li (2007) state that rather than cyberbullying being viewed as a separate form of bullying from traditional means of bullying such as hitting, kicking, name calling, excluding, and gossiping it should be viewed as another way in which children engage in bullying behaviour. There also is often an overlap between traditional bully victims and cyberbully victims. Beran and Li (2005) found that 64% of students, who were victims of cyberbullying, also reported that they had experienced another form of bullying.

Although the above research has highlighted the similarities between the two types of bullying there are also marked differences between the two types of bullying. Cyberbullying

has some unique elements which are not analogous to traditional forms of bullying. Firstly cyberbullying gives the bully anonymity where the offender can remain unknown to the victims through the use of temporary email accounts, instant messaging accounts, and pseudonyms in social networking sites, chat rooms and on blog sites (Hinduja and Patchin, 2010). The availability of prepaid mobile phones also allows the bully to remain anonymous when harassing via phone calls and text messages. This can mean that cyberbullying is a more appealing method for the offender as it can be much more difficult to trace the source of the bullying (Zacchilli and Valerio, 2011). Cyberbullying gives the offender an easier method to bully someone while at the same time it can make addressing the problem of bullying much more difficult for the victim. The anonymity of cyberbullying also enables the second factor that differentiates it from traditional bullying to take place. Disinhibition is when children as a result of the anonymity given by the Internet, engage in behaviours that they might not normally do face-to-face such as using extreme profanities. (Zacchilli and Valerio, 2011).

Thirdly means to carry out cyberbullying are very accessible to adolescents and are becoming increasingly more accessible. The majority of traditional bullying takes place at school or on the way to and from school (Kowalski et al, 2008). Cyberbullying allows the bully to target their victim from any location, 24 hours a day resulting in the victim having an inability to have control which is likely to result in feelings of powerlessness (Dooley et al, 2009). The invasion of cyberbullying into the victims home also means that there is no where that they can feel truly safe (Zacchilli and Valerio, 2011).

Punitive fears are also a differentiating factor with traditional bullying and cyberbullying. When a child is a victim of cyberbullying they may fail to report it to an adult due to the fear that their computer or mobile phone may be taken away from them therefore the victim often feels like they are likely to be punished also (Zacchilli and Valerio, 2011).

In summary there are specific differences between cyberbullying and traditional bullying that can make it more difficult for parents and teachers to deal with. Cyberbullying gives the bully a unique anonymity that traditional bullying does generally not have, which often results in disinhibition with adolescents behaving in undesirable ways which they may not normally do, cyberbullying is always accessible to the bully which results in the victim being able to be bullied at any time, and finally victims may refuse to report it as they can view the consequences as a punishment.

The final way that cyberbullying differs from traditional bullying and also the most relevant factor for the current study is the way in which bystanders play a significant role (Li, 2006). The importance of bystander interventions is widely recognised by researchers and educational professionals as a means of reducing bullying (Rigby and Johnson, 2005). A bystander of traditional bullying plays a role by witnessing the bullying and can then decide to report the bullying or not report the bullying. O'Connell, Pepler and Craig (1999) report that up to 75% of peer bystanders' time is spent in ways that may provide positive reinforcement to the bully and do not help the victim. Bystanders take part in cyberbullying by forwarding emails, viewing social network sites, watching videos online and forwarding texts. The number of bystanders in the cyber world can reach into the millions. With cyberbullying bystanders have a unique role to play in that they are enabling the bullying by either watching or viewing the content online or passing it on by phone. Cyberbully bystanders have been identified in playing a huge role in their ability to stop the bullying (Li, 2006; Campbell, 2005; Dooley et al, 2009). Due to the enormity of the bystander in cyberbullying the current study is aimed at examining the factors that motivate bystanders to report cyber bullying and the factors that influence cyberbully bystanders to passively part take in the bullying.

1.5 Bystander Role

In examining the current research on bullying and in particular cyberbullying the role of bystanders was highlighted as playing a significant role in reducing levels of cyberbullying (Rigby and Johnson, 2005; Li, 2006; Dooley et al, 2009). The first issue that was evident is the vast majority of cyberbully bystanders do not report the bullying and consequently it continues to occur. Li (2006) identified the role bystanders play in reducing bullying and suggested that this needs to be encouraged by systematic safety strategies regarding cyberbullying from an early age. Li (2006) identified subsequent research is necessary on bystanders as they have the potential power to prevent a significant amount of cyberbullying. Beran and Li (2007), Campbell, 2005; Dooley et al (2009) and Li (2006) view the bystander of cyberbullying as having a much greater role than a bystander of traditional bullying. Beran and Li (2007) state that rather than just being witnessed by peers as is usually the means in traditional bullying cyberbullying is witnessed by peers, acquaintances and strangers. Peers or bystanders play a role in bullying by 'maintaining and exacerbating' the bullying, with regard to cyberbullying the bystander who may be an unrelated member of the public is also participating in the cyberbullying by playing the same role as schoolyard bystanders they are also 'maintaining and exacerbating' the bullying. The presence of a passive bystander influences both the bully and the victim. To a bully silence from a bystander supports the behaviour and to the victim it may intensify an already painful and humiliating situation (Kowalski et al, 2008).

The impact of bystanders on the cyberbully victim has been considered by Dooley et al, (2009). The importance of the 'group effect' is recognised in this study and that it is a one of the most distressing aspects of cyberbullying. Dooley et al (2009) see the group aspect of cyberbullying which can be viewed by a wide audience of bystanders as being more distressing and damaging to a victim than being bullied face to face where only a small

number or possibly no one witnesses it. The vast number of bystanders who may witness incidents of cyberbullying enables the bullying to be removed from the school yard and brought to a potentially limitless audience.

The increased bystander size with cyberbullying could also be relevant to reporting levels and interventions. Latane and Darley (1968) showed that bystanders' failure to intervene in an emergency situation was affected as the size of the group of witnessed increased. O'Connell et al (1999) proposed that this social psychology seminal work may provide insight into bystander behaviours in relation to adolescent bullying.

While little research has actually be carried out into bystander intervention and cyberbullying although they are regarded as having an important role, much research has been carried out regarding bystanders and traditional bullying. O'Connell et al (1999) confirmed the central role that bystanders play in bullying incidents. By videoing playground behaviours and analysing the children's actions they were able to report that peer presence is positively related to the persistence of bullying incidents. Bystanders are most likely to behave in ways that reinforce bullying behaviours by their inaction or by modelling the bullying behaviours. Bystanders reinforced the bullying 54% of the time by passively watching, by modelling the bullying behaviour it was reinforced 21% of the time and 25% of the time the bystander intervened on behalf of the bully victim. Girls were found to be more likely to intervene regardless of their age and older boys were the least likely to intervene. This is an important aspect to the current study as gender differences regarding bystander reporting are examined and will be further discussed.

Rigby and Johnson (2006) have also examined the importance of bystander in traditional bullying reported that promoting interventions on the part of peer bystanders who witness bullying is currently seen as a promising way of reducing bullying in schools.

Agatston et al (2007) carried out a focus group with the respondents of their study focusing on strategies to deal with cyberbullying. They found that the students had basic strategies such as blocking a sender or ignoring their messages so that retaliation was not encouraged. However with regard to responding to cyberbullying as a bystander they were less likely to be aware of suitable interventions.

1.6 Reasons for not reporting

One of the main reasons adolescents report that they do not tell anyone about the cyberbullying that they are experiencing is that they are not comfortable telling an adult figure such as a parent or a teacher (Li, 2006). Twenty-eight percent of students report not telling anyone about their experience of cyberbullying (National Children's Home, 2005). Respondents who deliberately chose to not tell anyone about the bullying cited the reasons as being the bullying was not a problem (31%), they felt that there was no one that they wanted to tell (12%), they felt that it would not stop the bullying (11%), or they did not know who to go to for help (10%). This highlights the importance of the role that bystanders can play in preventing or reducing cyberbullying by reporting bullying that they are aware of. Agatston et al (2007) found that students believed that school personnel were not helpful resources in dealing with cyberbullying therefore declined to inform them of cyberbullying incidents. Also as previously mentioned another factor prohibiting adolescents failing to report cyberbullying is that they feel their computer or mobile may be taken away from them (Kowalski et al, 2008).

