Literature Review

'The Prevalence and Impact of Bullying Linked to Social Media on the

Mental Health and Suicidal Behaviour Among Young People'

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The Department of Education and Skills (DES) and the HSE National Office for Suicide Prevention commissioned the following literature review to be completed in fulfilment of Action 11 of the *Action Plan on Bullying* (Dept. of Education and Skills, 2013). A briefing report which provides a summary of the literature review is also available.

Both briefing report and literature review are available to download from the DES website at www.education.ie and HSE National Office for Suicide Prevention website at www.nosp.ie.

The *Action Plan on Bullying* is available to download from the DES website at www.education.ie.

Action 11:

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11. Research on prevalence and impact of bullying linked to social media on the mental health and suicidal behaviour among young people.
The working group welcomes the agreement of the National Office for Suicide Prevention to facilitate a literature review to examine the prevalence and impact of bullying linked to social media on the mental health and suicidal behaviour among young people within the school setting. In addition, the review may identify at risk groups who may be particularly vulnerable to this form of bullying to enable the development of appropriate preventative measures for the whole school community.

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1 Executive Summary

The purpose of this literature review was to assess the current empirical understandings of the prevalence, effects and ways to address cyberbullying among young people. The review employed a meta-synthesis as a means of integrating and summarising a large body of research evidence with a view to providing a comprehensive overview of cyberbullying among young people, and to address key objectives and research questions. The following key points emerged from the literature review;

Prevalence and Involvement in Cyberbullying

- Most young people involved in cyberbullying also have experience of traditional bullying, and prevalence rates of cyberbullying are usually lower than those for traditional bullying. In Ireland, approximately 23% of young people have experienced traditional bullying while 4% of these have experienced cyberbullying.

- Young people involved in cyberbullying tend to show a number of internalising and externalising problems. Cyber victims can have poor peer relationships, while cyber bullies may be seen as popular among peers but also display conduct or behavioural problems. Bully-victims may show the most negative attributes of all groups over the long term.

- Studies find that while many young people witness cyberbullying, most do nothing to intervene because they dislike the victim, fear becoming victims themselves, fail to see the harm caused or, they lack the confidence to intervene.

- There are no clear differences between genders or age groups for involvement in cyberbullying although this may be confounded by variation in research designs used across studies.

Impacts of Cyberbullying

- Those who are cyberbullied show similar negative impacts to traditional victims including depression, anxiety, psychosomatic problems, academic problems, poor relationships, self-harm and suicidal ideation.

- Cyberbullies have shown a range of negative impacts of their involvement in cyberbullying including depression, poor empathy, suicidal ideation, and conduct problems although the direction of causation is not clear from the research as yet.

- Cyber bully-victims appear to be at risk of the most severe emotional, psychological and social problems experienced by either bullies or victims and tend to be rejected by their peers more than other groups.

- There is disagreement in the literature as to whether there are either gender or age differences in the types and severity of impacts experienced by those involved in cyberbullying.

Environmental Influences

- Family functioning and parent-child relationships can influence both the risk of becoming involved in cyberbullying and the extent of negative impacts experienced by those who do become involved.

- Positive and supportive peer relationships have been found to buffer the negative impacts of being cyber bullied. In contrast, peer rejection can be linked to both greater risks of being cyber bullied and of more intense negative impacts.

- School climate and having trust in school authorities to effectively deal with cases of cyberbullying have been linked to reductions in incidents and higher levels of reporting from students.

- Some researchers have argued that media reporting of cyberbullying over emphasises the negative impacts and the extent of cyberbullying in young people and claim this type of reporting can hinder intervention strategies and help seeking behaviour in young people.

Responding to Cyberbullying

- A number of strategies have been found to be counter-productive in addressing cyberbullying including; the use of punitive sanctions; restorative conferencing

when leaders are not sufficiently trained and; peer mentoring approaches that have poor training or ongoing support services

- Strategies that have been found to be effective in addressing cyberbullying include; problem focused coping strategies; involving and educating parents; positive school climate; clear school policies on how to deal with cyberbullying; training for teachers and school staff and; involving students in forming policies and deciding on sanctions

2 Methodology

2.1 Research Design

Research on cyberbullying among young people has emerged primarily within the past decade and to some extent is still in its formative stages. In this sense much of the existing research focuses on establishing working definitions of cyberbullying and general prevalence levels in different populations and therefore it tends to be largely descriptive. While this type of information is important as a starting point in understanding the phenomenon of cyberbullying and how it affects young people it is only in the past few years that research has begun to turn to a deeper explanation of how experiences with cyberbullying impacts on the lives of young people and the possible causes for involvement in cyberbullying. These deeper understandings of the processes and impacts of cyberbullying can in turn help to inform the development of preventative and intervention measures to address cyberbullying.

This literature review will use a meta-synthesis as a means of integrating and summarising a large body of research evidence to give a comprehensive overview of the phenomenon of cyberbullying among young people. A meta-synthesis is primarily used to collate information from qualitative research studies but has been used successfully when applied to quantitative research also (e.g. Tokunaga, 2010). This approach can aid in determining areas of consistency and discrepancy within a large body of research with reference to the research designs and methodological approaches used.

Meta-synthesis was chosen for this literature review as there is some evident disagreement among findings from the cyberbullying research (e.g. Olweus, 2012; Hinduja & Patchin, 2012) and there is wide variation in the types of methodologies used to date (Farrington & Ttofi, 2009; Tokunaga, 2010). Also, there is sufficient research

and reporting on the topic to allow for a meaningful synthesis to be conducted but not enough rigorous quantitative or experimental research to allow for a meta- analysis. Understandably, it is not possible to randomly assign young people for the purposes of measuring the impact of being bullies or bullying another and much of the available research is likely to use naturalistic occurrences of bullying to draw its conclusions. A meta-synthesis therefore is most appropriate for this topic as it will allow for research findings from a variety of research approaches, including qualitative research, and research conducted with a range of individuals (e.g. teachers, parents, and young people) to be collated to help form recommendations for best practice in reducing and preventing cyberbullying.

2.2 Aims, Objectives and Research Questions

The broad aims of this literature review are 1) to establish the prevalence of cyberbullying among young people and 2) to determine the impact of cyberbullying on the mental health and suicidal behaviour of young people.

Specific objectives for this literature review include;

- Establishing gender, age and environmental factors that influence involvement in and impacts of cyberbullying on different groups of young people.
- Identifying risk factors for involvement in cyberbullying, as bullies, victims or both, and its impact on mental health and suicidal ideation among young people.
- Assessing the effect of the environment, family, industry and the media on addressing and/or preventing cyberbullying.
- Assessing the impact of awareness raising on cyberbullying and how this affects the mental health of young people.
- Establishing the effectiveness of prevention and intervention strategies on tackling cyberbullying.

In addition a number of research questions were formed to be answered through the process of the current literature review and will be addressed in the chapters to follow;

1) What is cyberbullying and how prevalent is it among Irish young people by age, gender and/or setting?
2) Who is most at risk of becoming involved in cyberbullying?
3) What are the impacts of cyberbullying on victims, bullies and those who witness it, in particular in terms of mental health, suicidal ideation and self-harm?

4) What is the influence of the environment, interpersonal relationships and the media on cyberbullying for those involved and not involved?

5) What role do stakeholders (e.g. parents, schools, industry, policy makers) play in raising awareness of cyberbullying and preventing or intervening in incidents of cyberbullying?

6) How effective are current prevention and intervention programmes in stopping or reducing cyberbullying among young people?

2.3 Issues in Interpreting the Empirical Literature

Over the past number of years interest in the topic of cyberbullying has increased and there is currently a large body of research that deals with this phenomenon. Despite this, there are still a number of outstanding issues that continue to cause disagreement and controversy that have yet to be fully resolved. These issues can make interpretation and integration of research findings more difficult and any review such as the current one should be read with these in mind. The main areas of concern that need to be considered in understanding a review of the literature on cyberbullying and its impacts are;

1. **Problems of definition** – While the term cyberbullying has been used in Ireland for some time in countries with primary languages other than English there is marked variation in terms or labels used to refer to the same behaviour (Nocentini et al., 2010). This can cause problems in trying to compare research from different European countries when studies are potentially measuring different things. In addition, there may be differences of understanding between researchers and research participants in measuring the incidence of cyberbullying. Not all studies provide participants with a clear definition of what is meant by cyberbullying when measuring it which can influence the findings of those studies. For example, Vaillancourt et al. (2008) found that the same measurement instrument yielded varying findings depending on whether it included a definition of cyberbullying or not. Other potential problems with defining cyberbullying are outlined in the next chapter.

2. **Variation in Research Designs** – Related to possible areas of confusion in the definition of cyberbullying, research design, and in particular the choice of survey instruments for different studies, can influence findings. For example,

some studies require an incident to meet a number of strict criteria before it is recorded as cyberbullying, whereas other studies will count any act that is reported as 'mean' or 'nasty' as a case of cyberbullying. An additional feature of survey instruments that leads to different findings across studies is the time frame of experiences, so that some surveys will query behaviour over the past year, some the past few months and others within the past week (Berne, et. al, 2012). Studies that have investigated young people's interpretations of cyberbullying have found that young people can be quite nuanced in their own definitions of what constitutes an act of bullying and research findings may not always reflect this (Cuadrado, 2011). In addition, some studies measure prevalence of bullying or cyberbullying among young people by using peer nominations where participants are asked to give the names of others in their class or school who are bullies or victims as opposed to asking about participant's own behaviour, which can lead to further confusion in amalgamating findings (e.g. Boulton, Smith & Cowie, 2010; Olweus, 2013).

The majority of studies in this area are based on survey type research designs. These studies are useful in attaining information on prevalence and characteristics of those involved or not involved in cyberbullying. However, if we are to better understand the experiences and impacts of cyberbullying among young people it is also necessary to conduct more qualitative research that allows young people the opportunity to express their understandings.

3. **Study samples** – The wide variation in the number of participants in a study, the age of participants and the levels of awareness of cyberbullying and/or experience with intervention programmes can affect comparisons of study findings. Normal developmental differences between younger children and adolescents will affect understandings of bullying/cyberbullying in participants (Salmivalli, 2010; Smith, Cowie, Olafsson & Liefooghe, 2002). Increased unsupervised access to the internet and social media in adolescence will likely also have an effect on the level of cyberbullying experienced or witnessed by participants when compared to younger children (Livingstone & Haddon, 2009; Smith et al., 2002). Also, some countries have a longer history of access to the internet than others and variation in prevalence of cyberbullying across these countries is likely to be found (see Livingstone & Haddon, 2009 for discussion of

this issue). Finally, levels of awareness of cyberbullying, the use of intervention programmes and school and policy led actions may have an effect on both the incidence of cyberbullying and the coping strategies of young people who are targeted online.

4. **Rapid expansion of technology** – By its nature, the internet, social media and technology changes and shifts at a rapid pace. Access to the internet is no longer exclusively by means of a home computer with the increasing use of smart phones among younger people (Livingstone & Haddon, 2009). The popularity of different websites changes over time (although Facebook remains one of the most widely used; En Kwan & Skoric, 2013), and some adults feel they are unable to keep pace with their children leaving them unable to effectively monitor use and/or abuse (Livingstone & Haddon, 2013). This also means that advice given to parents, schools and, policy makers can become outdated in a relatively short space of time and highlights the need to continuously revise guidelines to meet the changing experiences of young people.

2.4 Search Criteria for the Current Literature Review

For the purpose of the current literature review a number of inclusion and exclusion criteria were employed to facilitate relevant literature searching. Due to the expansive nature of the current literature review these criteria were loosely defined and many journal articles were subsequently included or excluded based on other factors (e.g. lack of rigour in research methods, too small a sample size for useful comparison etc.).

Inclusion and Exclusion Criteria
- Study focused on primary or secondary school students. Studies based on university or adult samples excluded.
- Published in the English language.
- Topic of the study was cyberbullying including those that compared traditional bullying to cyberbullying. (Some studies with exclusive focus on traditional bullying were also included in order to better explain similarities/differences between the two).
- Both quantitative and qualitative studies were included to give a broader understanding of the topic.

- Published in the past ten years, to give an indication of the most current and relevant research findings given the changing nature of access to and use of the internet.

- Peer reviewed research. This applied to journal articles only and not to grey literature.

- Addresses at least one of the study's research questions as outlined above.

- Studies were based on children from the community (i.e. not from clinical or prison populations) so that findings could be applied to the general school population.

Searching was conducted first by entering a range of keywords into chosen databases, then archives of individual journals were searched using the same keywords, individual reference lists of journal articles were reviewed, and finally an internet search of relevant grey literature was conducted. The list of databases, journals and keywords are given in boxes 2.1 and 2.2 below. A total of 152 research articles were deemed suitable for inclusion in the current literature review.

Box 2.1 Keywords and Databases used to search for research studies

Keywords (various combinations used); adolescence; adolescent; children; cyber bullying; cyberbullying; cyber victimisation; cyber aggression; cyber harassment; electronic bullying; electronic harassment; internet bullying; impacts; online bullying; phone bullying; text bullying; self harm; suicide

Databases (number of articles returned in parenthesis)

- **Campbell Systematic Reviews (1)**
- **Cochrane Library (3)**
- **ERIC (28)**
- **Google Scholar (16, 400)**
- **JSTOR (176)**
- **PsychInfo (65)**
- **Science Direct (1,162)**
- **Web of Science (96)**
- **Note: Some of the articles returned were duplicated in other databases, were found not to be relevant on reading the abstract, or were unavailable in full text format.**

Box 2.2 Individual Journals Accessed for relevant studies

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- Aggression and Violent Behavior
- Annual Review of Clinical Psychology
- Archives of Suicide Research
- Australian Journal of Guidance and Counselling*
- Child and Adolescent Mental Health
- Children and Youth Services Review
- Computers in Human Behavior
- Cyberpsychology, Behavior & Social Networking
- Emotional and Behavioural Difficulties*
- European Journal of Developmental Psychology*
- European Psychiatry
- Journal of Adolescent Health
- Journal of Applied Developmental Psychology
- Journal of Community and Applied Social Psychology*
- Journal of Early Adolescence
- Journal of School Psychology
- Journal of Youth and Adolescence*
- New Media and Society
- Personality and Individual Differences
- Psychological Assessment
- School Psychology International*

*Journals that produced special issues on the topic of cyberbullying

3 Prevalence and Involvement in Cyberbullying

Bullying among young people has long been recognised as an issue of concern for parents, teachers, schools, and policy makers as well as young people themselves. With frequent use of the internet reaching over 90% of young people in some countries (Livingstone & Haddon, 2009) a new dimension to bullying has been made possible. While access to the internet brings with it a host of benefits such as the possibility to socialise with friends, education, gaining information on personal health issues, and fun, for some it can also present risks and negative experiences. This chapter sets out to answer two of the research questions proposed in the chapter above – that of the estimated prevalence of cyberbullying within Ireland and the risk factors for involvement in cyberbullying for young people. First, however, it is useful to explain exactly what is meant by the term cyberbullying in the context of the current literature review and how it relates to the established understandings of youth bullying.

3.1 What is Cyberbullying?

Cyberbullying is a complex and multi-faceted phenomenon that can occur in a number of different forms and through a variety of electronic mediums. The complexity and range of behaviours that constitute cyberbullying is reflected in the lack of consensus among researchers on a clear definition of the term. A sample of the variety of definitions that have been proposed by researchers in the field is given in Table 3.1

Berne and colleagues (2012) reviewed 44 quantitative instruments reporting to measure cyberbullying among young people and found that more than half of them used terms other than cyberbullying (e.g. internet harassment) while also claiming to measure cyberbullying. The authors also found wide variation in the ways that cyberbullying was measured in these instruments ranging from just a few items to multiple sub-scales, and there was considerable diversity in the devices/media that are assessed in them. They conclude their review by urging researchers in this area to find a consistent and agreed upon conceptualisation of the term cyberbullying and a greater focus on the psychometric properties of instruments being used to measure it (Berne et al., 2012).