1.7 Gender Differences

Traditionally males are more likely to engage in bullying behaviours and are also more likely to be the target of bullying behaviours (Nansel et al, 2001). Underwood and

Rosen (2011) emphasised that cyberbullying is an important context to investigate gender differences as physical size and strength are less relevant therefore cyberbullying may be a more desirable method for females bullies. Results from studies examining gender differences have been interesting and different studies have yielded varying results. Some studies have shown that males and females are equally likely to engage in cyberbullying behaviours as no significant differences have been found (Ybarra & Mitchell, 2004: Beran and Li, 2005 and 2007: Slonje and Smith, 2008). Beran and Li (2005) suggested that the age range of their sample could be expanded to include younger and older students and then gender differences could possibly be more evident. In contrast to these results Li (2006) found significant gender differences with cyberbullying, with 22% males reporting having cyberbullied someone compared to 12% of females reporting being a cyberbully which coincides with research on the gender differences present in traditional bullying (Nansel, et al, 2001).

Hinduja and Patchin (2008) reported gender differences among the type of cyberbullying experienced and carried out by males and females. Females reported experiencing slightly higher levels of being cyberbully victims (36.4%) compared to males (32.7%). Females were more likely to be cyberbully victims through emails and text messages. Males were found to have higher rates of admitting to carrying out cyberbullying 18% compared to 15.6 % of females who admitted to having engaged in cyberbullying.

Smith et al (2008) carried out two studies as part of their research. In study one significant gender differences were reported. Girls were found to be significantly more likely to be victims of cyberbullying. Their focus groups supported this with students thinking girls would be more likely to be involved in cyberbullying as they are not as physical as males and therefore do not deal with their grudges in a physical manner. In study two no statistically significant gender differences were found. Smith et al (2008) discussed the inconsistencies

with regard to gender and cyberbullying. As mentioned above males tend to participate in more aggressive and physical forms of direct bullying, whereas girls are more likely to participate in indirect forms of bullying. Cyberbullying is comparable to indirect bullying as it is not face to face so it is likely that girls would prefer this method of bullying however Smith et al (2008) emphasis that the technological nature of cyberbullying may be off putting to females and males might prefer the technological aspect of cyberbullying.

In contrast to research that males are more likely to engage in cyberbullying there has also been research which reports higher levels of females being a cyberbully (Kowalski and Limber, 2007). This study reported that females are much more likely to engage in cyberbullying. Thirteen percent of females and 9% of males admitted they had perpetrated cyberbullying at least once in the previous two months. This supports the theory that girls engage in more indirect forms of bullying. Kowalski and Limber (2007) also had higher levels of females being cyberbully victims with 25% of females reporting having been cyberbullied and 11% of males reporting incidents of cyberbullying within the previous two months.

There are also gender differences in relation to reporting the bullying. Research has found that female victims are more likely to report their own instances of cyberbullying than males are.   Agatson, Kowalski and Limber (2007) reported that females perceive cyberbullying to be a bigger problem than males do and appear to be more aware of its occurrence which may explain why more females chose to report more instances of cyberbullying than males do.

Overall the current research shows conflicting results on cyberbullying levels between males and females with no definitive answer as to which gender is more likely to cyberbullying. Kowalski and Limber (2007) reported females are more likely to cyberbully, whereas Li (2006) reported males are more likely to cyberbully, while Hinduja and Patchin

(2008) found females more likely to be cyberbully victims, however this does not necessarily show which gender is doing the bullying as males are as likely to bully males as they are females (Nansel et al, 2001). The differences in these studies highlight a need for continuing research in this area. Overall there are significant differences regarding gender and cyberbullying behaviours.

1.8 Parents and Teachers

Smith et al (2008), show that incidents of cyberbullying are more likely to occur outside of school than in school. One of the main reasons given was that there was a lack of parental control outside of school to prevent the cyberbullying talking place. Agatston et al (2007) also found that students reported cyberbullying to occur more outside of the school day. Campbell (2005) stresses the importance of teachers and parents being more aware of the signs of cyberbullying as many adolescents feel that their parents have no knowledge of their online lives and reports that parents have a bigger role than schools regarding supervision of technologies. Unless parents have previously discussed cyberbullying with their children it is unlikely that they will tell their parents about a cyberbullying incident (Kowalski et al, 2008).

1.9 Self-Esteem and Cyberbullying

The way in which adolescents believe adults or teachers will react to them if they report cyberbullying has also been found to have an effect on adolescents' decisions in not reporting cyberbullying. Li (2006) found that many adolescents often decide not to report cyberbullying as they feel teachers or parents will not do anything to stop the cyberbullying. He suggested that self-esteem can play a role in the likelihood of students reporting cyberbullying. Therefore an investigation into the respondent's level of self-esteem may

prove relevant in their decision to report or not to report incidents of cyberbullying. Hinduja and Patchin (2010) investigated how self-esteem is affected by experiences of cyberbullying. Cyberbullying victims and offenders both have significantly lower self-esteem than those who have not been cyberbullying victims or offenders.

1.10 Altruism and Bullying

Prosocial behaviors' and their relationship to bullying have been researched (Warden and Mackinnon, 2003; Camodeca and Goossens, 2005) and results have shown that peers who defended bully victims, and reported bullying behaviors' exhibit higher rates of prosocial behaviors, such as higher levels of empathy, emotional regulation, cooperation, and altruism. Prosocial behavior is a voluntary behavior that has positive social consequences and contributes to the physical or psychological well-being of another person (Wispe, 1972). In particular the current study will look at altruism and its relationship to bullying. The research on this area is limited on altruism in particular and its relationship to bullying however the current research does suggest that altruistic behaviors' reduce levels of bullying (Hoover and Anderson, 1999). Altruism can be defined as "a special form of helping behavior, sometimes costly, that shows concern for fellow human beings and is performed without expectation of personal gain" (Hogg and Vaughan, 2010). Students can endure both social and physical risks in defending victims of peer bullying (Hoover, Oliver and HazIer, 1992) however Hoover and Anderson (1999) explain that by encouraging interpersonal altruistic behaviours within schools children will be more likely to defend bully victims as their behaviours will be more Prosocial. Hoover and Anderson (1999) suggest that by cultivating altruism among adolescents it will eventually lead to changing both bullying patterns and climates of violence in schools.

1.11 Important Impact of this Research

The addition of the current research is important for a number of reasons. Although research on cyberbullying is relatively new there have been a number of in-depth surveys carried out in different countries (Ybarra and Mitchell, 2004; Smith et al, 2006, 2008; Hinduja and Patchin, 2008; Beran and Li, 2005). These studies have focused on cyberbullying and its impact on adolescents; how cyberbullying differs from traditional school bullying, and incident rates of cyberbullying there has not to date been a comprehensive study carried out in relation to cyberbullying and Irish adolescents.

In addition to the lack of qualitative and quantitative data on an Irish sample in relation to cyberbullying there has also not been significant research carried out on the role of the bystander in cyberbullying. As mentioned by Hinduja and Patchin (2010) most research has focused on identifying the prevalence of cyberbullying behaviours among adolescent populations and other factor relevant to cyberbullying have not yet seen explored. The bystander plays a significant role in cyberbullying however as shown by the gap in the literature there is still not significant research on bystander attitudes and bystander interventions. Li (2006) recommended that comprehensive research needs to be conducted in relation to bystanders and their central role as they can help in reducing levels of cyberbullying.

The overall aim of this research is to use the data collected to help introduce more effective anti-cyberbullying campaigns in post primary schools. Dan Olweus a leading researcher on bullying identified that a whole school approach was the best method in order to tackle the problem of bullying. Olweus pioneered the Olweus Bullying Prevention Programme which is successfully employed in schools internationally to reduce levels of bullying and specifically aims to have better peer relations in schools. With the results from this study on bystanders the information can be used to improve peer relations as Olweus

recommended. It is believed that if bystander empathy can be increased, levels of reporting cyberbullying will also increase. In schools direct teaching of values, education, and empathy training could increase more students to report cyberbullying (Campbell, 2005). The results from this study could then be used by the school in such a manor. From the relatively small number of cyberbullying research that has been carried out there has been no major study carried out in an Irish context.

The current study consists of a cross sectional study in the form of a self administered questionnaire to a representative sample of both male and female students aged 14 to 18. Kowalski and Limber (2007) recommended that despite the emerging research into cyberbullying few studies have focused specifically on students. The questionnaire is comprised of two psychometric tests, The Rosenburg self-esteem scale and Ruston's self report altruism scale, in addition to a questionnaire for demographic data and specific cyberbullying information. This contains a selection of questions to gain an insight into their attitudes and experiences of bullying including if they have ever been cyberbullied, if they have ever cyberbullied someone else, if they are aware of any bullying taking place, likelihood of them reporting bullying they were aware if talking place, their reasons for possibly not reporting the bullying, what they think cyberbullying is and how they feel about it and a range of questions regarding their current usage and access to technology.

The specific hypotheses for the study are:

- Female bystanders to cyberbullying are more likely to report or intervene in cyberbullying than males are.

- Bystanders with higher levels of self-esteem will be more likely to report or intervene in cyberbullying than those with lower levels of self-esteem.

- Bystanders with higher levels of altruism will be more likely to report or intervene in cyberbullying than those with lower levels of altruism.

2.0 Methodology

2.1 Design of Research

The research was a quantitative cross sectional study in the form of a self administered questionnaire to a representative sample of both male and female students aged 14 to 18. The independent variables which tested the hypothesis were gender, levels of self-esteem, level of altruism and the dependent variable was respondents' likelihood of reporting or intervening in cyberbullying as this may be affected by the participant's gender, level of self-esteem or level of altruism.

2.2 Materials

In order to measure the respondent's level of self-esteem they were administered Rosenberg's self-esteem scale (RSE). The RSE, a ten item Likert scale is widely used and considered a reliable and valid quantitative tool for global self-esteem assessment; Demo (1985) reported that the RSE has good reproducibility and scalability. The RSE was originally designed by Rosenberg to specifically test self-esteem of adolescents therefore it was a suitable measure of self-esteem for the current research.

To measure the respondent's level of altruism they were also administered Rushton's self report altruism scale (SRA-scale). Rushton, Chrisjohn and Fekken (1981) designed this scale to measure the consistency of altruistic behaviour across situations which showed considerable consistency at predicting peer rating of altruism. The data from Rushton's research suggests the presence of a broad-based trait of altruism which is being used as an independent variable in the current study.

To date there is no standardised cyberbullying questionnaire which gives an overall precise measure of cyberbullying. The cyberbullying questionnaire which was chosen for the

research was taken from a previous master's thesis (Stys, 2004) which looked at cyberbullying. This questionnaire specifically looked at bystander actions and from the cyberbullying questionnaires available this one was the most relevant to the current study. There were some adjustments made in order to be more suitable for the current study.

2.3 Participants

The school was a co-educational community school located in North County Dublin. There are 888 students in the school; however as the first year students were taking part in a separate bullying questionnaire they were exempt from participating therefore the population from which the sample was chosen from was 738. A population sample of 119 students participated in the questionnaire in order to have a representative sample, which still allowed for some students not to participate if they preferred not to. Classes were chosen at random from second, third, fourth, fifth and sixth years.

2.4 Procedure

Written consent was granted by the principal of the school to carry out the research with the students, who in turn was granted permission from the parents. Students participated in the research voluntarily and were all given informed consent on the purposes of the study. The questionnaire was administered by the school career guidance councillor. Students were advised that if they did not want to participate they did not have to and were given the right to withdraw from the study with no repercussions. Students were informed of the confidential and anonymous nature of the research and advised that no school staff or students would see the answers to their questions. An information sheet explaining these details were also included on the first page of the survey.

Participants were supplied with an information sheet that accompanied the questionnaire which they were instructed to keep and was not stapled to the rest of the questionnaire. The information page advised students that if they were affected by bullying they could contact their career guidance councillor and should talk to their parents. If neither of these was an option the number for Childline a confidential, anonymous and free service for them to contact was available either by the phone or by their website and all relevant information was given. An email address, cyberbullyingquestionnaire@gmail.com was also included for the participants of they wanted to ask any further questions regarding the survey or the results. A copy of the complete questionnaire and letter administered to respondents is located in appendix 1.

3.0 Results

Descriptive Statistics

3.1 Demographic Data

The sample consisted of 119 respondents who comprised of 54 females (45.4%) and 65 males

(54.6%). The respondents ranged from 14 to 18.

3.2 Incident rates of cyberbullying

- 26 respondents (21.8%) reported having been cyberbullied before.

- 14 respondents (11.8%) admitted to cyberbullying someone.

- 88 respondents (73.9%) reported that they had witnessed cyberbullying taking place which they had not been part of.

- Of the 88 bystanders who witnessed cyberbullying 45 (51.1%) reported the bullying or intervened and 43 (48.9%) did not report the cyberbullying.

Incident Rates of Cyberbullying
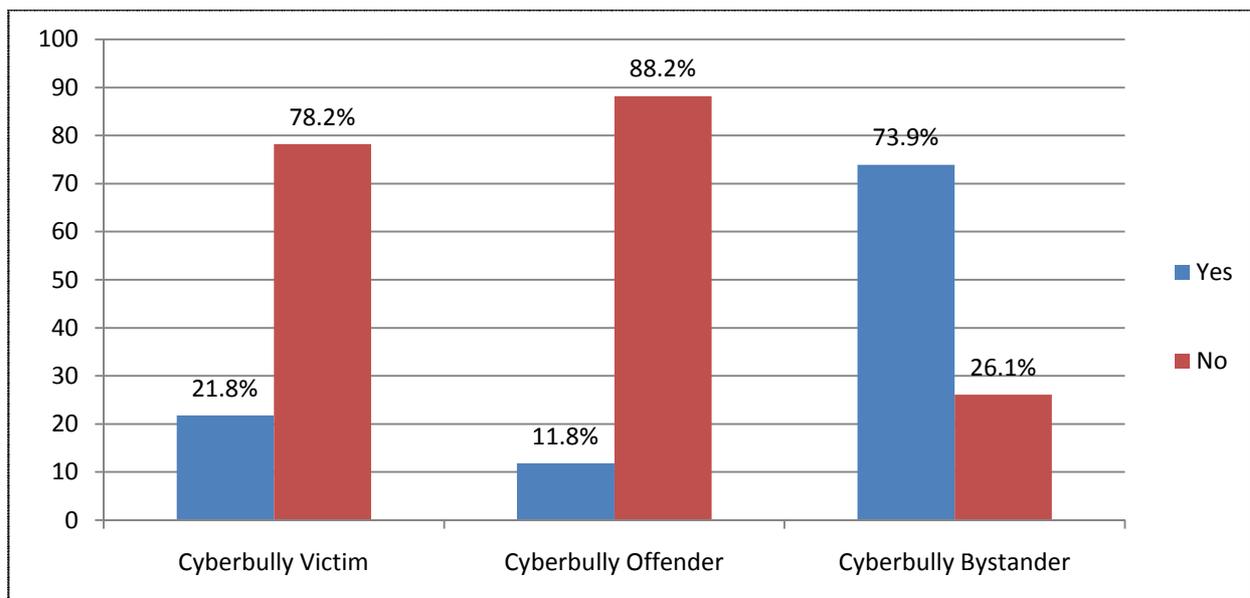
3.3 Frequency of Internet Use