Table 3.1

Some of the definitions of cyberbullying that have been proposed in the literature

Author(s)	Conceptual Definition of Cyberbullying
Aftab (2006)	When a child, preteen or teen is tormented, threatened, harassed, humiliated, embarrassed or otherwise targeted by another child, preteen or teen using the internet, interactive and digital technologies or mobile phones. It has to have a minor on both sides, or at least have been instigated by a minor against another minor.
Hinduja & Patchin (2012)	Wilful and repeated harm inflicted through the use of computers, cell phones, and other electronic devices (p.5)
Li (2007)	The use of information and communication technologies such as email, cell phone and pager text messages, instant messaging, defamatory personal Web sites, and defamatory online personal polling Web sites, to support deliberate, repeated, and hostile behaviour by an individual or group that is intended to harm others (p. 1779)
Pearce, Cross, Monks, Waters & Falconer (2011)	When, over a period of time, an individual or a group use information and communication technologies (ICT) to intentionally harm a person, who finds it hard to stop this bullying from continuing. (p. 1)
Smith et al. (2008)	An aggressive intentional act carried out by a group or individual, using electronic forms of communication, repeatedly and over time against a victim who cannot easily defend him or herself (p. 376).
Tokunaga (2010)	Any behaviour performed through electronic or digital media by individuals or groups that repeatedly communicates hostile or aggressive messages intended to inflict harm or discomfort on others (p 278).
Willard (2007)	Being cruel to others by posting harmful material or engaging in other forms of social cruelty using the internet or other digital technologies, such as cell phones...Direct cyberbullying involves repeatedly sending offensive messages. More indirect forms of cyberbullying include disseminating degrading materials or sensitive personal information or impersonating someone to cause harm.

Research on traditional bullying, in contrast, has a longer and more cohesive history. Dan Olweus, based in Norway, has been one of the most prominent researchers in this area being one of the first to create a school based anti-bullying intervention (Olweus, 2012; 2013). As a consequence it is Olweus' definition of bullying that is

generally accepted within the literature. He proposes that bullying is comprised of three specific criteria, 1) that there is an intention to harm those targeted by bullies, 2) that it occurs repeatedly over time and, 3) that there is a power imbalance between the aggressor(s) and their target(s). Cyberbullying does appear to share these features to some extent (Calvete, Orue, Estevez, Villardon & Padilla, 2010; Nocentini et al., 2010; Tokunaga, 2010). In particular cyberbullying is similar to what has been termed indirect or relational bullying, which usually involves actions such as spreading rumours or actively excluding individuals from groups (Arsenault, Bowes & Shakoor, 2010). Further support for studying cyberbullying within the context of traditional bullying comes from research that finds considerable overlap between traditional victims and cyber victims and traditional bullies and cyberbullies, with up to 93% of cyber victims also having been bullied in face to face or traditional means also (Bauman, Toomey & Walker, 2013; Olweus, 2013). This research suggests that it is the behaviour of bullying, through whatever means, that is most important to consider particularly in developing intervention programmes to tackle bullying/cyberbullying.

However, there are also a number of nuances between traditional and cyberbullying which researchers have increasingly drawn attention to. For example, the nature of cyberbullying, being conducted via electronic media, means that there is no way for the bully to see the victims' immediate response to an attack and thereby be affected by it. This feature has led some researchers to argue that the potential for the bully to feel remorse or guilt for their actions is blunted and may lead to disinhibition or deindividuation in bullies, which in turn may mean that bullies spend less time thinking about, or are unaware of, the consequences of their bullying (Renati, Berrone & Zanetti, 2012; Sahin, 2012). In recent years some additional criteria have subsequently been added to distinguish traditional and cyber bullying and to acknowledge the differences inherent in the two. These criteria refer to the potential for online bullies to remain anonymous; the 24/7 nature of electronic media and; the possibility to have a large audience to bullying incidents online.

Table 3.2

Criteria for Behaviour recorded as Traditional or Cyberbullying

Criteria	Traditional Bullying	Cyber Bullying
Intention	To harm, upset or embarrass	As perceived by the victim. Impact on victim with or without conscious intention of aggressor
Repetition	Occurs frequently over time.	Need occur only once but can be viewed by numerous others repeatedly or forwarded to others indefinitely
Power Imbalance	Victim has less power due to physical or psychological factors or isolation	Less clear. May be due to higher social status or higher level of proficiency in technology.
Anonymity	Not usually an issue	Nature of social media that aggressors can often remain anonymous creating a power imbalance for the victim
Publicity	Public acts of bullying seen as most severe form of traditional bullying	Acts can involve a large audience – e.g. on public forums, video or pictures distributed through social networking

Despite the opportunity to remain anonymous online, for most young people who become victims of cyberbullying their aggressor is known to them (estimates of victims who know their online bully range between 43% and 80%; Cassidy, Faucher & Jackson, 2013) and is often the same individual or group of individuals who bully them offline (Dempsey, Sulkowski, Dempsey & Storch, 2011; Jose, Kljakovic, Scheib & Notter, 2011). This suggests that anonymity is not always a defining feature of cyberbullying (Tokunaga, 2010). However, other studies have found that the aspect of anonymity in cyberbullying is seen as the most disturbing by young people and induces fear and anxiety in victims (Slonje, Smith & Frisen, 2013). Anonymity also poses obvious problems for adults who wish to intervene in cyberbullying acts if they have no way of discovering who is conducting the bullying and therefore may be limited in the responses they can offer.

Repetition of a bullying act can also represent a different experience when comparing traditional and cyberbullying. While it is used as a defining criteria for traditional bullying to differentiate between bullying and single acts of aggression,

within cyberbullying a single aggressive act can be repeated indefinitely without further input from the original aggressor (e.g. an online post that can be viewed by many others; forwarding pictures or video to others). In this way there is potentially a larger audience of bystanders to an act of cyberbullying and an individual can be victimised repeatedly from one initial act (Nocentini, et al., 2010; Slonje, Smith & Frisen, 2013). However, cyberbullying does not always involve a public act of bullying, for example, sending threatening or upsetting text messages or instant messages (IMs) online where only the individual targeted is intended to read them.

   We can also make distinctions between the methods by which cyberbullying can be carried out (e.g. text messages, email, online posts etc.) and the kind of behaviour that occurs through that method. The methods that can be used to cyberbully another include; text messaging via mobile phones; e-mail; instant messaging; via social networking sites; web sites and; online gaming platforms. As outlined above, many researchers argue that the method by which cyberbullying is conducted may be less important than the behaviour taken in terms of understanding the risk factors for involvement in cyberbullying and the impacts of being targeted. For this reason, much of the current research tends to ask participants about the types of bullying they encounter online or through mobile phones rather than the means by which they have been bullied. A list and explanation of the behaviours that may be regarded as cyberbullying, as outlined by Kowalski, Limber and Agatston (2012) and other authors (e.g. Cassidy et al., 2013) is given in Table 3.3., it should be noted however that while such categories have been used to group cyberbullying behaviours by researchers, most often when asking participants about their experiences, a generic term 'cyberbullying' is used and the prevalence or impacts of different forms are not calculated.

Table 3.3

Some Types of Cyberbullying

Behaviour	Description
Flaming	Argumentative, abusive or insulting exchanges between two individuals online
Harassment	Repetitive posting of threatening or offensive messages sent to or about a target individual
Denigration	Posting or sharing information about another that is untrue or derogatory
Impersonation	Gaining access to another person's online account and posing as them to post negative or humiliating information in the guise of that person
Outing and Trickery	Sharing personal and embarrassing information about another online, can be in the form of pictures or videos
Exclusion or Ostracism	Actively excluding or 'defriending' another from online social groups
Happy Slapping	Uploading digital recordings of assaults on targeted individuals for others to see

3.2 How Prevalent is Cyberbullying?

Some researchers have reported increases in cyberbullying over the past five years or so (e.g. Cassidy, Brown & Jackson, 2012; Kowalski, Limber & Agatston, 2012) while others have stated that the prevalence of cyberbullying has remained relatively stable over the past decade (e.g. Hinduja & Patchin, 2012; Olweus, 2012; 2013; Smith, 2012). Such contrasting claims can to some extent be attributed to a number of methodological differences between research studies including, differing definitions of the term 'cyberbullying', the country in which data are collected, the time frame of participant's responses (i.e. if participants are asked if they have ever been cyberbullied compared to within the past month) and, the ages of participants in the study (Kowalski, Limber & Agatston, 2012; Tokunaga, 2010). One means of addressing this inconsistency in the literature was suggested by Ybarra et al. (Ybarra, Boyd, Korchmaros & Oppenheim, 2012) who measured the prevalence of bullying and cyberbullying with two different forms of the same questionnaire. One version included a definition of the term bullying and used the word 'bully' throughout when asking participants about their experiences. The second version excluded the definition and listed behavioural experiences without using the term bully. They found that the highest prevalence rates were reported in the second version of the questionnaire. The use, or omission, of a definition of bullying or

cyberbullying, they suggest, leads to a high number of false positives in studies and can be a source of some of the inconsistencies within the literature.

The majority of studies, despite having wide variation in their estimates of the proportion of young people experiencing cyberbullying, do however agree that the numbers of young people involved in cyberbullying is much lower than the proportion of young people involved in traditional bullying (Cassidy et al., 2012; Olweus, 2012; O'Neill, Gehran & Olafsson, 2011; Smith, 2012; Tokunaga, 2010).

For example, in some countries (e.g. Australia, Norway, UK and US) estimated prevalence rates of young people who have been cyberbullied range from 4% to over 20%, and the prevalence rates of those who have cyberbullied others range from 3% to 18% (e.g. Campbell, Slee, Spears, Butler & Kift, 2013; DeVoe & Murphy, 2011; Hindaju & Patchin, 2012; Mishna, Cook, Gadalla, Daciuk & Solomon, 2010; Modecki, Barber & Vernon, 2009; Olweus, 2012; 2013). Prevalence rates of those who have been bullied via traditional means range from 9% to 32% and rates of those who report bullying others range from 6% to 22% (Kowalski, Limber & Agatston, 2012).

The EU Kids Online survey was conducted with young people aged 9 to 16 years old in 25 European countries in order to assess the types of experiences young people have online and the nature of the risks they encounter. In the Irish findings 89% of participants reported using the internet at least weekly, most commonly through a shared PC or laptop at home, but increasingly through mobile phones and games consoles (O'Neill, Grehan & Olafsson, 2011). In this survey, 23% of participants reported having been bullied in the past year; however just 4% of these were bullied online (EU average for cyberbullying was 6%) although this increases to 9% of teenagers online and 10% of teenagers through mobile phones. The most common means of cyberbullying reported by participants was through social networking sites, although the particular sites where bullying is most likely to occur were not asked for. As this is the first nationwide survey of its kind, it is not possible to estimate whether or not cyberbullying has increased or decreased over time.

A small scale study based on participants from two rural schools in Ireland found much higher prevalence rates of cyberbullying compared to the EU Kids Online survey (Cotter & McGilloway, 2011). This study found rates of traditional bullying of 21% in their sample, with 17% of the sample reporting having been cyberbullied at some time. The authors state that due to the low incidence of frequent cyberbullying among their

sample, they collapsed all positive responses (including those who reported single incidents of cyberbullying at any point in the past) which is likely to have inflated prevalence rates in this sample. Unfortunately the two papers outlined here were the only Irish based empirical studies to be found for the current review and further or more in-depth analysis of the situation in Ireland as regards cyberbullying cannot be made until a larger body of research is made available.

3.3 Who is Involved in Cyberbullying?

Much of the current literature has found that there is considerable overlap between involvement in traditional bullying and cyber bullying (Brighi, Guarini, Melotti, Galli & Genta, 2012; Dempsey, Sulkowski, Dempsey & Storch, 2011; Erdur-Baker, 2010; Hindaju & Patchin, 2012; Twyman, Saylor, Taylor & Comeaux, 2010). This research has found a number of correlations between traditional and cyber bullying involvement where; those who are traditional bullies or victims are also most likely to be cyber bullies or victims; those who are victimised by traditional means of bullying may be at increased risk of bullying others online and; those who bully others by traditional means may be at higher risk of being targeted online.

Children with autism spectrum disorders (ASD) have been found to report high levels of both traditional and cyber bullying involvement and may be at greater risk of being cyber-bullies (Kowalski & Fedina, 2011). Research within the field of cyberbullying has not focused on children or young people with special needs or other potential risk groups who are known to be at increased risk of traditional bullying to date (e.g. LGBT youth; Kowalski, Limber & Agatston, 2012), and there are no estimates as to how prevalent cyberbullying is among these groups of youth. Nonetheless, it is assumed within the literature that similar groups of young people who show the highest risk of being bullied via traditional means are most likely to also show higher risks of being bullied online.

The following sections will outline what is known about the different groups of young people involved in cyberbullying; those who are victims, those who bully others, those who are both bullies and victims and those who witness online bullying commonly referred to as bystanders within the literature.

Who is at Risk of Being a Cyber Victim?

One of the most consistent predictors of being a cyber victim is being a victim of traditional bullying (Brighi et al., 2010; Kowalski, Morgan & Limber, 2012; Monks, Robinson & Worlidge, 2012; Raskauskas & Stoltz, 2007; Rivers & Noret, 2010; Twyman, Saylor, Taylor & Comeaux, 2010). In particular those who have been victims of relational bullying (which is defined as bullying that involves exclusion from peer groups and spreading rumours about another in an attempt to undermine a victims social relationships) are highly likely to be victimised through cyberbullying also (Erentaite, Bergman & Zukauskeine, 2012).

However, those who are traditional bullies may also be at an elevated risk of becoming cyber victims. Jose et al. (Jose, Kljakovic, Scheib & Notter, 2011) reported on a longitudinal study with 1,700 participants measuring the development of bullying behaviours in young people aged between 11 and 16 years in New Zealand. Their study found that both traditional and cyber victimisation were relatively stable over time meaning that the young people in their study who were either traditional or cyber victims at Time 1 were likely to still be victims one year later. Being a traditional bully at Time 1 was likewise associated with a higher risk of being a cyber bully a year later but was also associated with a greater risk of being a cyber victim at follow up.

Children and young people experiencing either internalising (i.e. emotional) or externalising (i.e. behavioural) difficulties are thought to be at increased risk of being victimised due the ways that these difficulties can affect peer relationships (e.g. Arsenault, Bowes & Shakoor, 2010; Dempsey, Sukowlski, Nichols & Storch, 2009). These children and young people may lack some of the necessary social skills to make friends and to be accepted by their peer group. More aggressive and disruptive children (especially more aggressive girls) are also at elevated risk of being victimised due to their likely rejection by peers (Arsenault et al., 2010), although this appears to be a more prominent risk factor for younger (between age 3 and 6 years) rather than older children.

There is, however, conflicting research evidence as to whether these problems are predictive of victimisation from peers or if they occur as a *result* of previous victimisation as many of these studies are cross sectional rather than longitudinal designs (Cassidy, Faucher & Jackson, 2013). Nonetheless, rankings of unpopularity among peers has been found to be positively related to cyber victimisation, where

victims may also be seen as weak or in some way deserving of their victimisation (Guerra, Williams & Sadek, 2011; Rivers & Noret, 2010). In one longitudinal study with primary school children, Wolke, Woods and Samara (2009) found that children who were rated negatively by their peers at 6 years old and had reported emotional problems (as measured through the Strengths and Difficulties Questionnaire; SDQ) were most at risk of becoming victims of relational bullying by age 9, compared to children who had positive peer ratings and showed SDQ scores in the normal range. As relational bullying is often thought to be similar to cyberbullying in that it involves the exclusion and ostracising of victims, it is possible to see a potential link between early peer relationship problems that follows a trajectory through relational victimisation and on to cyber victimisation during early adolescence.

In addition to individual and social factors, correlations between spending more time online and more time that is unsupervised by parents, and being at higher risk of cyberbullying have been reported (Navarro & Jasinski, 2012; Ybarra & Mitchell, 2004). Also, those who disclose more personal information online can be at a higher risk of becoming cyber victims (Sengupta & Chaudhuri, 2011). Although it has not been investigated empirically to date, when taken together, the available research on risk factors of becoming a cyber victim would suggest that those who have early peer relationship problems (which may be due to emotional or behavioural difficulties) and who become victims of relational bullying at an early age, when combined with high rates of risky internet use that is not supervised by parents are most likely to become victims of cyberbullying when compared to their peer counterparts.