Respondents were asked some questions in relation to their computer usage, availability and internet habits. Respondents were found to have quite high computer usage with 72.3% of respondents reporting that they use the internet every day. This is considerably higher than the national Irish average of 52.25% (CSO, 2011).
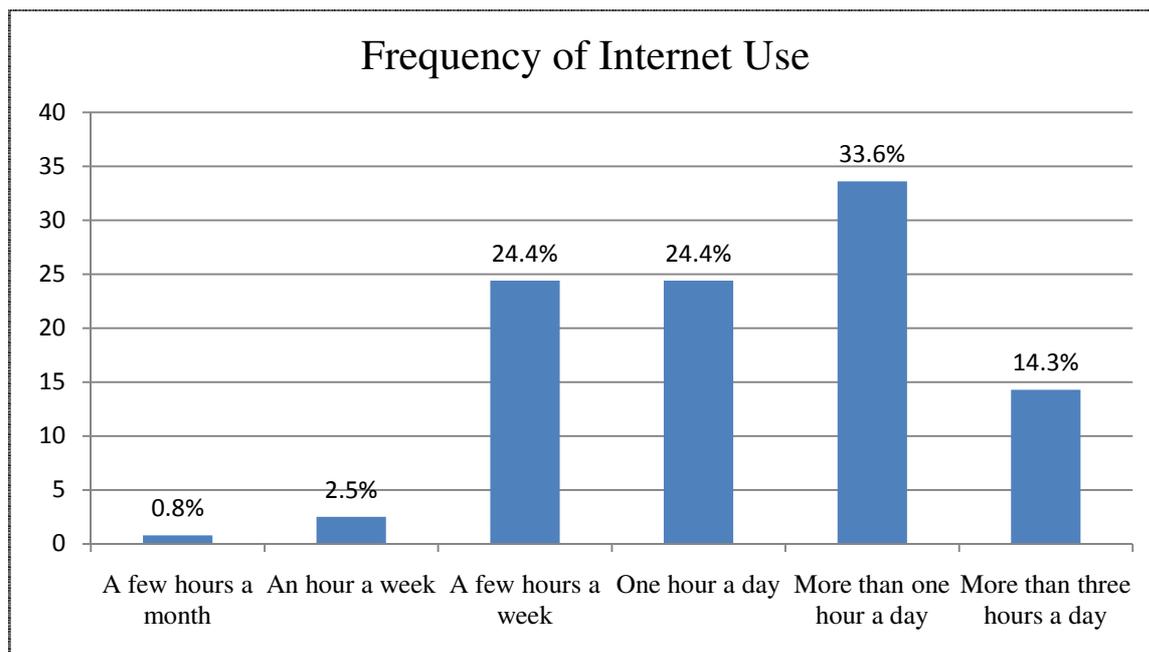
3.4 Computer Availability

No respondents reported that they did not have the internet at home which again is considerably higher than the national Irish average of 87% of post primary school students who have a home computer with internet access. Furthermore 54.6% of the current research sample has their own computer in their bedroom with the national average being 50% (CSO, Census at School Survey, 2011).

	Yes	No
Computer In Your Bedroom	54.6%	45.4%
Computer In Your Kitchen/Family Room	78.2%	21.8%
Have Internet on Your Phone	67.2%	32.8%

3.5 Behaviours of Bystanders to Cyberbullying

	Yes (%)	No (%)
Told parents	6.7	93.3
Told an adult at school	1.7	98.3
Told another student about it	25.2	74.8
At the time helped the person being bullied	10.9	89.1
Got someone else to stop the bullying	2.5	97.5
Stood up to the bully	11.8	88.2
Got back at the bully	2.5	97.5
Later on helped the person being bullied	3.4	96.6
Ignored it	34.5	65.5
Stood by and watched	4.2	95.8
Made a joke out of it	3.4	96.6
Joined in with the bullying	1.7	98.3

Figure Legend:

The table above displays the calculation of respondents who witnessed cyberbullying and the course of action they took following witnessing the cyberbullying. It is important to note that these are the respondents who are central to the current research as it specifically examines their behaviour.

Interestingly 34.5% of the bystanders ignored the bullying, 29.6% of the female respondents' compared to 38.5% of the male respondents admitted to ignoring the cyberbullying. The results supported Rigby and Johnson (2004) that reported the most common response of a bystander is to ignore the bullying.

Hypothesis Testing

3.6 Hypothesis 1

Female bystanders to cyberbullying are more likely to report or intervene than male

bystanders to cyberbullying are.

Ranks

	Gender of Respondent	N	Mean Rank	Sum of Ranks
If you witnessed cyberbullying did you report it or intervene?	Female	41	49.90	2046.00
	Male	47	39.79	1870.00
	Total	88		

Test Statistics[a]

	If you witnessed cyberbullying did you report it or intervene?
Mann-Whitney U	742.000
Wilcoxon W	1870.000
Z	-2.140
Asymp. Sig. (2-tailed)	.032

a. Grouping Variable: Gender of Respondent

A Mann Whitney U test showed that there was a statistically significant difference between

males and females and whether or not they reported or intervened in bullying which they

witnessed. (U = 742, p < 0.05, 2-tailed). Female bystanders have higher levels of reporting

cyberbullying (63.4%) compared to that of males (40.1%); this is demonstrated in table 1 of

Appendix 2.

3.7 Hypothesis 2

Bystanders with higher levels of self-esteem will be more likely to report or intervene in
cyberbullying than bystanders with lower levels of self-esteem.

Group Statistics

	If you witnessed cyberbullying did you report it or intervene?	N	Mean	Std. Deviation	Std. Error Mean
Overall self esteem score	No	42	19.14	5.111	.789
	Yes	45	21.53	5.155	.768

Independent Samples Test

		Overall self esteem score	
		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	.051	
	Sig.	.822	
+ for Equality of Means	t	-2.170	-2.171
	df	85	84.681
	Sig. (2-tailed)	.033	.033
	Mean Difference	-2.390	-2.390
	Std. Error Difference	1.101	1.101
	95% Confidence Interval of the Difference Lower	-4.581	-4.580
	Upper	-.200	-.201

An independent samples t-test found that there was a statistically significant difference
between self-esteem levels between respondents who reported or intervened in cyberbullying
and those who did not. (t(85) = -2.170, p < 0.05, 2-tailed). Respondents who reported or
intervened (mean = 21.53, SD = 5.155) were found to have a higher level of self-esteem than
those who did not report or intervene (mean = 19.14, SD = 5.111).
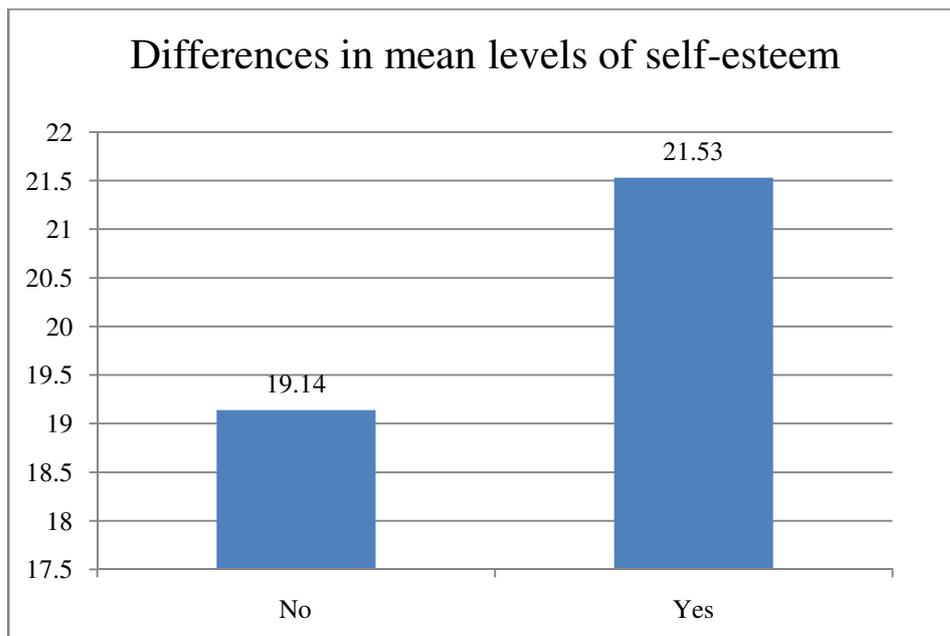
The above bar chart displays the mean differences in levels of self-esteem between bystanders who reported or intervened in cyberbullying and those who did not.

3.8 Hypothesis 3

Bystanders with higher levels of altruism will be more likely to report or intervene in

cyberbullying than bystanders with lower levels of altruism.

Group Statistics

	If you witnessed cyberbullying did you report it or intervene?	N	Mean	Std. Deviation	Std. Error Mean
Total Self Altruism Report Score	No	42	24.50	9.405	1.451
	Yes	44	35.57	11.392	1.717

Independent Samples Test

			Total Self Altruism Report Score	
			Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F		1.505	
	Sig.		.223	
t-test for Equality of Means	t		-4.901	-4.923
	df		84	82.314
	Sig. (2-tailed)		.000	.000
	Mean Difference		-11.068	-11.068
	Std. Error Difference		2.259	2.248
	95% Confidence Interval of the Difference	Lower	-15.560	-15.541
		Upper	-6.577	-6.595

An independent samples t-test showed that there was a statistically significant difference between levels of altruism for those who reported or intervened in cyberbullying and those who did not. (t(84) = -4.901, p < 0.05, 2-tailed). Respondents who reported or intervened (mean = 35.57, SD = 11.392) were found to have a higher level of altruism than those who did not report or intervene (mean = 24.50, SD = 9.405).

The above bar chart displays the mean differences in levels of altruism between bystanders who reported or intervened in cyberbullying and those who did not.

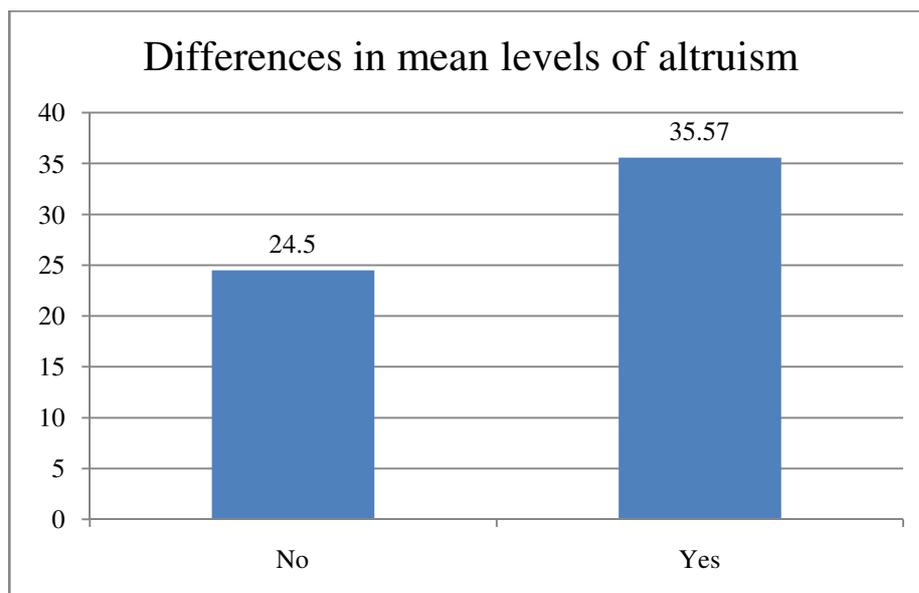## Additional Analysis associated with hypothesis

The current study is aimed at investigating the factors differentiating bystanders who report or intervene in cyberbullying and those who do not. For this reason there was an additional focus on the behaviours of bystanders after witnessing cyberbullying. In total 88 respondents (79.3%) witnessed cyberbullying. As shown in the descriptive analysis (section 3.5) there were 12 different behaviours which respondents reported that they did or did not take part in, the more relevant and significant ones are analysed below.

3.9 Differences between males and females and ignoring cyberbullying which they witness

As females were found to be more likely to report or intervene in incidents of cyberbullying the differences between gender and ignoring cyberbullying was also investigated. A Mann Whitney U test showed that there was not a statistically significant difference between gender and ignoring incidences of cyberbullying. (U = 1600, p > 0.05, 2-tailed). This is demonstrated in tables 2 and 3 located in appendix 2.

3.10 Gender differences between talking to another student about cyberbullying

Ranks

	Gender of Respondent	N	Mean Rank	Sum of Ranks
Told another student about it	Female	54	69.24	3739.00
	Male	65	52.32	3401.00
	Total	119		

Test Statistics[a]

	Told another student about it
Mann-Whitney U	1256.000
Wilcoxon W	3401.000
Z	-3.541
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Gender of Respondent

A Mann Whitney U test showed that there was a statistically significant difference between males and females bystander who witnessed cyberbullying and their experiences of discussing it with another student. (U = 1256, p < 0.05, 2-tailed). Table 4 located in appendix 2 shows 40.7% of females who witnessed cyberbullying spoke to another student compared to 12.3% of males.

3.11 Differences between males and females discussing cyberbullying with their parents.

As females were found to be more likely to report or intervene in incidents of cyberbullying the differences between gender and discussing cyberbullying with parents were also investigated.

Ranks

	Gender of Respondent	N	Mean Rank	Sum of Ranks
Have you ever discussed cyberbullying with your parents?	Female	54	53.66	2897.50
	Male	65	65.27	4242.50
	Total	119		

Test Statistics[a]

	Have you ever discussed cyberbullying with your parents?
Mann-Whitney U	1412.500
Wilcoxon W	2897.500
Z	-2.264
Asymp. Sig. (2-tailed)	.024

a. Grouping Variable: Gender of Respondent

A Mann Whitney U test showed that there was statistically significant difference between females talking to their parents about cyberbullying and males talking to their parents about cyberbullying. Females were significantly more likely to discuss cyberbullying with their parents. (U = 1412.50, p < 0.05, 2-tailed).

3.11 Gender differences and experience of having cyberbullied someone

As there have been varying incident rates of cyberbullying and gender differences reported in the literature on cyberbullying the differences between males and females in the current research and their past experience of cyberbullying someone else was investigated. A Mann Whitney U test showed that there was no statistically significant difference between males and females and their likelihood to have cyberbullied someone in the past. (U = 155.500, p > 0.05, 2-tailed). This is demonstrated in table 6 located in appendix 2. Although the difference was not statistically significant there was a notable difference between males, 16.9% admitted to cyberbullying someone in the past compared to 5.6% of females who admitted to cyberbullying before as demonstrated in table 7 located in appendix 2.

3.12 Differences in self-esteem and perception nobody can do anything to stop cyberbullying

Group Statistics

	Nobody can do anything to stop cyberbullying	N	Mean	Std. Deviation	Std. Error Mean
Overall self esteem score	Diagree	94	21.24	4.942	.510
	Agree	24	17.92	5.469	1.116

Independent Samples Test

		Overall self esteem score	
		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	.279	
	Sig.	.598	
t-test for Equality of Means	t	2.881	2.712
	df	116	33.234
	Sig. (2-tailed)	.005	.011
	Mean Difference	3.328	3.328
	Std. Error Difference	1.155	1.227
	95% Confidence Interval of the Difference Lower	1.040	.832
	Upper	5.616	5.824

An independent t-test showed that there was a statistically significant difference between the levels of self-esteem of respondents that believed nobody could do anything to help stop cyberbullying and those who believed others were able to help stop cyberbullying. ($t(116) = 2.881$, $p < 0.05$, 2-tailed). Respondents who believed others could help stop cyberbullying (mean = 21.24, SD = 4.942) were found to have a higher level of self-esteem than those who believed nobody could do anything to help stop cyberbullying (mean = 17.92, SD = 5.469).