Who is at Risk of Being a Cyber Bully?

In a similar finding to the links between traditional and cyber victims, studies have found that young people who bully others face to face are more likely to also bully others online (Erdur-Baker, 2010; Hemphill et al., 2012; Monks, Robinson & Worlidge, 2012; Sticca, Ruggieri, Alsaker & Perren, 2013) and this may be more pronounced for those who engage in relational bullying of others compared to physically threatening bullies (e.g. Dempsey, Sulkowski, Dempsey & Storch, 2011).

Some studies have investigated the personality characteristics of bullies and cyberbullies with particular focus on areas such as moral reasoning/disengagement (Gini, Pozzoli & Hauser, 2011; Renati, Berrone & Zanetti, 2012), anti-social behaviour

problems (Houghton, Nathan & Taylor, 2012), attitudes towards cyberbullying (Lazarus, Barkoukis, Ourda & Tsorbatzoudis, 2013), anti-social beliefs (Marini, Dane, Bosacki & YLC-CURA, 2006; Williams & Guerra, 2007) and levels of remorse among cyber bullies (Perren & Gutzwiller-Helfenfinger, 2012).

Gini et al. (2011) found that individuals in their study who reported being bullies had a well developed sense of the harm that they caused to their victims, but showed higher levels of moral disengagement (i.e. a means of justifying behaviour that causes others harm or is considered wrong by most people) compared to those who didn't engage in bullying. Similarly, Lazuras et al. (2013) found that those with pro-bullying attitudes also had lower levels of empathy for victims and higher levels of moral disengagement about their bullying behaviour. In a further study young people who were found to have higher levels of anti-social beliefs (where they endorse anti-social behaviours and believe they are justified) where found to be more at risk of being bullies compared to young people who did not hold anti-social beliefs (Marini et al., 2006).

In contrast, Perren and Gutzwiller-Helfenfinger (2012) found that traditional bullies in their study had higher levels of moral disengagement compared to cyberbullies but that both groups displayed little remorse for their actions. Disentangling the effects of emotional processing (such as moral disengagement) from the particular features of online bullying (where bullies can't see the immediate consequences of their actions on victims) may need more sophisticated measurements than those available at the moment, as they rely on an assumption that there are particular similarities between traditional and cyber bullies. Understanding the reasons why young people cyber bully others may be better investigated through more qualitative research in the first instance so that researchers can be better equipped to quantitatively measure the motivations and characteristics of those who engage in cyberbullying.

Houghton et al. (2012) used a qualitative study to investigate whether young people see bullying as a means of enhancing a particular (anti-authority, or non-conforming) reputation among their peers. They interviewed 28 young people aged between 10 and 13 years old who had been suspended from school for bullying in Australia. Their analysis revealed that for this group bullying was a deliberate choice used to attain a reputation of nonconformity and was usually initiated through physical

(and therefore largely public) means. The participants in this study reported that they used cyberbullying as a means of inducing fear and anxiety in their targets, and for boys this was often used in conjunction with attacks on a victim's house as well. It should be noted that this sample of participants may not be representative of all school or cyber bullies as they were chosen for the study due to the persistent (at least one year) and repetitive nature of their bullying and all had been excluded or suspended from school for their actions. Nonetheless, these findings give some insight into the potential motivations behind cyberbullying for those who also engage in traditional and physical types of bullying.

Young people's motives for cyberbullying were explored in a further qualitative study by Varjas and colleagues (Varjas, Talley, Meyers, Parris & Curtis, 2010) with 20 participants aged 15 to 19 years old, who had been engaged in cyberbullying in the past year. The authors found that the motives reported by participants could be classed as either internal – revenge, boredom, jealousy, redirecting feelings – or external – non-confrontational, no perceived consequences. Many of these participants used cyberbullying to target those who had previously bullied them at school. This is in line with other research that has found a strong correlation between being the victim of traditional bullying and bullying others online. For example, Konig, Gollwitzer and Steffgen (2010) found that 14% of participants in their study who admitted cyberbullying chose individuals who had previously bullied them, and the authors argued that prior victims may choose cyberbullying as a means of regaining control of their experiences.

Predicting those most at risk of becoming a cyber bully is not straight forward as the variety of approaches and findings in the literature shows. Some young people appear to see cyberbullying as a means of getting revenge on those who have previously bullied them and that as a covert and possibly anonymous way to target a prior bully it may be seen as safer than confronting a bully face to face. For others, cyberbullying seems to be an extension of traditional bullying behaviour, either used as a way to induce further fear in a victim or as part of a larger repertoire of general anti-social and non empathic behaviour towards others. Researchers have noted that there are possibly two distinct groups of young people who engage in cyber bullying, those who only bully others and those who have experience of being both bullies and victims, and

that this second group may show particular risk factors for involvement in cyberbullying.

Who is at Risk of Being a Bully-Victim?

As previously stated, much of the research literature has found an overlap between traditional bullying and cyberbullying and between traditional victimisation and cyber victimisation. There is an additional group identified within the literature that has been termed bully/victims. These individuals, usually the smallest group compared to bullies or victims only, may be bullies in one context and victims in the other or can be both bullies and victims online (Kowalski, Limber & Agatston, 2012; Yang & Salmivalli, 2013). As mentioned in the preceding sections involvement in traditional bullying is seen as one of the main risk factors for being cyberbullied. In some cases those who are bullies in the traditional sense may find themselves being bullied online by those they have previously victimised (Konig et al., 2010; Varjas et al., 2010) Research has also reported that those who bully others online are at a heightened risk of becoming cyber victims themselves compared to those who are not involved in cyberbullying (Slonje, Smith & Frisen, 2013).

Young people who are classified as bully-victims are likely to have poorer peer relationships than other young people (Jose et al., 2011; Rodkin & Berger, 2008; Smith, Polenik, Nakasita & Jones, 2012). They have also been found to have similar negative social relationships to victims of bullying, and similar levels of aggression and conduct problems to bullies (Yang & Salmivalli, 2013). As a risk group Yang and Salmivalli (2013) found that bully-victims, while the smallest group of those involved in bullying in their study, were most likely to be victims of all types of bullying including direct, physical, verbal, indirect and, cyberbullying and experienced bullying more frequently than those who were victims only. However, this group may also be most likely to retaliate when they are bullied thus leading to an escalation of the bullying and possible increased severity in attacks (Kowalski, Limber & Agatston, 2012). In summary, bully-victims appear to have both the negative peer relationships most often seen in victims, and the conduct and behavioural difficulties usually associated with bullies, and may be most likely to be involved in longer term bullying/victimisation due to their responses to being victimised.

Who are Bystanders to Cyberbullying?

A further group who can be deemed to be involved in cyberbullying are those who witness the bullying and who may or may not intervene. This group has been termed bystanders and is likely to be the largest proportion of young people in terms of online bullying but may not be relevant in terms of bullying via mobile phones (Livingstone & Haddon, 2009; O'Neill, Grehan & Olafsson, 2011). There are a number of ways that young people can become bystanders, for example they may be with the bully when a picture or message is sent, they may receive forwarded messages or posts, they may visit a social media or other website where these messages/pictures etc. are posted, or they may be with the victim when they are received.

Bystander actions (or inaction) can influence how widespread information intended to bullying another becomes as they may be sent or forwarded messages or pictures or have access to online posts. Most who are exposed to bullying incidents online do nothing further about it, some do use it to further bully the victim or share it with more people (which raises the issue of repetition in cyberbullying), but some (approx. 13% in one study) inform the victim in order to help them (Slonje, Smith & Frisen, 2013). The majority of young people who witness bullying report that they feel upset or saddened by it, yet only a small proportion report intervening to support or help the victim (Kowalski, Limber & Agatston, 2012).

There are a number of reasons for this inaction on the part of bystanders. Firstly, some bystanders may blame the victim for not standing up for themselves or may view them as weak or deserving of being victimised, and they may be generally disliked by their peers (Hopkins, Taylor, Bowen & Wood, 2013; Wolke, Woods & Samara, 2009). Secondly, in some peer nomination studies, bullies are ranked as being among the most popular children within classrooms and have higher levels of social dominance and bystanders may not feel confident enough to challenge them (Oltof, Goossens, Vermande, Aleva & van der Meulen, 2011; Reijntjes, et al., 2013; Rodkin & Berger, 2008). Thirdly, for some individuals incidents of cyberbullying may not be perceived as being of a serious nature and bystanders may feel that there is no need for them to intervene as it has not caused any harm to the target (Mishna, Cook, Gadalla, Daciuk & Solomon, 2010). Finally, for some bystanders they may be fearful of making themselves targets of a bully, particularly if that bully is perceived to be popular among

peers and bystanders believe they will not have the support of the larger peer group (Kowalski, Limber & Agatston, 2012).

Gender Differences

There are inconsistent findings as to the gender differences of groups involved in cyberbullying as either bullies or victims (Tokunaga, 2010). Some studies have found no differences in the proportion of girls and boys involved in cyberbullying (Bauman, Toomey & Walker, 2013) and others find that there are differential patterns of cyber bullying and victimisation between girls and boys (Campbell, Slee, Spears, Butler & Kift, 2012; Erdur-Baker, 2010). In these studies some report that boys are at greater risk of being both victims and perpetrators of cyberbullying (e.g. Calvete, Orue, Estevez, Villardon & Padilla, 2010; Erdur-Baker, 2010), while others find that girls are at greater risk of involvement (Brighi et al., 2012; Campbell et al., 2012; Elledge, et al., 2013; Rivers & Noret, 2010). However, these studies are also likely to suffer from inconsistent questioning of the types of experiences asked about when referring to cyberbullying where some will only ask about more aggressive and overt types of cyberbullying (e.g. posting abusive messages on someone's social media page) and not about more indirect forms of cyberbullying (e.g. actively excluding someone from online groups) and gender differences may be exaggerated in these cases.

Taking all of the available research together it appears that there are little (if any) differences in levels of involvement in cyberbullying either as bullies or as victims by gender. However, some studies do find that there may be differential effects or impacts of bullying others or being a victim of cyberbullying (Turner, Exum, Brame & Holt, 2013), although boys may be more likely to be categorised as bully-victims (Yang & Salmivalli, 2013). These different patterns of impacts will be discussed in detail in the following chapter.

Age Differences

As noted by Tokunaga (2010) there is also inconsistency in the literature as to age differences in cyberbullying involvement largely due to the range of age groups that are surveyed across studies. However, from this and other reviews (e.g. Cassidy et al., 2013; Slonje, Smith & Frisen, 2013) cyberbullying appears to peak during early to mid adolescence (approximately 13 to 15 years) in terms of prevalence and frequency with much lower incidence for younger children and older adolescents and adults. In the

Ireland report of the EU Kids Online survey, 15 to 16 year olds experienced the highest levels of cyberbullying involvement (O'Neill, Gehran & Olafsson, 2011). Increased risk of involvement in cyberbullying has been linked to increased exposure or use of the internet (Navarro & Jasinski, 2012), adolescents tend to spend the most time online (Livingstone & Haddon, 2009) and are more likely to be unsupervised or monitored compared to younger children (Sengupta & Chaudhuri, 2011) so this may confound some of the findings regarding age differences in these studies.

However, with growing numbers of younger children increasingly having access to mobile phones and social networking sites (Livingstone & Haddon, 2009) it remains to be seen whether current trends in age differences for cyberbullying involvement will show a similar picture in the future. Also, it should be noted that cyberbullying does not necessarily stop post adolescence. A limited number of studies have investigated prevalence among college students in the US and Canada and found that those who were cyberbullied at school were three times as likely to be cyberbullied at university compared to those who had not been cyberbullied previously (Beran, Rinaldi, Bickham & Rich, 2012).

4 The Impacts of Cyberbullying

Research investigating the effects of cyberbullying on both victims and bullies is still in its infancy and a clear picture of impacts is yet to fully emerge (Kowalski, Limber & Agatston, 2012). What the available research has shown to date is that the impacts of cyberbullying tend to mirror those that have been found to be related to traditional bullying. However, interpretations of these studies are also complex given the high level of overlap between experiences of traditional and cyber bullying for a number of young people that has been found in the literature. Overall, this body of research examining the impacts of cyberbullying on young people should be read within the context of what is known about the impacts of traditional bullying while also keeping in mind some of the unique features of cyberbullying (e.g. anonymity, continuous access, inability to see a victims reaction, disinhibition) which may serve to exacerbate the effects of bullying or make the experience more intensive for both bullies and victims.

4.1 Impacts on Cyber Victims

While media attention has focused on a number of youth suicides in Ireland (and in other countries) that have been attributed to cyberbullying, in their review of current research Cassidy et al. state that "...suicide is neither the most likely, nor the most prevalent type of impact on victims" (2013; p. 7). Nonetheless, there are a number of reported negative impacts of being cyberbullied that have been shown across studies and these are often similar to those found for victims of traditional bullying including depression, low self-esteem, anxiety, self harm, suicidal ideation and psychosomatic problems such as headache and stomach ache (Bonanno & Hymel, 2013; Topcu & Erdur-Baker, 2012; Turner, Exum, Brame & Holt, 2013; Volink, Bolman, Dehue & Jacobs, 2013).

Findings relating to these impacts are not consistent across cyberbullying experiences, or across research studies. The effects that cyberbullying can have on those targeted may be influenced by a number of factors, such as the means used to cyberbully, and the frequency, length or severity of attacks (Tokunaga, 2010). For example, Cotter and McGilloway (2011) reported that in their sample of 122 Irish young people the use of video or pictures to cyberbully others was considered more harmful

and upsetting than any other form of cyberbullying. There are also differences between individuals in how they are affected by being cyberbullied. A cross national study (Italy, Spain and the UK) of 5,862 young people found that cyber victims could be clustered into one of three groups; not affected, moderately affected and, strongly affected (Ortega et all, 2012). Unfortunately why young people might report different intensities of effects of being victimised were not investigated in this study and it fails to identify those who are likely to be most at risk of negative impacts. Nonetheless, there appears to be a minority of children who are chronic victims in that they are bullied throughout childhood and into adolescence and in some cases adulthood as well, and are bullied through a variety of means (Arsenault, Bowes & Shakoor, 2010; Beran, Rinaldi, Bickham & Rich, 2012). The impacts of victimisation on these individuals are likely to be more negative and more long-lasting compared to those victimised for a brief period of time.

When Traditional and Cyber Victimisation Overlap

Many studies have observed that the majority of cyber victims are also bullied by traditional means (e.g. Olweus, 2012; 2013) so it can be difficult to separate the impacts of each type of bullying. This overlap in experiences of victimisation has led to debate within the literature with some researchers (e.g. Beckman, Hagquist & Hellstrom, 2012; Dooley, Gradinger, Strohmeier, Cross & Spiel, 2010; Olweus, 2012) arguing that effects such as depression and suicidal ideation are due to the cumulative effects of traditional and cyber victimisation, and that any type of bullying has the same impact on young people's mental health while other researchers claim an independent effect of cyber victimisation that is not explained by involvement in traditional bullying (e.g. Bonanno & Hymel, 2013; Dempsey, Sulkowski, Nichols & Stolch, 2009; Perren, Dooley, Shaw & Cross, 2010). Few studies have measured the long term impacts of victimisation, but one UK study of 7,461 adults found that those who reported having been bullied in childhood were twice as likely to have attempted suicide in adulthood compared to those who had not been bullied (Meltzer, Vostanis, Ford, Bebbington & Dennis, 2011). However, this link was also mediated by reported levels of depression and having experienced abuse or neglect at home, so the long term impacts of bullying alone are not easy to distinguish.

The extent of negative impacts of cyber victimisation appears to depend on how each incident is perceived by individual young people in comparison to traditional

victimisation. For some, being targeted by cyberbullies is seen as less negative than traditional victimisation (Campbell, Slee, Spears, Butler & Kift, 2012; Sevcikova, Smahel & Otavova, 2012), while other studies show that young people report cyberbullying is more detrimental than traditional bullying (Sticca & Perren, 2012), and yet further studies find that they are rated about the same in terms of negative impact (Sakellariou, Carroll & Houghton, 2012). Studies have also found different types of negative effects for those who are victimised through traditional and cyber bullying methods. For example, Campbell et al. (2012), in a study with over 3,000 primary school children, report that traditional victims had higher rates of depression, anxiety and stress than any other group in the study while cyber victims had higher levels of social and emotional difficulties compared to other groups in the study.

Cyber victimisation and Mental Health Impacts

In a study investigating the differences between the perceptions of harm caused by cyberbullying and actual reports of depression and emotional difficulties, Campbell and colleagues (Campbell, Slee, Spears, Butler & Kift, 2012) found that there was a discrepancy in participant's reports of the two. Specifically, those who had been bullied by traditional means reported that they believed their victimisation caused more harm and negative impacts, while statistical analyses revealed that cyber victims showed higher levels of depression and anxiety and greater problems with social relationships. Why this might be the case is not fully understood, but it suggests that there may be at least some proportion of young people who are being cyberbullied who may not see their experiences as being of a serious enough nature to look for help in dealing with them.

The strongest correlations between cyber victimisation and negative mental health impacts appear to be in studies that use the Strengths and Difficulties Questionnaire (SDQ), which measures social, emotional and behavioural functioning in children and young people. While many studies report that those who are cyberbullied are more likely to show significant difficulties in these areas (e.g. Campbell et al., 2012; Dooley, Gradinger, Strohmeier, Cross & Spiel, 2010; Healy & Lynch, 2013; Wolke, Woods & Samara, 2009), they tend not to report on differences between the five subscales of the measure so it is unclear if cyber victims show more negative impacts in particular areas (e.g. peer relationships) than others (e.g. conduct problems). Given that there is

often a correlation between being victimised by any means and poor social relationships, including social anxiety, these studies may be reporting on characteristics of those who most at risk of being victims rather than impacts of having experienced victimisation. However, one study found that when young people report having more friends, the SDQ was unable to distinguish between bullies, victims or bully-victims and those not involved in cyberbullying (Skrzypiec, Slee, Askell-Williams & Lawson, 2012) indicating that this measure alone is not sufficient to determine the impacts of being victimised.

The impact of cyber victimisation on a young person's mental health is likely to be mediated by other factors that have contributing effects. For example, some studies have found that any type of bullying increases the risk of depression, but did not increase risk of suicidal ideation (e.g. Turner, Exum, Brame & Holt, 2013). Other studies have found that the link between victimisation and self-harm and suicidal ideation is mediated by existing levels of depression, so that those who already display poorer mental health and are cyberbullied are at most risk of self-harm and suicide (Hay & Meldrum, 2010; Hinduja & Patchin, 2010; Undheim, 2013). In addition, victimisation may impact on self-esteem in young people and this in turn is likely to be linked to depressive symptoms in those who are victimised (Guerra, Williams & Sadek, 2011).

Further studies have shown that when cyber victimisation was experienced in conjunction with other risk factors, such as family abuse or depressive symptoms, the risk of suicidal ideation is increased and the most significant risk factor was previous self-harm (Borowsky, Taliaferro & McMorris, 2013). It seems likely that those who are already vulnerable to depression, and are experiencing other stressful life events, are at an elevated risk of suicidal ideation when they experience victimisation through this pathway, but that those who don't show depressive symptoms, or have fewer additional difficulties, are not at any increased risk of self-harm or suicidal ideation possibly due to better coping strategies or social support. Such interactions between risk factors for self-harm and suicidal ideation suggest that cyberbullying alone is unlikely to lead to suicidal ideation, but that it may affect depressive symptoms in young people and exacerbate existing vulnerabilities thus increasing the risk of suicide among a particular group of young people who are bullied online (Hinduja & Patchin, 2010).

Other Impacts on Cyber Victims

Victims of cyberbullying report a number of academic difficulties as a consequence of preoccupation with their cyberbullying experiences. For many being cyberbullied leads them to feel that school is unsafe (Skryzpiec, Slee, Murray-Harvey & Pereira, 2011), which can result in reluctance to attend school and higher levels of truancy. Poorer concentration due to the anxiety caused by being cyberbullied can affect school grades and may lead to disciplinary actions from teachers. There may be different effects on academic achievements depending on whether the individual knows who they are being cyberbullied by or not, and whether they are also being bullied at school by the same individual(s), although in some studies participants report that not knowing their online bully causes greater distress than knowing who they are being targeted by (Smith, Mahdavi, Carvalho, Fisher, Russell & Tippett, 2008). Also, cyber victims are more likely to report negative perceptions of school climate (i.e. they feel they have poor relationships with teachers or, that they are not protected from bullies) which may make them reluctant to report being bullied to school authorities (Brighi, Guarani, Melotti, Galli & Genta, 2012; Guerra, Williams & Sadek, 2011).

Likewise, there are reported differences in emotional reactions to being cyberbullied depending on whether the attacker is known or not (Sevcikova, Smahel & Otavova, 2012). In this study fear and uncertainty was most likely to be experienced when the attacker was unknown as young people report they were unsure whether or not to take threats seriously, while knowing who is targeting them induced humiliation within the peer group and a range of negative emotional effects. Similarly, a further study including those from 10 to 50 years old, found that the highest levels of distress and largest daily impact of cyberbullying were reported by those who knew their online bully compared to those who were bullied anonymously (Staude-Muller, Hanson & Voss, 2012).

4.2 Impacts on Cyber Bullies

Compared to cyber victims much less is known about the overall impacts of cyberbullying on the bullies who engage in it (Cassidy et al., 2013). Some studies have found that cyberbullies are similar in behavioural characteristics to traditional bullies and can display conduct and emotional problems such as aggressiveness, hyperactivity and low self control (Campbell, Slee, Spears, Butler & Kift, 2013; Perren, Dooley, Shaw &

Cross, 2010; Vazsonyi, Machackova, Sevcikova, Smahel & Cerna, 2012). Yet other studies have found that cyberbullies are more similar to those not involved in cyberbullying at all and may represent the 'typical' young person and not display any of the expected behavioural or emotional problems of traditional bullies (Cassidy et al., 2013). Still other studies have found that cyberbullies display internalising problems similar to those found for cyber victims such as depression and suicidal ideation (Beckman, Hagquist & Hellstrom, 2012; Bonanno & Hymel, 2013). Any study investigating the impacts of cyberbullying on those who perpetrate it is likely to be confounded by the inclusion of individuals who are also victims of traditional or cyber bullying thereby making it difficult to separate the effects of bullying experiences between different groups.

Perceptions of Harm

In general, studies tend to find that cyberbullies see their own actions as less harmful than those of traditional bullies, and may believe that their actions have no impact on their targets (Campbell, Slee, Spears, Butler & Kift, 2013; Slonje, Smith & Frisen, 2012). This could be related to the argument that cyberbullies have poor empathic responses due to not being able to see the reaction of their victims in the immediate term compared to traditional bullies (Topcu & Erdur-Baker, 2012). There may be little opportunity for a cyber aggressor to feel any remorse or guilt about their actions when they receive little or no feedback as to the impacts of their behaviour towards another.

On the other hand, these findings may be a feature of the types of measures used to assess the effects of cyberbullying on young people that do not use the same terminology as young people themselves. For example, Law and colleagues (Law, Shapka, Domene & Gagne, 2012) used a mixed methods study containing a quantitative survey and individual interviews to investigate how young people perceived cyberbullies motivations for their actions. They found that most young people who were involved in cyberbullying in any form perceived their own actions as reactive (i.e. acting to defend themselves after being attacked by someone else) and perceived others' actions as more proactive (i.e. as instigating an aggressive attack). This study also found that young people were more likely to interpret cyberbullying by the means used, for example insulting another, rather than the role of the individual – they did not discriminate between aggressors and targets. This study raises questions as to whether

or not cyberbullying is being measured in the most appropriate ways among young people and whether the information given to educators, parents and policy makers is useful in helping them to devise adequate strategies to address it.

Cyberbullying and Mental Health Impacts

In some studies cyberbullies have been found to report similar levels of psychosomatic and mental health difficulties to cyber victims (e.g. Beckman, Hagquist & Hellstrom, 2012). Also, as with those who have been cyber victimised, cyberbullies have shown similar difficulties in emotional and behavioural problems as measured by the SDQ (Campbell et al., 2013). In contrast, other studies have found that cyberbullies feel little or no remorse for their actions and subsequently would not be seen to experience any of the more common emotional impacts of cyberbullying others (Slonje, Smith & Frisen, 2012).

Undheim (2013) measured mental health impacts of bullying on Norwegian adolescents over a one year period at ages 14 and 15 years and found that bullies showed similar levels of depressive symptoms and suicidal ideation to victims at Time 1. However, bullies appeared to be less at risk of continued depressive symptoms with only victims having significantly higher levels of depressive symptoms at Time 2. This finding may tie in with other studies that show bullies tend to have high ratings of popularity among their peers (e.g. Gradinger, Strohmeier, Schiller, Stefanek & Spiel, 2012; Guerra, Williams & Sadek, 2011) which could act as a buffer against negative mental health impacts of involvement in bullying and may serve to socially reinforce bullying behaviour among some young people.

Mental health impacts of cyberbullying are likely to be influenced by other, co-existing problems for some bullies that may add to the risk effects of bullying involvement. Litwiller & Brausch (2013) found in their sample of 4,693 adolescents that the link between cyberbullying behaviour and suicidal ideation was indirectly influenced by both substance use and overt violence. This suggests that suicidal ideation is not directly affected by a single factor such as involvement in cyberbullying but that it may be one indicator among many that can increase this risk when combined with other known risk factors.

Behavioural Impacts on Cyber Bullies

Bullying is seen to be a subtype of aggressive behaviour in that it involves the attack, humiliation or exclusion of (less powerful) others (Salmivalli, 2009). Cyberbullies tend to display a number of conduct and behavioural problems associated with aggression in young people including, delinquent behaviour, substance and alcohol use, poor school performance, less prosocial peer group behaviour and rule-breaking behaviour (Cassidy, Faucher & Jackson, 2013). Those who already display conduct problems and have fewer prosocial behaviours may be more likely to respond to others online in more aggressive and bully-like ways compared to those who use less aggression in their communications with others online (Dooley, Shaw & Cross, 2012). Online aggression in turn is related to peer rejection, most commonly seen in young people who display behavioural problems such as hyperactivity, where individuals who are rejected by their peers are most likely to use aggression online (Wright & Li, 2013). Disentangling the cause and effect relationships between conduct or behavioural problems and cyberbullying is clearly not an easy task. At best researchers can show a correlation between online and offline behaviour in cyberbullies, but longitudinal research is needed to show whether aggression and/or violent behaviour is a cause or a consequence of online bullying.

Long term behavioural problems in terms of anti-social and violent behaviour were found to be a consequence of involvement in traditional bullying in a meta-analysis of 28 longitudinal studies of school age to young adult samples (Ttofi, Farrington & Losel, 2012). Similarly, Wolke et al. (Wolke, Copeland, Angold & Costello, 2013) conducted a longitudinal study with over 1,400 participants in the US and measured impacts of involvement in bullying up to age 26. This study found correlations between bullying in school and later risky and illegal behaviour at follow up and an increased risk of substance abuse compared to other groups in the study. A further study found that bullying in childhood predicted suicide attempts in young people up to age 25 (Klomek, Sourander & Gould, 2010). Similar longitudinal or meta-analytic studies have not be conducted to date for those involved in cyberbullying and it is not clear if cyberbullies would show similar long-term outcomes.

Bully- victims are usually the least prevalent group of young people involved in cyberbullying but are generally found to show the most severe emotional, psychological, psychosomatic, and behavioural problems (Beckman, Hagquist & Hellstrom, 2012; Borowsky, Taliaferro & McMorris, 2013; Connors-Burrows, Johnson, Whiteside-Mansell, McKelvey & Gargus, 2009). Due to their dual role, bully-victims have been found to display many of the negative impacts of cyberbullying involvement that have been shown in both bullies and victims simultaneously. Bully-victims may also have the poorest social relationships of all those involved in cyberbullying and be least popular among peers (Rodkin & Berger, 2008), and have also been found to display the highest level of psychosomatic problems compared to other groups of young people (Beckman, Hagquist Hellstrom, 2012). These impacts may stem from the likelihood that young people who are both bullies and victims may have high levels of impulsivity and may be more inclined to react to being bullied with aggressive responses compared to those who are victims only and this in turn may exacerbate the bullying cycle leading to a continuation of bullying and victimisation over time.

Bully-Victims and Mental Health Impacts

Not all studies include a separate analysis for those termed bully-victims and many cluster involvement in cyberbullying into either bully groups or victim groups, therefore there is currently much less information about the potential impacts of cyberbullying on bully-victims than there is on others involved. What little is known about bully-victims suggests that they may be the most vulnerable group of young people involved in bullying of any sort in terms of their mental health. Studies have found that bully-victims are at the highest risk of suicidal ideation and suicidal behaviours when compared to either bullies or victims only (Borowsky, Taliaferro & McMorris, 2013; Hepburn, Azrael, Molnar & Miller, 2012; Skyrzpiec, Slee, Askell-Williams & Lawson, 2012), why this might be the case has not been investigated fully to date but it is likely to be due to some combination of emotional, behavioural and social relationship difficulties that may be more problematic for this group.

Those who are reported to be bully-victims also tend to show the highest levels of emotional problems (Connors-Burrows et al. 2009) and suffer higher levels of peer rejection compared to others in the same age group (Rodkin & Berger, 2008). A US

study involving over 130,000 participants found that bully-victims were at the highest risk of suicidal ideation compared to those who were either bullies only or victims only (Borowsky, Taliaferro & McMorris, 2013). However, those who report having more friends appear to suffer less from emotional or behavioural problems even when identified as bully-victims (Skyrzpiec et al., 2012). The proportion of bully-victims that are likely to have friends to act as social support is probably not very large as studies find that bully-victims tend to be most rejected by the peer group compared to others involved in cyberbullying, and this in turn is related to the subsequent use of aggression online in bully-victims (Wright & Li, 2013).

Bully-Victims and Behavioural Problems

Bully-victims may also be differentiated by the ways that they react to being victimised. For example, those most likely to respond aggressively to being targeted by cyberbullies are young people who already display conduct and anti-social behavioural problems compared to young people who respond in other ways (Dooley, Shaw & Cross, 2012; Wright & Li, 2013). A longitudinal study that followed participants at a number of time points between the ages of 9 and 26 years found that bully-victims, identified in childhood or adolescence, were most at risk for all measured negative outcomes including; poor educational achievement, poor physical health, involvement in risky or illegal behaviours, and social problems, when compared to all other groups (Wolke, Copeland, Angold & Costello, 2013). This indicates that those who are involved in bullying/cyberbullying at a younger age as both bullies and victims are likely to experience a range of negative behavioural difficulties that may persist into adulthood.

4.4 Impacts on Bystanders

Bystanders are those who witness incidents of cyberbullying without becoming directly involved. Many bystanders report feeling upset, or distressed at having witnessed an incidence of cyberbullying whether they have intervened to support the victim or not (Kowalski, Limber & Agatston, 2012). Few studies have investigated the impact of witnessing cyberbullying in young people but from research on traditional bullying findings suggest that it may have a negative impact on bystander's mental health (Rivers, Poteat, Noret & Ashhurst, 2009) and that bystander's are distressed by witnessing the bullying of others (Rivers & Noret, 2010).

Some bystanders report that they are actively targeted by cyberbullies to become involved in the harassment but only a small percentage (approximately 6%) of these use material they are sent to continue bullying a victim, however, over 70% of young people report that they do nothing (Slonje, Smith & Frisen, 2012). What effect this action or inaction has on bystanders in terms of distress or guilt was not measured in this study so whether they are impacted by witnessing cyberbullying cannot be assessed from this data. For many young people they may find themselves sometimes being bystanders and sometimes being bullies or victims of cyberbullying, and it seems that those who are also targeted as cyber victims feel most distress at being bystanders (Rivers & Noret, 2010). Those who witness cyberbullying and also have experience of being cyberbullied may be most likely to empathise with other victims but may also be unable to determine ways to intervene and are at risk of greater distress than those who have less personal experience to draw on.