4.0 Discussion

The aim of this research project was to gain a deeper understanding into factors affecting bystander intervention towards cyberbullying as it differs to conventional forms of bullying in that the cyberbullying can be public with multiple bystanders and victims may not know their bullies due to the possible anonymity of cyberbullying therefore the bystander can play a significant role in reducing cyberbullying. As discussed cyberbullying is becoming an increasingly more common problem and one which should be addressed by schools when they outline overall bullying intervention programmes. The current literature highlights the importance of the bystanders to contributing to reducing levels of bullying in schools (Rigby and Johnson, 2005). Li (2006) recommended further investigation into the role of the bystander to cyberbullying who recognised the need for more comprehensive research into the central role of bystanders and how they can help to reduce levels of cyberbullying.

Results from the current research show that cyberbullying is a relatively significant problem in the school with 21.8% of students reporting that they have been cyberbullied. With just over 1 in 5 students reporting experiencing cyberbullying further intervention is required by the school in order to reduce levels of cyberbullying.

The current study specifically examined bystanders to cyberbullying and how bystanders who intervened differed from those who did not. In total 73.9% of the students have directly witnessed cyberbullying taking place, with such a high percentage of the student population witnessing cyberbullying taking place there is a significant opportunity for the school to educate students to be proactive bystanders to cyberbullying.

The results of the current research supported the three hypotheses and largely support the main literature to date on cyberbullying.

4.1 Hypothesis 1:

Female bystanders to cyberbullying are more likely to report or intervene than male bystanders to cyberbullying are.

From the analysis of the relevant variables this hypothesis was accepted ($U = 742$, $p < 0.05$, 2-tailed). The results are consistent with Li (2006) who reported that females are more likely to report cyberbullying than males are. A possible explanation for why females report cyberbullying at higher rates than males do is that they are more overtly aware of cyberbullying taking place and perceive it to be a bigger problem than their male counterparts do. Agatston, Kowalski and Limber (2007) reported that the females in their study perceived cyberbullying to be a bigger problem than males do. These two reasons facilitated the hypothesis that females are more likely to intervene or report in cyberbullying should they witness it talking place.

As expected females are more likely to report or intervene in incidents of cyberbullying which they witness. In a further analysis of gender differences relating to the action that the respondents took after witnessing cyberbullying highlight additional gender differences. Rigby and Johnson (2004) reported the most common response of a bystander is to ignore the bullying behaviour. The current sample supported this as it was found that choosing to ignore the cyberbullying was the most common behaviour taken by bystanders. While there was not a statistically significant difference the current sample ($U = 1600$, $p > 0.05$, 2-tailed.) it was found that 38.5% of the males admitted to ignoring cyberbullying compared to 29.6% of females who admitted to ignoring cyberbullying when it was witnessed.

As mentioned Agatson et al (2007) had previously reported that females perceive cyberbullying to be a bigger problem than males do which may explain why more females chose to report more instances of cyberbullying than males do. Agatson's findings can be

directly related to the current study. The findings show that females are more likely to discuss cyberbullying with their parents than males are, as they are more aware of cyberbullying being a problem. Specifically, females in the current research were significantly more likely to discuss cyberbullying with their parents (U = 1412.50, p < 0.05, 2-tailed). Campbell (2005) reported that parental discussions with their children regarding cyberbullying are proactive measures in helping to reduce levels of cyberbullying. As females are more likely to talk to their parents about cyberbullying they are possibly more overtly aware of it and this increases their likelihood of reporting or intervening in cyberbullying. The research by Campbell above further supports the findings for the current study. In addition to being more likely to talk to their parents about cyberbullying, females in the current study were statistically significantly more likely to talk to another student about cyberbullying (U = 1412.50, p < 0.05, 2-tailed), this shows further that females are more aware of cyberbullying and perceive it to be a bigger problem and males, thus further supporting Agatson et al (2007).

Additional analysis also examined gender differences in prevalence rates of engaging in cyberbullying. Previous studies have shown that there are no significant differences regarding gender and likelihood to cyberbully another person (Ybarra and Mitchell, 2004: Beran and Li, 2005 and 2007: Slonje and Smith, 2008) and in contrast Li (2006) reported significant differences with males being much more likely to engage in cyberbullying behaviors than females are. The current study supports Li (2006) as there were significant gender differences between males and females and carry out cyberbullying. 5.6 percent of females admitted to having cyberbullied someone in the past while 16.9% of males admitted to having cyberbullied someone else before. In the current sample this could be a contributing factor to the gender differences in bystander reporting of cyberbullying. If more

males are involved in higher rates of cyberbullying the likelihood of more main reporting or intervening is likely to be reduced.

Interpreting why females have higher levels of reporting cyberbullying than males do could possibly be explained by social psychological theory stating females are more empathic than men. Batson et al (1996) found that females reported higher levels of empathy than males when told a story about a teenager who was teased, betrayed or rejected (Batson et al, 1996 as cited in Hogg and Vaughan, 2010). The difference was accounted for by Batson as being due to socialisation, stating that females value interdependence and are more other-orientated, whereas males value independence and are more self-orientated. In the current study, higher levels of female reporting from bystanders could be explained by females being more empathic than males. This further supports Campbell (2005) who mentioned that by increasing empathy in students, they would be more likely to intervene in cyberbullying.

In using this information for practical terms it illustrates male's lack or possibly reluctance to report incidents of cyberbullying. This highlights a need for more education perhaps specifically aimed at males in educating them on the benefits of reporting or intervening when they witness cyberbullying. In order for cyberbullying to be effectively targeted both parents and teachers need to be in communication with adolescents.

4.2 Hypothesis 2

Regardless of gender, bystanders with higher levels of self-esteem will be more likely to report or intervene in cyberbullying than bystanders with lower levels of self-esteem.

From the analysis of the relevant variables this hypothesis was accepted ($t(85) = -2.170$, $p < 0.05$, 2-tailed). Self-esteem has shown to be a significant psychological factor in cyberbullying, Hinduja and Patchin (2010) reported that cyberbullying victims and bullies both have significantly lower self-esteem than those who have not been cyberbullying victims

or offenders. One of the explanations given which may explain why adolescents fail to report cyberbullying is how teachers or parents will react to them. Li (2006) found that adolescents often decide not to report cyberbullying as they feel teachers or parents will not do anything to stop the cyberbullying and suggested that self-esteem can play a role in the likelihood of students reporting cyberbullying. The finding form the current study suggests that implementing support mechanisms could improve the likelihood of a student with low self-esteem in reporting cyberbullying. Social support mechanisms could include increased support from the career guidance counsellor, additional academic assistance from the school, King, Vidourek, Davis, and McClellan (2002) reported that by providing academic assistance which improved academic performance improved levels of self-esteem were reported. This could be in the form of afterschool study sessions or additional grinds with teachers. The school could increase physical activity programmes for the students as exercise and sport have been reported to have a positive increase in self-esteem (King et al, 2002). Also workshops to help improve body image to another method the school could employ as this has shown to improve adolescent self-esteem (O'Dea and Abraham, 1999),

If an individual with low self-esteem feels that there is more support in reporting cyberbullying the will possibly be more likely to do so. A further analysis was completed on the mean differences in self-esteem and the perception that nobody can do anything to stop cyberbullying which showed a statistically significant difference ($t(116) = 2.881$, $p < 0.05$, 2-tailed). Those with lower levels of self-esteem tended to believe that there was nothing anybody could do to stop cyberbullying. By educating adolescents that there are ways to help and prevent cyberbullying students with lower levels of self-esteem may feel more confident in reporting it if the support is there from both their families and the school.

The overall findings from the current study and the literature highlight a role for the school in supporting students to report cyberbullying.

4.3 Hypothesis 3

Bystanders with higher levels of altruism will be more likely to report or intervene in cyberbullying than bystanders with lower levels of altruism.

From the analysis of the relevant variables, this hypothesis was accepted ($t(84) = -4.901$, $p < 0.05$, 2-tailed). Studies have shown that adolescents with higher levels of prosocial behaviour are more likely to intervene in incidents of bullying (Warden and Mackinnon, 2003; Camodeca and Goossens, 2005). While the literature is extensive on prosocial behaviour and its effect on bullying there is however limited research on how altruism specifically affects bullying behaviours'. The findings of the current study support Hoover and Anderson (1999) who reported that higher levels of altruism among adolescents lead to a positive change in bullying behaviors. Altruism is recognized as a specific quality which has shown to become more prominent with age (Peterson, 1983). As levels of altruism are evolving with adolescence it is possible to increase altruism with certain mechanisms. Chou (1999) identified how volunteer work in particular can increase levels of altruism among adolescents.

As the current study shows, bystanders to cyberbullying with higher levels of altruism are more likely to report or intervene in cyberbullying, therefore by increasing levels of altruism among students reporting of cyberbullying should increase and ultimately cyberbullying should decrease. The findings from the current study suggest that schools could implement mechanisms which increase altruism will benefit a reduction in the levels of cyberbullying. As mentioned, engaging in volunteer work increases levels of altruism (Chou, 1998). Volunteering could involve volunteer work with the elderly, bag-packing for charities, or assisting younger students with academics or sports couching. The overall findings from the current study and the literature highlight a role for the school in helping to

increase student altruism levels with the aim of improving levels of cyberbullying reporting among the students.

4.4 Limitations of the study

Although the current research provides an insight into cyberbullying in an Irish setting which is currently an under researched area, it is a relatively small sample. The current research examined gender differences which were facilitated by the co-educational nature of the school; however examining cyberbullying in an all male school and an all female school may provide further insight to this area and present a wider observation of gender differences that occur in relation to cyberbullying. The specific methods of how the cyberbullying was conducted were not examined in the current study. Bu including this information in future studies it may give a wider picture of factors affecting bystander intervention and reporting among adolescents.

4.5 Future Implications

The current study has implications for the school given the frequency at which students are witnessing cyberbullying incidents taking place with 73.9% of students witnessing cyberbullying. The school needs to be aware of what cyberbullying is, how it can be prevented in the future, and how to assist students to report it when they encounter whether they are the victim or as a bystander. Parents also could take on a more proactive role in discussing cyberbullying with their children, especially with males as significantly lower rates of males discussed cyberbullying with their parents.

Information that is currently known about traditional bullying is not necessarily all relevant to future implications for the both the school and parents as cyberbullying can differ from traditional bullying. Cyberbully victims do not always know their bullies and this may

prevent them from reporting bullying, traditional bullying has a limited number of bystanders witnessing the bullying, cyberbullying can have thousands of bystanders. Similarly to the victim not knowing the bully the bystander may also not know who they bully is and therefore this is a further reason to prevent them reporting. As the literature has discussed the importance of bystander intervention is widely recognised as a means of reducing bullying and due to the significant nature of bystanders in cyberbullying their influence in reducing cyberbullying is even more important. Cyberbullying is growing problem which is not likely to go away with continuously evolving technology. Cyberbullying is directly correlated to an increase in suicide ideation and suicide itself among adolescents (Hinduja and Patchin, 2010), this focuses the importance of intervention for both parents and teachers. Until more proactive measures are made to increase reporting and intervention cyberbullying will continue to be a scourge in many adolescents' lives which in some situations can have tragic consequences. This current study highlights some ways in which bystander intervention can be increased.

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Appendix 1

Thank you for taking part in this questionnaire. I am a psychology student interested in how a new form of bullying called cyberbullying affects students and I am very grateful for your participation in this questionnaire.

Please **<u>do not</u>** put your name on the questionnaire.

Your teachers, principal and your classmates will not be shown your answers. No one in the school will know what you write, so please answer truthfully.

The results of the survey are completely confidential and anonymous.

Please be as honest as you can when answering the questions and remember there are no right answers.

Thank You

> **Cyberbullying is defined as harassment of another person through electronic methods such as text messages, phone calls, emails, instant messaging (IMing), picture/video clip bullying, websites including blogs and especially social networking sites such as Facebook and Twitter. Cyberbullying can be one of these methods or a combination of any of them.**

1. **Age** _____

2. **Gender** _____

3. **In your home, there is a computer with internet access (check all that apply):**
   ___ In my bedroom
   ___ In my parents' bedroom
   ___ In my sibling(s)' bedroom
   ___ In the living room/family room
   ___ In the kitchen
   ___ I have the internet on my mobile phone which I regularly use
   ___ I do not have the internet at home

4. **On average, how much time do you spend on the internet?**
   ___ None, I never use the internet
   ___ A few hours a month
   ___ An hour a week
   ___ A few hours a week
   ___ One hour a day
   ___ More than one hour a day
   ___ More than three hours a day

5. **When I am online, I spend the most time……. (check the one that is most true for you)**
   ___ Doing homework
   ___ Playing games
   ___ Reading news about the world
   ___ Listening to or downloading music
   ___ On Facebook or other social networking sites

6. Have you ever been cyberbullied before?
___ Never
___ Once or a few times
___ Every month
___ Every week
___ Many times a week

7. Have you ever taken part in cyberbullying?
___ Never
___ Once or a few times
___ Every month
___ Every week
___ Many times a week

8. How often have you heard rumours/gossip about cyberbullying taking place?
___ Never
___ Once or a few times
___ Every month
___ Every week
___ Many times a week

9. Have you ever <u>witnessed</u> but not taken part in cyberbullying?
___ Never
___ Once or a few times
___ Every month
___ Every week
___ Many times a week

10. If you <u>witnessed or heard</u> about cyberbullying taking place what did you do? (Please tick any that apply).

		Please tick
a)	I ignored it	
b)	I told my parents about it	
c)	I told an adult at school about it	
d)	I told another student about it	
e)	At the time I helped the person being bullied	
f)	Later on I helped the person being bullied	
g)	I stood by and watched	
h)	I made a joke out of it	
i)	I joined in with the bullying	
j)	I got someone else to stop it	
k)	I stood up to the person that was doing it	
l)	I got back at the bully later	
m)	I have not witnessed or heard about cyberbullying	

11. If you have witnessed or heard about cyberbullying why did you not do anything about it? (Please tick any that apply).

		Please tick
a)	I did not want to get involved	
b)	I was afraid	
c)	I did not know what to do or who to talk to	
d)	If I told someone, no one would have done anything about it	
e)	It isn't right to tell on other people	
f)	The bully wasn't so bad	
g)	The person being bullied deserved it	
h)	It was not my business, not my problem	
i)	I did not want to get in trouble for telling	
j)	I wouldn't have made a difference	
k)	I didn't want to loose my friends	
l)	I wasn't sure who it was because it was online	
m)	I have not witnessed or heard about cyberbullying	

12. If cyberbullying happened to you, what did you do about it? (Please tick any that apply).

		Please tick
a)	I ignored it	
b)	I told my parents about it	
c)	I told an adult at school about it	
d)	I told another student about it	
e)	I fought back	
f)	I got someone to stop it	
g)	I stood up to the person that was doing it	
h)	I made a joke out of it	
i)	I got back at the bully later	
j)	I have not been cyberbullied	

13. If cyberbullying happened to you, and you did not do anything about it, what was the reason? (Please tick any that apply).