4.5 Gender Differences in Impacts

Some studies have found gender differences in the types and severity of impacts that cyberbullying can have on those involved, usually showing that girls are more at risk of experiencing negative psychological problems (such as depression and anxiety) than boys and have reported higher levels of suicidal ideation and more suicide attempts after victimisation than boys (Bauman, Toomey & Walker, 2013; Bonanno & Hymel, 2013; Campbell, Slee, Spears, Butler & Kift, 2012; Klomek, Sourander & Gould, 2010; Turner, Exum, Brame & Holt, 2013). When compared to victims of traditional bullying, Campbell et al. (2012) found that across all types of victimisation (e.g. physical, indirect and cyber) girls showed more negative emotional and psychological impacts than boys in all categories. Girls have also been found to report higher levels of stress when victimised compared to boys (Staude-Muller, Hansen & Voss, 2012).

In contrast other studies find that boys who are victimised online report higher levels of depression and anxiety, and poorer physical health than girls who are cyberbullied (Kowalski & Limber, 2012). Boys may also be more likely to be victimised online or through text messaging than girls (e.g. Beran, Rinaldi, Bickham & Rich, 2012; Turner et al., 2013). One study found that girls are more likely than boys to seek help when they are cyberbullied (Dooley, Gradinger, Strohmeier, Cross & Spiel, 2010) although this was most often from friends rather than adults, but it is possible that boys

who fail to seek social support from anyone will suffer greater detrimental effects of being cyberbullied compared to those who receive help and this may have longer term impacts on mental health than has been measured to date within the literature. Further longitudinal research is necessary to identify the effects of seeking or not seeking support on mental health impacts of being a victim of either traditional or cyber bullying.

There may also be different gender effects dependent on the type of involvement in cyberbullying. For example, some studies have found that girls who bully, but not boys show more behavioural and conduct problems at follow up stages of longitudinal studies (e.g. Boulton, Smith & Cowie, 2010). In contrast other studies have found that boys, but not girls, who cyber bully others are more at risk for suicide attempts (Bauman, Toomey & Walker, 2013). There have also been differences in the types of cyberbullying experienced by girls and boys where girls are more likely to experience name calling and sexual harassment and boys more likely to be threatened online or by mobile phone, although investigation into the differential effects these types of cyberbullying experiences have on either girls or boys is missing from the literature (Mishna, Cook, Gadalla, Daciuk & Solomon, 2010).

Determining gender differences in impacts of cyberbullying is confounded by a lack of consensus as to whether there are gender differences in levels of involvement in cyberbullying as outlined in the previous chapter. Also, few studies measure the same types of impacts for those involved in cyberbullying and this further complicates the issue of gender differences. It may be more useful to look at the range of possible impacts that can occur for those involved in cyberbullying on an individual basis and attempt to address those, rather than look for differential effects by gender, as this is also the approach taken in the majority of intervention programmes.

4.6 Age Differences in Impacts

The majority of research on cyberbullying has tended to focus on adolescents while largely ignoring younger children or adults (Tokunaga, 2010). While internet use tends to be more frequent among adolescents (Livingstone & Haddon, 2009), bullying that begins in primary school has the potential to continue and escalate through secondary school and may have greater impacts on the emotional and behavioural development of those involved from a younger age (Lester, Cross & Shaw, 2012). Normal

developmental differences between age groups can sometimes mean that what is perceived to be bullying by one age group may not be seen in the same way by another (Monks & Smith, 2006). For example, older children and adolescents are more likely to perceive an act as cyberbullying only when there is an intention to harm another, whereas younger children may see any act that causes upset to another as a case of cyberbullying regardless of intent.

From the few studies that compare cyberbullying among older and younger children there are suggestions that primary school children are more likely to be involved in cyberbullying as bully-victims than secondary school children (Yang & Salmivalli, 2013). However, other studies have found no differences in levels of involvement in different bullying groups or levels of empathy across age when comparing primary and secondary school children who bully (Gini, Pozzoli & Hauser, 2011). Still, other studies have reported that primary school children are less involved in cyberbullying or victimisation than secondary school students (Sakellariou, Carroll & Houghton, 2012). None of these studies include comparisons for other factors that may have an influence on reported prevalence levels of cyberbullying in young people such as frequency or amount of internet use, parental supervision or security features or, access to mobile phones. The inconsistencies in the research literature as to the differential impacts that cyberbullying has on different ages, and the scarcity of research that includes comparative age groups means that there is insufficient evidence to determine whether or not age influences the impacts of cyberbullying involvement.

5 Environmental Influences on Cyberbullying

Like traditional bullying, cyberbullying occurs within a social context in which there are external influences from others such as family, peers, the media and school or other authorities. This chapter will look at the research literature that focuses on how the social environment influences young people's involvement in cyberbullying either as bullies or as victims and whether these influences have an effect on how young people deal with their experiences of cyberbullying.

5.1 Influence of Parents and Family

The family plays a central role in children and young people's socialisation and development and can affect behaviour, emotions and social relationship that continue on into adulthood. Poor relationships with parents and a low sense of belonging within the family have been found to be risk factors for cyber victimisation (Brighi, Guarini, Melotti, Galli & Genta, 2012). Additionally, there is a co-occurrence of child maltreatment, physical or sexual abuse, domestic violence, parental mental health problems and, a lack of parental warmth with child mental health problems which in turn play a role in increasing the risk for victimisation from peers (Arsenault et al., 2010; Borowsky, Taliaferro & McMorris, 2013; Connors-Burrows, Johnson, Whiteside-Mansell, McKelvey & Gargus, 2009). Poor relationships within the family may also interact with other risk factors, such as substance abuse and delinquency, to increase the likelihood of bullying others where each factor contributes to the risk of bullying (Ybarra & Mitchell, 2004).

In contrast those who report better family relationships and high levels of family support show lower levels of involvement in cyberbullying as either bullies or victims even when these individuals reported poor peer support (Fanti, Demetriou & Hawa, 2012). In particular reported maternal and sibling warmth and a positive home atmosphere acted to promote resilience in children who had been bullied and was positively related to emotional and behavioural adjustment in these children (Bowes, Maughan, Caspi, Moffit & Arsenault, 2010). Further studies have found that authoritative parenting (which is defined as fair and consistent rule setting, positive interactions between child and parent, and adequate supervision) can act as a buffer to

the negative effects, including self harm and suicide, of being victimised through both traditional and cyber bullying (Hay & Meldrum, 2010).

The type of relationship that a child or young person has with their parent is likely to have both direct and indirect effects on their bullying involvement. Parent-child relationships will directly affect things such as the use of aggression by a child or coping strategies used by those who are victimised, and can influence a child's likelihood of talking to a parent if they are victimised. Indirect effects can be seen through the ways that parent-child relationships influence other protective or risk factors in terms of bullying, such as the child's self-esteem which can make them more confident in forming friendships and in garnering social support when it is required (Rigby, 2012). Families, and in particular parents, therefore have an important role to play in both preventing and intervening in cyberbullying among young people.

5.2 Influence of Interpersonal Relationships

Peer relationships become increasingly important to young people as they move through childhood and adolescence and the quality of these relationships has been shown to have an influence on experiences of cyberbullying. Those with poor peer relationships who report high levels of loneliness have been found to be at greater risk of all types of bullying (direct, indirect and cyber) compared to those who report low levels of peer loneliness (Brighi et al., 2012). There appears to be a correlation between being a victim of bullying and social acceptance from peers where those who are nominated by peers as least liked within a class are most at risk of being victimised (Boulton, Smith & Cowie, 2010).

Peer rejection can influence the extent of impacts of cyberbullying involvement where young people who are not popular among their peers and have few friends may be at higher risk of both becoming a victim and of suffering more severe impacts compared to victims who are not rejected by peers (Wright & Li, 2013). Although based on hypothetical vignettes, Pieschl et al. (Pieschl, Porsch, Kahl & Klockenbusch, 2013) found that secondary school students who rated themselves as unpopular with their peers reported more distress when reading about a bullying incident and this distress was even higher when the bully described in the vignette was presented as being popular with others. This suggests that there are important interacting factors of the peer group that influence the experiences of victims that have yet to be fully explored

within the research literature and may aid in understanding the full extent of the impacts of being bullied on different groups of young people.

As outlined in the previous chapter, bullies (including cyberbullies) are often reported to be popular among their peers, and in a study by Oltof et al. (Oltof, Goossens, Vermande, Aleva & van der Meulen, 2011), popularity among bullies was correlated with a reported desire for social dominance. For some bullies at least, it appears that they receive positive feedback from the peer group for their behaviour and this can lead to them using bullying as a means of maintaining popularity with this peer group (Houghton, Nathan & Taylor, 2012). Also, those who have friends who bully are more likely to be involved as bullies themselves showing further support for the influence of peer norms on engagement in bullying (Hinduja & Patchin, 2013). Some researchers argue that young people who bully others (either face to face or online) find this an effective way to gain popularity among peers (e.g. Houghton et al., 2012; Oltof et al., 2011), this may be one reason why bystander intervention which communicates to bullies that their behaviour is not supported by their peers, is often effective in terminating or reducing bullying in schools (Rivers & Noret, 2010).

5.3 Influence of School Climate and Practice

School climate can be assessed at different levels from the peer group within a classroom, to teacher practices in class, to school authorities and staff and to the wider whole school policy and practice ethos. Each of these levels may influence the extent and nature of cyberbullying among students in different ways. Research investigating school climate and practice that focuses on cyberbullying is in the early stages and effects of school practice on a behaviour that generally tends to occur outside of school grounds may be more difficult to assess than effects on traditional bullying within school. Nonetheless, there is some research evidence to suggest that school atmosphere and attitudes toward cyberbullying can interact with other factors to influence the prevalence and practice of cyberbullying among students.

Elledge et al. (2013) found classroom level factors that affected the frequency of cyberbullying among students, specifically; they found that in classes where there were more negative attitudes towards cyberbullying there were corresponding lower levels of cyberbullying among those students compared to classes that had more pro-bullying attitudes. However, these authors also found that when a teacher is perceived to be

effective at intervening in direct bullying within the classroom levels of both indirect and cyber bullying increased. They suggest that this is due to students acknowledging that direct bullying is unacceptable and likely to be noted and stopped by teachers and they subsequently revert to more hidden types of bullying others in order to avoid detection (Elledge, Williford, Boulton, DePaolis, Little & Salmivalli, 2013).

It is not just teachers that can have an effect on cyberbullying perpetration among students, classroom level attitudes and beliefs about the acceptability of cyberbullying can also have an effect. For example, Lazarus et al. (Lazarus, Barkoukis, Ourda & Tsorbatzoudis, 2013) found that in classrooms where peer norms and attitudes were anti-bullying these classes showed a corresponding low rate of cyberbullying among students. This finding would support theories of bullying behaviour that state peer and social reinforcement leads to a continuation of the bullying and removal of this reinforcement is likely to decrease the behaviour.

Hindaju and Patchin (2012) found a direct relationship between experiences of cyberbullying (either as a bully or a victim) and negative perceptions of school climate when they asked participants about their feelings of safety at school and perceived relationships with teachers. Similar findings have been reported in other studies linking positive perceptions of school to lower incidence of all types of bullying among students (Williams & Guerra, 2007). In addition, students who report higher levels of dissatisfaction with school report that they are less likely to intervene when they witness bullying in school than those who have better perceptions of school climate (Wachs, 2012). One study also found that when parental support was low for victims of bullying, a positive and supportive relationship with a teacher can have the same buffering effect on negative impacts for young people as that reported for parents (Connors-Burrows, Johnson, Whiteside-Mansell, McKelvey & Gargus, 2009). Research on the influence of school environments on cyberbullying suggests that even when the bullying takes place primarily outside of school grounds policies and practices within schools can still play an important role in preventing cyberbullying among students.

5.4 Influence of Industry and the Media
One of the defining features of cyberbullying is the potential permanency of posts, videos, pictures etc online. For the victim knowing that material about them exists online and not being able to remove or delete it can lead to further anxiety and distress

(Slonje, Smith & Frisen, 2013). Little research has investigated the effects of industry practices on the incidence or prevention of cyberbullying. However, most social networking sites offer users the option of deleting friends, blocking others from seeing or posting on a personal page, or reporting offensive messages and these have been made easier to use in recent years. For email accounts and mobile phones it is also possible to block particular senders. YouTube has also introduced a variety of links to resources aimed at helping users to report abusive and offensive videos.

It appears that these technological strategies may also be the most commonly used method of dealing with offensive or abusive messages among young people (Tokunaga, 2010). These sorts of strategies are likely to be most useful for those who encounter acts of cyberbullying only once or infrequently online or via text and may not be effective in helping those who are also bullied at school or by multiple others. It should also be noted that while many industry representatives have engaged with policy makers (both in Ireland and other countries worldwide) all require users to agree to particular terms of service contracts which prohibit the use of hateful or offensive language.

Although no web service provider could be expected to monitor all exchanges that occur on their sites, their actions when informed of offensive or abusive information should clearly and publicly reflect these terms. Also, in many cases these terms and the sanctions that will be used by websites for those found to be threatening, abusing or otherwise cyberbullying others are not stated and these should be made clear for users to give them greater confidence in reporting experienced and witnessed cyberbullying. The EU commission has received pledges from 28 internet and telecommunications chief executives to take action in five areas regarding a safer internet for children. These pledges include; strengthening reporting tools; increasing privacy settings; introducing content classification schemes; increasing parental controls and; the prompt takedown of abusive material.

Olweus (2012; 2013) has consistently argued that the media, and some researchers, are guilty of over- stating both the prevalence and rate of increase of cyberbullying among young people. According to Olweus there are two potential consequences of this type of reporting. Firstly, he argues that it will create undue anxiety and stress among parents, teachers and students and may lead to a feeling of powerlessness in the face of such an overwhelming experience. Secondly, the

increasing focus on cyberbullying may lead to the neglect of the more prevalent incidence of traditional bullying and the diverting of resources away from this problem when it is still a relevant issue in schools. However, Olweus is not arguing for exclusive focus on traditional bullying either, instead he states that both cyber and traditional bullying should be addressed as a broader more integrated issue, rather than in isolation from each other. Olweus, and other researchers, tend to focus on the potential negative influence that the media can have on addressing cyberbullying. It should be remembered however that the media has an important role to play in educating young people about online respect, inclusion, bullying and, mental health and should be encouraged to promote these practices more.

A recent paper by Sabella, Patchin and Hinduja (2013) outlined seven myths of cyberbullying that they claim are perpetrated by the mass media whose purpose, they argue, is to report on the extreme and dramatic. The authors identified these common misconceptions surrounding cyberbullying based on media headlines and their work in training and policy development in the area, some of these have been referred to in previous chapters of the current literature review. The myths identified by Sabella et al., and the empirical evidence (or lack of) for each along with potential consequences of the widespread belief in these myths are presented in Table 5.1 below. The perpetuation of these myths can have damaging effects on the ways that young people, their parents and other adults perceive the experience of cyberbullying, how they deal with it if it occurs, and the types of interventions that are proposed to address it. Sabella et al. highlight the importance of searching out empirical evidence to confirm or dispute such commonly held opinions of cyberbullying.

The media also has a role to play in helping to prevent the risk of 'copycat' suicides among young people. The Samaritans have issued guidelines to media reporters in order to reduce these risks. They recommend that details of suicides (such as the methods used) should not be reported, that language used in reporting suicide should be carefully considered and, that speculation about a 'trigger' for a suicide (e.g. cyberbullying) should be avoided. Young people may be more at risk of influence from media reports than adults and there is the possibility that young people will be more likely to identify with others who have completed suicide and to more sensationalist reporting (Samaritans, 2013).