		Please tick
a)	I did not want to get involved	
b)	I was afraid	
c)	I did not know what to do or who to talk to	
d)	If I told someone, no one would have done anything about it	
e)	It isn't right to tell on other people	
f)	The bully wasn't so bad	
g)	I deserved it	
h)	I did not want to get in trouble for telling	
i)	I wouldn't have made a difference	
j)	I didn't want to loose my friends	
k)	I wasn't sure who it was because it was online	
l)	I have not been cyberbullied	

14. Have you ever discussed cyberbullying with your parents

____ Yes
____ No

For these questions, please indicate how the statement reflects how you feel or how true that statement is for you. Please tick the answer most appropriate for you.

		Strongly Disagree	Disagree	Sometimes Agree	Agree	Strongly Agree
15.	It is easier to bully people over the internet than in real life.					
16.	It is less hurtful to bully over the internet because you are not doing it to their face.					
17.	Cyberbullying is a problem in our school					
18.	Cyberbullying is scarier than regular bullying.					
19.	The school can't do anything about cyberbullying because it is outside of school.					
20.	Web sites that make fun of people are funny.					
21.	It is easier to stand up for myself against bullies on the internet.					
22.	Cyberbullying is just as common as bullying in the school.					
23.	I feel anxious about being bullied when I am doing things online.					
24.	I have visited websites, blogs or Facebook pages to read mean things that others have posted.					
25.	It is hard to know who the person is that is doing the cyberbullying.					
26.	If you report cyberbullying, you will be the next one bullied.					
27.	My friends from school are not as nice to me when I am speaking to them online.					
28.	It's none of my business if someone is bullied on a Facbook I am visiting.					

		Strongly Disagree	Disagree	Sometimes Agree	Agree	Strongly Agree
29.	The people who cyberbully are some of the most popular people in the school.					
30.	Nobody can do anything to stop cyberbullying.					
31.	It is worse to hit or punch a person than to send them a rude e-mail, instant message, or text message.					
32.	I often don't want to go to school because of cyberbullying.					
33.	When I am online (including Facebook) I have logged on under another user's ID.					
34.	I have defended someone online that I thought was being harassed or bullied.					
35.	I have more online friends (friends that I met online) then "real life" friends.					
36.	I am concerned about being cyberbullied in the future.					
37.	I use my mobile phone to send text messages more often than I do to speak to others.					
38.	The people that are being cyberbullied deserve it.					
39.	I find it easier to make friends online than in person.					
40.	People should be allowed to say whatever they want about others on their own personal web pages.					

For these questions, please indicate how the statement reflects how you feel or how true that statement is for you.
Please circle the answer most appropriate for you.

		STATEMENT	Strongly Agree	Agree	Disagree	Strongly Disagree
41.		I feel that I am a person of worth, at least on an equal plane with others	SA	A	D	SD
42.		I feel that I have a number of good qualities	SA	A	D	SD
43.		All in all, I am inclined to feel that I am a failure	SA	A	D	SD
44.		I am able to do things as well as most other people.	SA	A	D	SD
45.		I feel I do not have much to be proud of.	SA	A	D	SD
46.		I take a positive attitude toward myself.	SA	A	D	SD
47.		On the whole, I am satisfied with myself.	SA	A	D	SD
48.		I wish I could have more respect for myself.	SA	A	D	SD
49.		I certainly feel useless at times.	SA	A	D	SD
50.		At times I think I am no good at all.	SA	A	D	SD

For these questions, please indicate how the statement reflects how you feel or how true that statement is for you. Please tick the answer most appropriate for you.

		Never	Once	More than once	Often	Very often
51.	I have helped push a stranger's car out of the snow.					
52.	I have given directions to a stranger.					
53.	I have made change for a stranger.					
54.	I have given money to a charity.					
55.	I have given money to a stranger who needed it (or asked me for it).					

		Never	Once	More than once	Often	Very often
56.	I have donated goods or clothes to a charity.					
57.	I have done volunteer work for a charity.					
58.	I have donated blood.					
59.	I have helped carry a stranger's belongings (books, parcels, etc.).					
60.	I have delayed an elevator and held the door open for a stranger.					
61.	I have allowed someone to go ahead of me in a lineup (at Zerox machine, in the supermarket).					
62.	I have offered a stranger a lift in my car.					
63.	I have pointed out a clerk's error (in a bank, at the supermarket) in undercharging me for an item.					
64.	I have let a neighbour whom I didn't know too well borrow an item of some value to me (e.g. a dish, a tool etc.).					
65.	I have bought charity Christmas cards deliberately because I knew it was a good cause.					
66.	I have helped a classmate who I did not know that well with a homework assignment when my knowledge was greater than his or hers.					
67.	I have before being asked, voluntarily looked after a neighbour's pets or children without being paid for it.					
68.	I have offered to help a disabled or elderly stranger across a street.					
69.	I have offered my seat on a bus or train to a stranger who was standing.					
70.	I have helped an acquaintance to move households.					

PLEASE KEEP THIS PAGE

If you have a problem with bullying or anything else mentioned in this questionnaire please talk to someone.   You can talk to your parents or your career guidance teacher, Mr Core for 2nd, 4th and 6th Years or Mr Farrell for 1st, 3rd and 5th Years.

If you do not feel comfortable talking to your parents or a teacher you can also talk to Childline in confidence for free on **1800 66 66 66** or you can also talk to someone in private on their website **www.childline.ie**

It is important to remember that bullying happens to lots of people, and you are not the only one that this happens to. There are people in your school and in organisations like Childline who can listen to you and help you.

If you have any questions regarding this questionnaire or you would be interested in the results please contact cyberbullyingquestionnaire@gmail.com

Thank you for taking part

Appendix 2

Table 1:

If you witnessed cyberbullying did you report it or intervene?

Gender of Respondent			Frequency	Percent	Valid Percent	Cumulative Percent
Female	Valid	No	15	27.8	36.6	36.6
		Yes	26	48.1	63.4	100.0
		Total	41	75.9	100.0	
	Missing	-9	13	24.1		
	Total		54	100.0		
Male	Valid	No	28	43.1	59.6	59.6
		Yes	19	29.2	40.4	100.0
		Total	47	72.3	100.0	
	Missing	-9	18	27.7		
	Total		65	100.0		

Table 2:

Ranks

	Gender of Respondent	N	Mean Rank	Sum of Ranks
If you witnessed cyberbullying did you ignore it?	Female	54	57.13	3085.00
	Male	65	62.38	4055.00
	Total	119		

Table 3:

Test Statistics[a]

	If you witnessed cyberbullying did you ignore it?
Mann-Whitney U	1600.000
Wilcoxon W	3085.000
Z	-1.005
Asymp. Sig. (2-tailed)	.315

a. Grouping Variable: Gender of Respondent

Table 4:

Told another student about it

Gender of Respondent			Frequency	Percent	Valid Percent	Cumulative Percent
Female	Valid	No	32	59.3	59.3	59.3
		Yes	22	40.7	40.7	100.0
		Total	54	100.0	100.0	
Male	Valid	No	57	87.7	87.7	87.7
		Yes	8	12.3	12.3	100.0
		Total	65	100.0	100.0	

Table 5:

Ranks

	Gender of Respondent	N	Mean Rank	Sum of Ranks
Have you ever cyberbullied someone before?	Female	54	56.31	3040.50
	Male	65	63.07	4099.50
	Total	119		

Table 6:

Test Statistics[a]

	Have you ever cyberbullied someone before?
Mann-Whitney U	1555.500
Wilcoxon W	3040.500
Z	-1.908
Asymp. Sig. (2-tailed)	.056

a. Grouping Variable: Gender of Respondent

Table 7:

Have you ever cyberbullied someone before?

Gender of Respondent			Frequency	Percent	Valid Percent	Cumulative Percent
Female	Valid	No	51	94.4	94.4	94.4
		Yes	3	5.6	5.6	100.0
		Total	54	100.0	100.0	
Male	Valid	No	54	83.1	83.1	83.1
		Yes	11	16.9	16.9	100.0
		Total	65	100.0	100.0	

(letter from principal removed to preserve school anonymity)