Table 5.1

The seven myths about cyberbullying identified by Sabella, Patchin & Hinduja (2013)

Myth	Empirical Evidence	Potential Consequences
1. Everyone knows what cyberbullying is	There is wide variation and inconsistency between researchers and others in definitions of cyberbullying. Some languages have no direct translation of 'cyberbullying'.	- Leads to differences in prevalence levels which can cause confusion and misinformation. - Can lead to misuse of the term where incidents are reported as cyberbullying when they are not
2. Cyberbullying is occurring at epidemic levels	Inconsistent findings in the research literature as to true extent of cyberbullying, estimates range between 6% and 30%	- Becomes normalised among children and young people and seen as problem to report to adults - Can cause sense of hysteria/panic in adults leading to uninformed decisions in attempt to control youth behaviour
3. Cyberbullying causes suicide	Involvement in cyberbullying is one of many risk factors for suicidal ideation and suicide attempts. Majority of those involved in cyberbullying do not make suicide attempts	- Media reports focus on the technology used rather than the wider mental health problems experienced by youth. - Exposure to news items on suicide can be a risk factor contributing to suicidal ideation and may be more so for young people
4. Cyberbullying occurs more often now than traditional bullying	Majority of research studies show that cyberbullying is less prolific than traditional bullying	- Focus on either cyber or traditional bullying only means that the other is largely ignored and both need to be addressed for best outcomes for young people
5. Like traditional bullying, cyberbullying is a rite of passage all teens experience	Traditional and cyber bullying can both have long term negative impacts for those involved	- Bullying becomes normalised - Victims are not taken seriously or interventions not proposed when it occurs
6. Cyberbullies are just mean kids	Research has found that many do not see their actions as harmful. Many engage in cyberbullying as an act of revenge against bullies.	- Assumption that cyber bullies are easily identified. - Belief that 'good' students don't engage in cyberbullying
7. To stop cyberbullying, just turn off your computer or phone	Is not effective in stopping bullying. Doesn't deal with the behaviour of cyberbullying in any constructive way and is likely to deter victims from telling adults.	- Can be seen as a form of punishment for the victim - Is an unrealistic expectation in the longer term - Doesn't prevent messages

6 Responses to Cyberbullying

The research literature has proposed a number of possible strategies that can be used by individuals, parents, schools and, industry to help with the prevention and intervention of cyberbullying. Many of these suggestions however, are not based on empirical evidence of their effectiveness or are determined from correlational studies (Perren et al., 2012). Also, in some cases the advice offered is vague and abstract and doesn't provide guidelines on how to implement practices suggested, for example, many advise having clear sanctions for those found to be cyberbullying but don't suggest the types of sanctions that are effective in preventing a re-occurrence of the behaviour. Interventions that directly address cyberbullying are relatively new, especially compared to those in use to tackle traditional bullying, and this is one of the reasons why many strategies suggested have yet to find empirical support. Nonetheless, there is sufficient empirical evidence to propose a number of practices that are most likely to have an effect on preventing and reducing cyberbullying and its impacts among young people. There is also evidence to suggest that there are some strategies, although sometimes promoted by researchers and practitioners, which are unlikely to be effective in addressing cyberbullying. The strategies that are unlikely to work are outlined first, followed by those that have supporting evidence within the literature for their effectiveness.

6.1 Strategies that are Unlikely to Work

There is a growing body of advice aimed at young people on ways to cope with and prevent cyberbullying, in particular on the internet, which may be based more on intuitive common sense than empirical research findings. Inevitably some of this advice is counterproductive and may lead to an escalation of aggression rather than helping to end it. For example, some recommend a number of 'active' strategies such as blocking the sender, reporting them to web hosts and confronting the bully (Cassidy, Faucher & Jackson, 2013). In their review of the evidence on successful strategies to tackle cyberbullying Perren et al. (2012) found that in some cases these practices can lead to a

vicious cycle of attacks between the (original) cyber bully and their target. Other suggestions that may prove ineffective or harmful are outlined below.

Punitive Sanctions; Punitive responses to cases of cyberbullying are unlikely to be effective for some age groups (Thompson & Smith, 2010). Imposing punishments, such as detention or suspension, may be a useful way to deter younger children in primary school, but the research shows that for older adolescents more effective strategies involve including young people's views in determining sanctions and finding alternatives to these types of sanctions. Also in terms of addressing bullying over the longer term it has been reported that using a non-confrontational approach (e.g. focusing on concern for the victim and not applying blame to a bully) is more effective than merely confronting a bully and telling them to stop (Salmivalli & Poskiparta, 2012). Likewise, punitive actions from parents may simply serve to encourage children to hide their online activities from parents thus reducing the chances of experiences of cyberbullying being reported to them. These types of actions could also be seen as punishment from the perspective of the victim if their access to technology is restricted in an attempt to avoid their being cyber bullied. As previously outlined, many young people who had been cyberbullied reported not telling a parent out of fear of losing access to their internet and mobile technologies (Livingstone & Haddon, 2009).

Restorative Conferences; Restorative approaches, derived from restorative justice models in the criminal justice system, have also been shown to have limited effectiveness (Kowalski, Limber & Agatston, 2012). These types of interventions usually involve bringing the bully and the victim together to discuss what has happened between them. However, Kowalski et al. (2012) report that in many schools those leading such interventions are often not properly trained in administering restorative approaches and may cause more harm and discomfort to the victims than help. In some cases victims may be made to feel that they are in part to blame for the bullying and having to confront their bully can induce feelings of anxiety and fear. The effectiveness of restorative conferences in stopping bullying when leaders are properly trained has not been fully assessed to date and there is potential for these strategies to inform bullies of the impact of their actions on victims. Allowing a victim (or a victim's parent) the opportunity to express their feelings at being targeted may help to stop bullying in at least some cases.

Peer Mentoring; Peer mentoring initiatives have had mixed findings in terms of their effectiveness. A key issue in these approaches appears to be the level of training and ongoing support offered to young people selected to be peer mentors. In a review of cyberbullying intervention programmes across schools in the UK, Thompson and Smith (2010) found that many students (including victims of bullying) reported poor relationships with their mentors and a lack of trust in their abilities to support them. Those involved as mentors also reported a strong need for better adult supervision and support to give them the confidence to act as an effective support system for their peers. In theory peer led initiatives may appear to have many positive aspects, for example that young people would be more inclined to approach peers about problems, or that it encourages active involvement of young people in addressing cyberbullying, in practice they may not work as effective strategies in preventing or reducing cases of cyberbullying within schools.

Teaching Practices; The Department of Education and Skills has issued guidelines to teachers on strategies to avoid in addressing bullying with students as they have been shown to be ineffective. The practices advised against include; the use of scare tactics that can glamorise risky behaviour; using testimonials that may create heroes of those involved; information only interventions that may be limited in their usefulness for learning; once-off or short-term interventions; actions that may normalise risky behaviour and; didactic approaches that are only directive and don't offer solutions or practical strategies to young people (DES; Circular 0023/2010: Social Personal and Health Education (SPHE) & Relationships and Sexuality Education (RSE): Best Practice Guidelines for Post-Primary Schools).

6.2 Strategies that are Likely to be Effective

The strategies outlined below are those that have found some support in the research literature as effective in either preventing or stopping cyberbullying. They are presented here separately but most researchers and practitioners advise using a combination of strategies together to ensure best outcomes, in particular the need for schools, parents and young people involved in cyberbullying to collaborate in intervening in a case of cyberbullying are most often cited as being more effective than any one of these approaches alone.

In some cases where extensive evaluation has been carried out (e.g. Olweus Anti-bullying Programme and KiVa in Finland) on intervention programmes aimed at reducing traditional bullying findings have shown that the incidence of cyberbullying has reduced also. This would lend further support to the argument that cyberbullying should be addressed within the context of traditional bullying and that new programmes may not be necessary but an extension of existing bullying prevention strategies may be sufficient in competently addressing all forms of bullying both inside and outside of school.

Nonetheless, cyberbullying is increasingly being recognised as a largely covert and complex activity that may be difficult for either parents or teachers to identify and address (Pearce, Cross, Monks, Waters & Falconer, 2011). In addition, while there are many anti bullying programmes and intervention packages available, very few of these have been subjected to rigorous evaluation and their effects on reducing bullying cannot be statistically investigated, neither can the most, or least, useful elements of such programmes be determined in order to inform future interventions (Tokunaga, 2010). Below is a summary of the strategies and intervention approaches that have been found to show at least some level of effectiveness in either preventing or reducing cyberbullying in schools. It is not possible to review programmes that might be applied outside of school (e.g. public awareness campaigns) as none of these have been subjected to any form of empirical analysis.

Technological Strategies

A number of ways to stay safe while surfing the web have been suggested and are intended to reduce the risk of young people becoming involved in cyberbullying and of being exploited online. These include things such as; keeping passwords and login details secret; not disclosing personal details such as phone numbers or addresses; using privacy settings on social network sites; connecting only with other people known in the real world and; not agreeing to meet anyone that has contacted them online. These practices can be useful to protect children and young people from known risks online (Livingstone & Haddon, 2009) such as sexual exploitation and impersonation. However, as many cyber victims know their bullies through social groups in the real world (e.g. from school; Mishna, Saini & Solomon, 2009) they may not be sufficient in protecting them from cyberbullying.

Other forms of advice include teaching children how to block individuals from social networking sites, mobile phones and email. Most sites also have a facility to report abusive or threatening material to the web host, but many children will need to be taught how to use these facilities and what to expect from websites when they do (Livingstone & Haddon, 2009). Many sources also advise keeping messages and posts to use as evidence for schools or legal authorities if they are to be informed (e.g. Kowalski, Limber & Agatston, 2012). However, other researchers warn that this action may prove detrimental to young people already distressed and anxious about the content of such messages and this may lead to rumination about the cyberbullying (e.g. Cassidy et al., 2013). Schools may also have a role to play in terms of technological strategies that can help to prevent cyberbullying. In one UK study students reported that it was relatively easy to hack email accounts of others within school as passwords and login details were often easy to acquire from school computers (Wang, Ianotti & Luk, 2012). Schools therefore may need to assess their own security levels for open access technology in order to help prevent further cyberbullying of students.

Role of Coping Strategies

Most young people who experience cyberbullying do not tell an adult that they have been victimised (O'Neill, Gehran & Olafsson, 2011). There are a variety of reasons for this reluctance to seek support from adults including a fear of losing access to their mobile phones or computers (Smith & Steffgen, 2012) or because they believe that adults will be unable to do anything to help them (Livingstone & Haddon, 2009). The majority of cyber victims who do tell another person are most likely to tell their friends, followed by a parent and in a minority of cases a school authority (Cassidy et al., 2013). Given that many young people appear to cope with cyberbullying alone personal coping strategies must be employed to deal with these experiences. Research across psychology has identified a number of different types of personal coping, some that are effective in relieving stress (such as problem focused coping strategies) and others that may make stress harder to deal with on a day to day basis (such as avoidance of the situation).

Problem focused coping strategies, for example doing something differently so that the bullying doesn't occur again, have been shown to reduce the amount of stress experienced by victims of bullying (Vollink, Bolman, Dehue & Jacobs, 2013). Such

strategies that focus on practical measures that can be taken by a cyber victim appear to be the most commonly used means of addressing cyberbullying, at least in the first instance, among young people themselves; however the effectiveness of such strategies in stopping cyberbullying is unclear (Tokunaga, 2010). Such strategies are also likely to be used more by older children and adolescents as social problem solving skills tend to develop over time with age, and younger children may have particular difficulties in implementing these types of strategies (Dooley, Shaw & Cross, 2012).

In contrast, Vollink et al. (2013) found in their study of 325 participants that victims of cyberbullying most often used passive and avoidant types of coping strategies which are likely to exacerbate the negative impacts of bullying and may serve to continue their victimisation (Vollink, Bolman, Dehue & Jacobs 2013) . The participants in this study were aged 11 to 12 years old, whereas findings reported on by Tokunaga were primarily from studies with older adolescents. It is possible that younger children are less capable of finding practical means of addressing cyberbullying due to both their cognitive development and experience with social media when compared to older teenagers. This could lead to more negative impacts for younger children as passive coping strategies (doing nothing) or avoidant strategies appear to increase stress felt by victims and to be ineffective in stopping the bullying (Perren et al., 2012).

These findings indicate that if children and young people were taught how to engage in more problem focused coping strategies instead of passive or avoidant strategies they may be better equipped to deal with incidents of cyberbullying and could learn more effective ways of dealing with it if they are victimised. Such problem focused strategies are often termed technological strategies within the literature and include; using stricter privacy settings online; changing passwords or user names and; blocking others from social media and/or email accounts.

6.3 What Parents can do

Parents often are not present in the online environment of their children and as such may not be aware of cyberbullying or victimisation that their children are experiencing. The EU KIDS Online survey found that many parents believe they are not as technologically knowledgeable as their children are and feel unable to ensure their safety online (Livingstone & Haddon, 2009). As such, there is a need for parents to

become informed about both the types of activities their children engage in online and ways to ensure they are safe from cyberbullying and other risks.

The first challenge that parents need to overcome is the reluctance of many young people to tell them when they witness or are a victim of cyberbullying. Older teenagers in particular are unlikely to inform their parents of cyberbullying experiences partly because they feel they will be unable to help but also because young people fear a loss of access to technology if their parents know about them (Kowalski, Limber & Agatston, 2012). Guidelines for parents therefore usually include advising parents to talk to their children about being responsible and safe online and to discuss with their children ways to deal with cyberbullying if they arise (COST, 2012).

The importance of parents as role models is also stressed in the literature (e.g. Kowalski et al., 2012). Parents are advised to ensure that children learn how to interact online without aggression and with respect and tolerance and to show children that they disapprove of cyberbullying. This is also recommended as a means of encouraging children to report cyberbullying of others when they witness it to a parent or other adult (COST, 2012). In addition, parents need to familiarise themselves with school policies on cyberbullying and what to do if they suspect their child is being bullied. It is also important for parents to understand the potential impacts of cyberbullying on children and that many who are cyberbullied can also be engaged in bullying others online. Finally, parents are advised to make themselves aware of some of the possible warning signs that their children are being bullied online such as; becoming withdrawn, appearing upset after viewing a text message, a drop in academic performance and, withdrawal from social interactions (COST, 2012; Kowalski et al., 2012). In these ways parents can be more confident that their children will be safe from harm while online, that their children will communicate with them when they encounter something online that upsets them and will be able to take practical steps to intervene if their child becomes involved in cyberbullying.

Also, while few studies include the views of parents in investigating cyberbullying among young people, one qualitative study found that for the majority of parents (N = 20) only direct, physical bullying was considered to be serious enough to warrant intervention. Many of these parents perceived bullying as a normal part of growing up and failed to understand the possible consequences of bullying or victimisation for their children (Sawyer, Mishna, Pepler, & Weiner, 2011). This study

shows the importance of informing parents about the nature and impacts of cyberbullying on their children and of offering constructive means of preventing it and of supporting their children if they become involved, and of not assuming that all parents will view bullying as seriously as other authorities might.

6.4 What Schools can do

Although it is acknowledged that most cyberbullying takes place outside of the school grounds it is primarily through school programmes that cyberbullying and its effects have been addressed and assessed. There are no existing anti-bullying programmes that focus only on cyberbullying, instead established intervention programmes have been modified and extended to include issues surrounding cyberbullying as a complete programme to address all forms of bullying. Some schools have implemented particular focused practices (e.g. peer mentoring) alone as a means of preventing cyberbullying or supporting those who have been victimised. Other schools, particularly in Scandinavian countries where schools are legally required to have anti-bullying initiatives in place, adopt a wider, more comprehensive approach that includes curriculum based aspects, collaborating with parents and creating a school climate that reinforces positive behaviour.

Whole School Interventions

Overwhelmingly the research shows that the most effective means of preventing bullying in schools is through 'whole-school' approaches that help to create a climate of openness and trust between students, teachers and school authorities (Cross et al., 2012; Farrington & Ttofi, 2009; Smith & Steffgen, 2012; Thompson & Smith, 2010). In this vein new national procedures on anti-bullying will be implemented to primary and post primary schools in Ireland in 2014 to address current understandings of bullying within schools (Action Plan on Bullying, 2013). Positive and pro social behaviour from students needs to be acknowledged and promoted in schools, whether alone or alongside sanctions for disruptive or negative behaviour. In the whole school approach, it is argued, desired behaviours that are encouraged at school should further be promoted at home and in the wider community, thus they require the cooperation and investment from student's families and others involved in their care (Cross et al., 2012).

Whole school interventions also seek to include the support and input from all stakeholders with a view to protecting young people, including parents and the wider

community. There are a number of approaches that can be used that involve creating a positive and trusting school atmosphere and of interacting with the community to help reduce and prevent bullying. Sharing information about anti-bullying policies with parents, as well as training information nights and parent-teacher meetings are associated with a decrease in bullying and victimisation in students (Smith & Steffgen, 2012). Additionally, school assemblies can be used to ensure students are made aware of the nature of cyberbullying and of school policies around it.

The first step recommended by researchers and programme developers is to make anti-bullying policies clear for teachers, students and parents and to ensure that there are guidelines for dealing with cyberbullying that can be consistently applied. Young people themselves report that they desire more input into the construction of school anti-bullying policies and that they feel they need to be clear and consistent in order for students to have trust in them (Ombudsman for Children, 2012). There should also be the opportunity for all stakeholders to have some input into the formulation of school anti-bullying policies (Ombudsman for Children, 2012). Once these are in place there are a variety of initiatives that have been found to have some effect on reducing or preventing cyberbullying among students (Farrington & Ttofi, 2009). Each of these will be outlined separately below as each set of interventions or school may use different combinations of these strategies. It should be noted that the majority of interventions reported in the literature are aimed at secondary schools when cyberbullying appears to be at its peak. However, with growing access to technology at increasingly younger ages primary school students should not be assumed to be uninvolved in cyberbullying or that they will not become increasingly involved in the future.

Individual Level Interventions

Interventions aimed at the individual usually focus on the victims and bullies involved in cyberbullying, and would therefore be introduced after the bullying has taken place. These types of interventions can include restorative interventions, problem solving training for teachers, support for victims, strategies to modify the bully's behaviour and, facilitating links with health or psychological professionals for both (Farrington & Ttofi, 2009). Interventions at this level should aim to include families and school counsellors as well as teachers and the children involved. As outlined previously, most young

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people who are involved in cyberbullying are also involved in traditional bullying so these types of interventions will likely need to address both. Some programmes utilise the peer mentoring system in these situations where victims would be given support by selected peers. These approaches need to be carefully managed however, as in some cases it may place undue pressure on victims in particular by singling them out for intervention (Thompson & Smith, 2010).

Peer Group Interventions

Bullying is seen as a group process and many researchers advise that anti-bullying interventions should be targeted at the peer group rather than at individual bullies and victims (Salmivalli, 2010). Bystanders in this sense can find themselves in a social dilemma as to what to do when they witness cyberbullying. As outlined previously, bullies can often be perceived as popular among classmates and victims may be perceived as being weak or deserving of their victimisation. While most bystanders agree that bullying is wrong and may express a desire to intervene and support the victim(s) the majority do nothing. As argued by Salmivalli (2010), bullies can perceive bystander inaction as support for their behaviour and this may offer reinforcement to bullies thereby increasing the chances of its continuance. In contrast, when bystanders defend victims this can often put an end to bullying as bullies no longer receive positive social reinforcement for their behaviour. In addition, bystander support has also been shown to help buffer the negative impacts of being victimised even when the bullying continues.

Given that most bystanders already hold anti-bullying attitudes or beliefs, intervention strategies could potentially utilise these to encourage bystanders to act in supporting victims of bullying when it is witnessed. By raising awareness of their role as bystanders and increasing understanding of the impacts of cyberbullying on victims, bystanders can be encouraged to help to reduce bullying among the peer group. However, they need to be taught how to support victims in a safe and constructive way and having clear guidelines which can give young people the necessary self-efficacy to intervene is suggested as good practice (Salmivalli, 2010). Specifically, in the case of cyberbullying young people need to be educated about social decision making online and how to prevent, respond to and report cyberbullying, as much cyberbullying happens without adult knowledge (COST, 2012). A recently evaluated anti-bullying

school programme, the KiVa programme in Finland, uses similar principles in its approach to tackling bullying. The evaluation found that such an approach reduced bullying and victimisation in the schools included but also helped to increase empathy towards victims, self-efficacy towards defending and, peer support for victims (Salmivalli & Poskiparta, 2012).

An important aspect of any anti-bullying policy within schools is the active involvement of students in formulating policy rules and determining sanctions for those found to be bullying others. In building a positive school climate in which students feel empowered it is important to acknowledge the crucial role that students themselves play in creating such an atmosphere (Smith & Steffgen, 2012). The concept of peer mentoring programmes is supported by many young people, parents and teachers (Cassidy et al., 2013). However, these interventions will only be effective if mentors are given sufficient training to mentor their peers and ongoing support from adults throughout the process (Thompson & Smith, 2010). This is especially important given the finding that some peer led interventions can lead to an increase in victimisation (Farrington & Ttofi, 2009). Peer mentoring, and other peer led interventions, should not be seen as a stand-alone intervention that can be useful in preventing cyberbullying without a corresponding effort on the part of school authorities in creating an open and trusting environment for all students where they are confident in reporting experiences of cyberbullying to the relevant authorities. They also need to be monitored by school authorities to ensure they are being conducted in the ways intended as in some cases they can create conflict within mentoring groups (Paul, Smith & Blumberg, 2010).

Classroom Interventions

Classroom level interventions can be dedicated curriculum based lessons or incorporated into other classes within the regular curriculum. They include a variety of strategies such as; teaching 'netiquette' (respectful behaviour online), empathy and social skills training, building self-efficacy in intervening in bullying situations, teaching about the impacts of cyber victimisation and, discussing understandings of cyberbullying among young people. Classroom focused interventions can also be used to create positive relationships between teachers and students and to help teachers understand the effects of cyberbullying on young people. Such approaches are also an opportunity to promote pro social behaviour in school and online and offer a chance to

reinforce positive behaviour among students. Additionally, classroom based activities can be used to interact with students in forming policies and rules regarding bullying and cyberbullying which is thought to encourage abidance by rules as students feel that they have been consulted and have a sense of ownership (COST, 2012).

Some established anti-bullying programmes include training for teachers in conflict resolution within the class and effective behaviour management techniques in order to promote pro social interaction among students (Farrington & Ttofi, 2009). In order for classroom interventions to be effective teachers need to be informed of school policies on cyberbullying and have clear guidelines on how to respond to it when they become aware of it. Modelling of positive and pro social behaviour is cited as being of importance in promoting an ethos of care and positive interaction within the context of the whole school (Olweus, 2012). Classroom interventions can also be used to promote the effective use of bystander intervention and to establish an attitude within the whole class that is anti-bullying. This can further be used to increase self-efficacy for intervening in bullying situations and reporting to school authorities when cyberbullying is witnessed.

Thompson and Smith (2010) found that classroom based interventions worked best in addressing bullying when they were incorporated into more creative subjects such as SPHE and drama. Subjects that allow for cooperative group work, and similar approaches such as 'circle time' where small groups of students meet with each student having an opportunity to speak, were found to be most effective. However, the authors note that these types of approaches are often not used in schools as they are time consuming and may be difficult to implement in some schools (for example in special needs schools). They also require some level of teacher training to be useful and this may be an additional difficulty for schools. Training support services for teachers have been implemented in Ireland under the Action Plan on Bullying (2013) where continuing profession development programmes have been developed and are being introduced on a phased basis from 2013.

The effectiveness of classroom level interventions can be influenced by the amount and intensity of training offered to teachers. Some programmes have clear structures in order to provide this to teachers (e.g. Olweus Anti-Bullying Programme) but others are vague and cannot give details of the extent of training that is on offer (Farrington & Ttofi, 2009). Where this information is available teacher training,

classroom management and classroom rules within the context of a whole school anti-bullying approach were found to be most effective in reducing bullying in schools in a meta-analysis of 44 intervention programmes carried out by Farrington & Ttofi (2009). However, these programme elements were found to work better with older children included in the evaluations (12 to 13 years old) compared to those under 12 years old, and this may reflect differences in both cognitive and emotional development between younger and older children. It is possible that different types of interventions need to be utilised for primary and secondary schools in order to effectively reduce the incidence of bullying and cyberbullying in each of those schools.

School Climate

Much of the research on effective intervention strategies to prevent both traditional and cyber bullying show that the perceived school climate and the level of trust that young people feel for teachers and other school authorities is an essential factor in both reducing bullying and in encouraging victims and bystanders to report incidents (Cassidy, Faucher & Jackson, 2013). Creating an 'ethic of care' within the school environment where pro social behaviour is modelled and promoted by teachers and school authorities can facilitate in this and help to encourage students to report cases of bullying or cyberbullying that will allow for swifter response and may act as a buffer against some of the more negative impacts on victims, bullies and bystanders.

Worryingly, in a qualitative study with 19 teachers from Canadian secondary schools, Cassidy, Brown and Jackson (2012) found that there was a widespread lack of awareness among teachers as to the extent of cyberbullying within their schools. While the teachers in this study stated that prevention was the most important action to take against cyberbullying, and many offered practical means to do this, neither of the two schools involved had implemented any policies in this vein. The authors also reported that the teachers they interviewed seemed uninterested in learning the results of a student survey they had conducted on cyberbullying and concluded that the schools and teachers preferred that cyberbullying was ignored and remained under the radar. This is just a single study however, and the extent of these types of attitudes towards school bullying is not possible to estimate without research on a wider group of schools. Hinduja and Patchin (2013) suggest that in order to effectively tackle cyberbullying and

to encourage students to report witnessed or experienced cyberbullying it is necessary to have clear and consistent sanctions that students and teachers are aware of.

For those young people who do not receive support from their parents for whatever reason, in a study of almost 1,000 participants, victims of bullying who received support from teachers instead were found to show fewer symptoms of depression compared to victims who received neither. When parental support was high this effect was not significant (Connors-Burrows et al., 2009). In Sweden, where school based anti-bullying programmes have been in place for some time, one retrospective study found that the most common reason that young people gave for bullying against them to stop was the intervention of school personnel (Frisen, Hasselblad & Holmqvist, 2012). The findings from this study on the potentially similar effects of teacher support for young people who do not have such support from their parents further highlights the important role of trusted adults in helping to buffer the negative impact of victimisation by bullying.

However, the Frisen et al. (2012) study above also found that in some instances victims of bullying who did report their experiences to school personnel had not received any help from them or that interventions were used but were unsuccessful in addressing the problem. A further large scale study in the UK found that up to 45% of cases of bullying reported to school officials resulted in continued bullying or a worsening of the situation for victims (Smith & Shu, 2000). The authors of both of these studies argue that in most of the cases teachers, and other school staff, lack the necessary training and practical information as to how to deal effectively with reported cases of bullying and/or cyberbullying and that there is clearly a need to actively educate school personnel on how to react to such reporting that is most likely to result in successful outcomes for all involved.

Working with Parents

Many intervention programmes (e.g. Friendly Schools, Friendly Families Programme; FSFF) include specific elements to raise awareness and encourage collaboration between families and schools. While schools are often keen to involve parents in their anti-bullying programmes, some have difficulties in engaging parents and in one evaluation where a school had organised a parent awareness session no parents turned up (Thompson & Smith, 2010). However, there is little advice available to schools on

how to avoid this type of situation, although the FSFF programme offers training to school staff on ways to better engage parents of primary school children. For some schools it may be too difficult to obtain a commitment from parents or families to fully implement a cross-collaborative intervention and they may have to proceed without this input. However, efforts should be made to include parents in anti-bullying interventions as this was found to be one of the most effective elements of programmes that helped to reduce bullying in schools in Farrington and Ttofi's meta-analysis of intervention programmes (2009). In Ireland, for example, the Action Plan on Bullying launched in 2013 has provided funding for parent training on anti-bullying practices that is to be further support throughout 2014.

6.5 The Role of Policy Makers

Policy makers (in both the educational and legal sphere) have an important role to play in promoting anti-bullying practices in schools and the wider community. The sections below outline the initiatives being put in place by working groups, the Department for Education and Skills, and departments within the EU that are aimed at preventing and intervening in bullying and cyberbullying within schools and the wider community.

Current Requirements on Schools

Currently all schools are required to have in place a code of behaviour that applies to all students and to have an anti-bullying policy. The Department for Education and Skills (DES) has also produced a number of templates for schools to aid in addressing bullying in schools including a template for developing an anti-bullying policy and a template for recording incidents of bullying (available at www.education.ie). The DES website also includes a number of guidelines and procedure documents aimed at both primary and secondary schools including; Well-being in Post-Primary Schools Guidelines for Mental Health Promotion and Suicide Prevention (DES/DOH/HSE, 2013); Action Plan on Bullying (2013); Anti-Bullying Procedures for Primary and Post-Primary Schools (2014) and; Student Support Teams in Post-Primary Schools (2014) all of which are available on their website. In addition to these guidelines and best practice documents there are a number of Acts that schools are legally required to abide by.

Equal Status Acts; schools are required to take reasonable steps to prevent the harassment of individuals on the basis of individual, personal or cultural grounds. This

includes having a policy and procedures to address bullying of students, staff and visitors to the school.

Education Welfare Act (2000); under this act all schools are required to have a code of behaviour in accordance with the National Education Welfare Board guidelines of 2008. Codes of behaviour should make clear that bullying is unacceptable and the actions that will be taken by schools if it occurs. This act also states that policies should be developed in consultation with the wider school community including parents, staff, students and, school boards.

Education Act (1998); this act states that one of the functions of schools is to promote the moral, social and, personal development of students and to provide health education in consultation with parents. It recommends that complaints about bullying should be dealt with at the local level (i.e. internally by schools) where possible, but also that both internal and external pathways should be developed as part of the schools guidance plan.

Curriculum Approaches; there are provisions within the primary and secondary school curricula to prevent victimisation and harm among students. For primary schools the 'stay safe' programme works to enhance the self-protective skills of children across a range of situations and encourages telling an adult when harmful situations arise. The Social Personal and Health Education (SPHE) module is compulsory for primary schools and for the junior cycle of secondary schools. SPHE is designed to promote the personal development and well-being of students and time can be allocated to focus on issues around bullying including conflict resolution, friendship, safety and, relationships. The new junior cycle includes learning and skills outcomes that can be met through SPHE that includes online 'netiquette' as well as online safety and demonstrating respect for others. In addition, there is an opportunity to address other issues relevant to cyberbullying through the Civic, Social and Political Education (CSPE) module in secondary schools such as online privacy, rights and responsibilities and raising awareness of cyberbullying and its impacts. Additionally, 'wellbeing' is a key principle of the new Junior Cycle Student Award.

Legal Sanctions

Legal sanctions against those who cyberbully have become more prominent within the US in the past few years and these have resulted in a small number of prosecutions of

young people found to have bullied others online. There have also been calls, mostly from politicians, for stronger criminal legislation to be introduced in Ireland to make the prosecution of cyberbullies easier. However, it is questionable whether criminalising cyberbullying would have any effect on its practice, prevalence or impacts. As outlined already in this literature review, most of the negative impacts associated with cyberbullying co-occur with other negative life events and cyberbullying is usually just one of a host of risk factors that impact on a young person's overall mental health. Also, there is sufficient evidence in the research literature to suggest that in many cases those who perpetrate cyberbullying have a number of mental health problems themselves and it may be more useful in the long term to find means of addressing such difficulties in both bullies and victims instead of using merely punitive sanctions against one group.

To date there is no legislation that specifically targets cyberbullying. Some acts of cyberbullying may constitute offences under the Non-Fatal Offences Against the Person Act (1997) but these may be difficult to prove as the immediate threat of violence must first be established. A further issue regarding cyberbullying is the fact that most of it occurs between minors. In Ireland the age of criminal responsibility is 12 years. In order to have criminal legislation that targets all those who engage in cyberbullying it would also be necessary to reduce the age of criminal responsibility to include children younger than 12 as well. Also, as described in previous chapters, researchers often have conflicting definitions of cyberbullying and the acts that constitute it; this would need to be clearly established if legislation were to be considered. The nature of cyberbullying also makes the establishment of the behaviour as a crime problematic. For example most researchers in the field of bullying/cyberbullying agree that repetition is a criterion in the definition of bullying, but a single online post can be disseminated by many others and may be difficult if not impossible to remove permanently from the web, thus making it difficult to decide who is most responsible for cyberbullying another. Finally, without similar international legislation, criminal law in Ireland may not apply to those who use websites that are based in other countries, making Irish legislation unusable in such cases.

7 Summary and Conclusions

Cyberbullying has attracted the attention of young people, their parents, school staff, policy makers and the media over the last number of years. Unfortunately much of the understanding of cyberbullying and its impacts are not based on empirical research and often what research does exist is conflicting and fails to give a clear picture of the phenomenon of cyberbullying. This chapter will provide a summary of what has been established within the research literature as they relate to the research questions outlined in Chapter 2 and concluding remarks on what is currently known about cyberbullying and ways to address it.

7.1 Research Questions Addressed

1. What is cyberbullying and how prevalent is it?

Definitions of cyberbullying can vary across research studies and across countries. In its most general terms cyberbullying can be defined as repetitive, intentional targeting of another through social media or other electronic technologies. Cyberbullying has been found to be much less prevalent than traditional or face to face bullying, and many of those involved in cyberbullying are also involved in traditional bullying. In Ireland, approximately 23% of children report experiencing traditional bullying whereas just 4% of this group report experiencing cyberbullying, although this rises to 9 or 10% for mid adolescents (Livingstone & Haddon, 2009).

2. Who is most at risk of becoming involved in cyberbullying?

Those most at risk of being cyberbullied appear to be the same young people who are at risk of traditional victimisation as well, or those who bully others face to face. Children and young people who have poor peer and social relationships are also at increased risk of victimisation as they may stand out as targets for bullies and are also least likely to have adequate social support from peers to buffer these vulnerabilities. Children and young people who experience cyberbullying have also been found to have both internalising (emotional) and externalising (behavioural) problems which can impact on both their peer relationships and make them likely targets for cyberbullies. In addition, young people who spend more time online and who are not supervised by

parents are at an increased risk of experiencing cyberbullying compared to those who have their online activities monitored and spend less than two hours online daily.

Young people who bully others face to face appear to be most at risk of also engaging in cyberbullying. Those who cyber bully others have been found to show moral disengagement or a lack of empathy for their victims and may not always be aware of the harm they cause. In some cases cyber bullies have been victims of traditional bullying and use this as a means of revenge on their (traditional) bullies. Cyber bullies may also be more prone to anti-social beliefs and more pro bullying or aggressive attitudes. In other cases young people may see cyber bullying as a means of promoting and enhancing a particular reputation among their peers and cyber bullies are often rated as popular by classmates.

Bully-victims are usually the smallest group of young people involved in cyberbullying and can include those who are bullies in one context (e.g. traditional bullies) and are victims in another context (e.g. cyber victims) or be both bullies and victims online. Those who bully others online are often at greater risk of being targeted themselves in this context. Bully-victims may have similar difficulties to both bullies and victims such as peer relationship problems and behavioural and emotional problems. This group is also most likely to be victimised through all types of bullying including direct, indirect or relational, and cyberbullying and may be at risk of becoming both victims and bullies due to a tendency to react aggressively to being targeted by others which can lead to an escalation of the behaviour with little opportunity for it to be stopped.

By far the largest group of young people who can be seen to be involved in cyberbullying are those who witness it, or bystanders. Young people can become bystanders to cyberbullying by being with the bully when a message is sent, with the victim when it is received, being forwarded messages, pictures etc., or by viewing online content on public forums. While most bystanders report that they are upset by witnessing cyberbullying the majority do nothing to intervene. Reasons for this inaction may be because they dislike the victim or see them as responsible in some way, because they fear becoming targets themselves, they may see no harm in what is being posted or, they may lack the confidence or self-efficacy to show the victim their support.

When research has explored whether there are gender differences in the groups involved in cyberbullying the findings have been inconsistent. Some studies find males

are more likely to be involved, some find that females are most likely to be involved and yet other studies find a comparable level of involvement. Research in the area of traditional bullying has found in the past that females are more likely to engage in indirect or relational bullying which often consists of excluding others or attempting to harm another's reputation. It is possible that if researchers looked at the different types of cyberbullying activities that young people engage in they may find more distinct gender differences for levels of involvement in this area. Likewise, when trying to determine age differences for involvement in cyberbullying studies have found conflicting results. In general, older teenagers tend to report greater involvement but this may be due to a number of factors including; most research is conducted with this age group; this is the age at which internet and mobile phone use peaks; this age group may be more likely to have unsupervised access compared to younger children and; teenager's interactions and relationships with peers tends to increase at this age, and this may be increasingly through social media.

3. What are the impacts of cyberbullying?

Most research that investigates the potential impacts of cyberbullying tends to group young people involved by the different roles that they play, as victims, bullies, bully-victims or bystanders.

Due to the consistent findings that a majority of young people who are cyber victimised are also often subject to traditional types of bullying it is difficult to determine whether negative impacts on young people result from cyber or traditional victimisation. There are also other co-occurring life events that can increase the risks of experiencing impacts such as depression, anxiety or suicidal ideation, such as family malfunction or neglect. Cyberbullying therefore is most often considered to be one of a number of inter-connected risk factors for poor mental health in young people but is rarely argued to be the sole factor in producing such impacts. More concrete impacts of experiencing cyberbullying can be seen in terms of negative academic impacts such as feeling unsafe at school (due to anxiety of being targeted there), a reluctance to attend school which can lead to truancy and, low concentration which can affect grades, learning and general academic outcomes.

In terms of the impacts of involvement in cyberbullying on those who bully others the research is less clear than that for victims. Within the literature there are

inconsistent findings with some studies claiming that cyber bullies show higher levels of impulsivity, aggressiveness and conduct problems, while other studies report that cyber bullies may represent the 'typical' teenager or young person. A number of studies have reported that cyber bullies often fail to realise the harm that they cause to targets and this may be linked to possible difficulties with empathic responses in cyber bullies. Over the long term cyber bullies potentially are at greater risk of substance and alcohol abuse and risky or illegal behaviours compared to those who have never cyberbullied others.

Bully-victims may be at risk for the most negative impacts that are experienced by both bullies and victims. This group is likely to have the poorest peer relationships and tend not to seek help or support when they are victimised thus increasing the intensity of negative impacts. Bully-victims are also more at risk of responding to bullying in more aggressive ways than other groups and this can mean that the cycle of bullying and victimisation both escalates and perpetuates for this group putting them at risk of more long term negative impacts.

Differences in impacts across gender and age have been reported inconsistently within the literature. Overall, it appears that girls are at greater risk of negative impacts of being cyberbullied but may be more likely to seek support than boys which can help to buffer these impacts. Most research on cyberbullying has been conducted with adolescents to the exclusion of younger children and older individuals. Studies that wish to compare differences across age groups need to take account of the differences in cognitive and moral reasoning that may have an effect on both how cyberbullying is perceived in different groups and how they deal with experiences of cyberbullying.

3.a. What are the impacts on mental health and suicidal ideation?
Overwhelmingly the research shows that cyberbullying is not the sole causative factor of attempted suicide in young people. While many studies show that cyberbullying is a risk factor and may increase levels of suicidal ideation, this occurs in conjunction with other risk factors such as mental health difficulties or family problems. From the research it appears that it is the bullying experience that impacts on mental health, in particular stress, depression and anxiety, which in turn increases the risks of self-harm and suicidal ideation in young people and not the means by which it is carried out. The high level of overlap between experiences of traditional and cyber bullying among

young people suggests that programmes or policies that focus only on the impacts and behaviours associated with cyberbullying will be of limited benefit to most young people, and that a more holistic approach to preventing and coping with bullying and cyberbullying would be more effective in protecting young people from the negative effects of such experiences. A first priority in supporting young people should be to find ways to identify, and offer support to, those who are already experiencing mental health difficulties who are at greater risk of becoming involved in bullying and cyberbullying and of suffering the most negative impacts they carry

4. What is the influence of environmental factors?

Poor relationships between children and parents, harsh discipline, family distress, neglect, abuse, and domestic violence can increase the risk of young people becoming involved in cyberbullying. In contrast, young people who have strong support from their families and experience authoritative parenting are less likely to have experiences of cyberbullying either as bullies or victims, and for those who are victimised good family/parent relationships act as a buffer against negative impacts. Likewise, positive peer relationships can help to buffer negative impacts of being cyberbullied, with those who experience peer rejection being more likely to be victimised and to suffer more negative effects.

A positive school climate where students feel they can trust teachers and other school authorities is linked to lower incidence of cyberbullying and a higher rate of students reporting cases. When students report that they feel schools do not take cyberbullying seriously or that they are unable to intervene this is associated with more pro-bullying attitudes among students and a lower likelihood of reporting to teachers. Media reporting on cyberbullying is seen by some researchers as having a detrimental effect on attitudes and beliefs related to cyberbullying and on the ability to use effective intervention strategies. Some reporting is seen as sensationalist and disproportionate and there is concern that this may lead to a neglect of the much wider general problem of bullying among young people.

5 & 6. What is effective in preventing and intervening in cyberbullying?

A number of strategies to prevent and intervene in cyberbullying have been proposed in the literature although many of these have not been empirically tested and may subsequently be found to be ineffective when they are subjected to more rigorous

analysis. Firstly, strategies that have been shown to have little positive impact on cyberbullying include; the use of punitive sanctions, especially for older children and adolescents; restorative conferencing that can be a source of anxiety for victims and; peer mentoring approaches that often suffer from a lack of adequate training and ongoing support for young people involved.

Strategies proposed to aid in preventing and intervening in cyberbullying have shown some support within the literature and are aimed at the individual, families, schools, industry and the media. Firstly, effective coping strategies, such as problem focused coping, are recommended for those who experience cyberbullying but not all young people have sufficient knowledge to use these and may need to be trained in effective techniques. Some research suggests that parents are either unaware of their children's experiences of cyberbullying or they fail to see the possible negative effects it can have. It is important therefore to ensure that parents are fully informed about what cyberbullying is, how they can talk to their children about it, and what they can do if they discover their child is involved.

School based strategies that are consistently recommended include promoting an 'ethic of care' within the school where students can feel that cyberbullying is taken seriously by authorities and that it will not be tolerated by school staff. Having a clear policy that outlines the consequences of cyberbullying and means to report cases to school authorities are cited as being vital in helping to promote this positive, trusting, atmosphere among students and staff. A number of studies have found that teacher intervention can be detrimental for some students and this has been shown to be due to a lack of knowledge or training of teachers in effective ways to address cyberbullying. There is a need, therefore, for all school staff to be fully informed of the issues surrounding cyberbullying and of the most effective ways to deal with it.

7.2 Conclusions

There are a number of recommendations made within the literature that are put forward as means to prevent or address cyberbullying. However, much of this literature is lacking in evidence based support as to their effectiveness (Perren et al., 2009; Salmivalli & Poskiparta, 2012). Research in the area of cyberbullying is still in a relatively early stage and many studies to date have focused more on establishing clear definitions of cyberbullying and the extent of the problem than on uncovering the

deeper issues involved. There is less focus on understanding the motivations and impacts of cyberbullying and effective ways to prevent it or to address it when it occurs. This has led to a number of suggestions for young people, parents and schools that may ultimately be ineffective at best or detrimental at worst.

Some of the strategies that have been proposed have subsequently been found to have little effect on cyberbullying and in some cases may make the situation worse usually due to identified problems with implementing strategies within schools. Some of the problems encountered and suggestions for resolving these are given in Table 7.1 below.

Table 7.1

Problems that can be Encountered by Schools in Effectively Implementing Interventions

Intervention Required	Problem identified	Authors (Year)	Possible solution	Impact if not Addressed
Teacher training in positive ways to prevent bullying, intervene in identified cases.	Lack of trainers, resources and time. Insufficient ongoing support.	Pearce et al. (2011)	Additional resources to schools to complete full training for teachers/school authorities	Lack of ability to adequately address cases of (cyber) bullying and victimisation
Creating a positive school ethos/culture	Lack of time or resources. No commitment from teachers or school staff	Cassidy et al. (2012)	Education for teachers and staff on possible impacts of cyberbullying and means to address it.	Cyberbullying will remain largely under reported and interventions will not be introduced.
Effective school policies that address (cyber) bullying	Unclear policy statements. Lack of guidance/education of teachers or staff	Thompson & Smith (2010)	Requirement to produce clear guidelines that students understand. Direct involvement of students in creating guidelines that they can respond to.	Students are unsure of what to do in cases of (cyber)bullying or are reluctant to report cases to school authorities. Students feel school is not interested in tackling (cyber) bullying.
Consistent reporting structures for students to use in cases of (cyber) bullying	Lack of awareness among students of facilities available. Lack of clear guidelines available	Hinduja & Patchin (2013)	Create awareness of individuals available to report cases of (cyber) bullying to or other means of reporting anonymously.	(Cyber) bullying goes unreported and victims fail to seek help or support.
Promoting positive relationships	Lack of awareness and/or training for teachers. No	Pearce et al. (2011)	Training and education for teachers on the	Students feel they cannot approach teachers when

between students and teachers within the classroom	evaluation of effectiveness of classroom techniques. Lack of ongoing support for teachers.		importance of building trusting environment with students. Providing sufficient training and support in classroom management	problems arise. No trust in teacher's ability to deal with cases of (cyber) bullying. Cases go unreported, victims are not supported.
Encouraging bystanders to intervene or report in witnessed incidents of (cyber) bullying to help prevent and reduce cases.	Bystanders report wanting to intervene but very few act on this.	(COST, 2012)	Awareness raising for all students as part of whole school approach. Better guidelines for bystanders on how to intervene and how to report incidents.	Victims do not receive peer support which can act as a buffer to negative impacts of (cyber) bullying. Bystanders or victims react in aggressive ways that leads to an escalation of bullying.
Involvement and support from parents in addressing (cyber) bullying	Lack of interest from parents. Fail to recognise impacts of (cyber) bullying.	Thompson & Smith (2010). Sawyer et al. (2011)	Awareness training for parents. Initiatives to involve parents in more school activities to encourage feelings of engagement. Parent teacher meetings	Parents may be unaware of anti bullying programmes in schools. Parents remain unaware of potential impacts of (cyber) bullying on children and fail to intervene or report incidents. Children fail to inform parents of victimisation incidents.
Important elements of evidence based programmes to be implemented	Lack of fidelity to programmes, insufficient resources to fully implement parts of programmes (e.g. training)	Cross et al. (2012), Thompson & Smith (2010)	Provide sufficient resources to schools. Identify all necessary elements of programmes and identify and plan school's capacity to implement them	Programme is ineffective. Time and money is wasted on interventions that are not given sufficient support to work.
An assigned task force who will be trained and available to address issues of cyberbullying	Lack of commitment from teachers. Lack of time or resources. Insufficient training for staff	Cross et al. (2012). Thompson & Smith (2010)	Awareness of need for task force among staff. Proper training provided and ongoing support.	Interventions are not implemented fully. No staff are adequately trained to address cyberbullying

In summary, there is still much work to be done to comprehensively understand cyberbullying in order to better address it and to work towards preventing it among

young people. For example, the role of the media, in particular social media, in helping to prevent cyberbullying has not been investigated to date even though it is likely to have an influence on online behaviour and may serve to undermine the behaviours and attitudes promoted through anti-bullying strategies adopted by schools.

Recently there has been a considerable amount of interest in influencing children's risk behaviour, especially physical-health risk behaviour, in the area of: dieting, exercise, smoking, drug abuse, alcohol abuse, sexual risk behaviour, and road safety. An understanding of how social influence works can be deduced by looking at the knowledge generated through research by social science into the mechanisms of attitude and behaviour change in this area. Most research in the area of evaluating the success of public health initiatives of this kind indicates that no single approach is likely to produce significant or sustainable change. Multiple channels over time are needed to provide reinforcing messages that result in a change in social values and behaviour. This is an area that should foster further research into effective ways of preventing and reducing cyberbullying among young people.

There are, however, commonalities within the research literature in terms of perspectives around what is needed within schools, the types of interventions that should be developed and, how to deal with both bullies and victims. From the available evidence it appears that a holistic, long-term and wide ranging approach is likely to be most successful in addressing the issue of cyberbullying among young people although there may be particular intervention approaches that work better for some groups than for others. These approaches of course require a commitment from authorities in terms of time and money if they are to be implemented with success. Consistent and rigorous evaluation of intervention strategies introduced in schools and in the community can help to identify the most effective strategies and to ensure that what is being done is indeed effective. In addressing issues such as cyberbullying the wider context should also be kept in mind, such as how we as a society interact each other and how we model these behaviours for our children and youth.

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