A mixed methods approach to understanding cyberbullying:

A role for both quantitative and qualitative research

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Biographies

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A MIXED METHODS APPROACH TO UNDERSTANDING CYBERBULLYING: A ROLE FOR BOTH QUANTITATIVE AND QUALITATIVE RESEARCH

The study investigated the incidence and nature of cyber-bullying within six post-primary schools in Northern Ireland. A mixed methods sequential explanatory design was employed. The first, quantitative phase involved questionnaires with 757 year 8 and year 11 pupils (57.5% females, n = 435; 42.5% males, n = 322) ranging in age from 11 to 15 years (mean = 13.04 years). The second, qualitative phase involved focus groups with two groups of pupils (n = 14). Cyber-bullying was less frequent than traditional bullying but levels were concerning. Bullying via the use of videos on a mobile phone was perceived to be most harmful. Pupils suggested blocking messages / numbers as the best coping strategy and many cyber-victims did not tell anyone about their experiences. Discussions with the young people suggested that the generational gap in understanding and knowledge of communication media may be one reason why young people are not choosing to tell adults. Cyber-bullying is a complex and concerning form of bullying. The study illustrated the value of person centred approaches, together with quantitative methods, as a design for investigating bullying behaviour. Implications for future research and interventions are discussed.

Keywords: cyberbully, cybervictim, bully, victim, mixed method
INTRODUCTION

Communication technology has revolutionised the way in which we live our lives for the better; however, it is increasingly being used for maladaptive purposes. Cyber-bullying is a new complex, destructive form of bullying that has evolved in tandem with the rapid progression of communication technologies. One widely used definition describes cyberbullying as “. . . an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself” (Smith et al., 2008, 376). It can take many different forms, including flaming, denigration, harassment, impersonation, exclusion, cyberstalking and impersonation (Willard, 2005, 2006). Further adding to this complexity is the fact that unlike traditional bullying or face to face (f2f: Mc Guckin, Cummins, & Lewis, 2010) bullying, cyber-bullying allows for the anonymity of the bully, invades the young persons “safe places” such as their home (Mason, 2008) and has the potential for very large audiences.

It is common for f2f bullying and cyberbullying to be examined together, as the two behaviours are evidently related (Li, 2007: Livingstone, Haddon, Gorzig, & Olaffson, 2011). Many cyber-victims are also f2f victims and many cyber-bullies are f2f bullies (Smith et al., 2008; Livingstone et al., 2011; Li, 2007; Raskauskas & Stoltz, 2007). Whether victims of f2f bullying become “retaliators” (Mason, 2008) and cyber bully others in order to gain revenge has also been examined, with some studies reporting marginal evidence in support of this hypothesis (Smith et al., 2008; Ybarra & Mitchell, 2004), while more recent studies confirm that revenge can indeed act as a motive (Konig, Gollwitzer, & Steffgen, 2010). It is clear that bullying behaviour can transfer from one type to the other, making it practically impossible for the victim to escape.
Psychological Impact

The negative effects on those involved in traditional / f2f bullying have long been reported (Nansel, 2001; Oliver, Hoover, & Hazler, 1994). It is hypothesised that cyber-bullying may have a greater impact on young peoples’ psychological health due to its limitless availability and the greater imbalance of power created by the anonymity of the bully (Raskauskas & Stoltz, 2007). However, conversely, given that there is no physical hurt and that unpleasant messages can be deleted and blocked, the impact may be lessened (Slonje & Smith, 2008).

Through exploring narratives of adolescent cyber-victims, it was reported that cyber-bullying felt “. . . unnerving, demeaning, inescapable and unsafe . . .”, making the victims feel “. . . vulnerable and alone . . .” (Spears, Slee, Owens, & Johnson, 2009, p. 192). Indeed, those who are cyber-bullied, are more often excluded by their peers (Livingstone et al., 2011); however, it is not just the cyber-victims who are psychologically vulnerable, as more psychological difficulties are reported by both cyber-bullies and cybervictims than those who have never been involved in cyberbullying (Livingstone et al., 2011).

The type of electronic media used to bully can influence the impact caused, for instance, picture / video clip bullying is perceived as highly negative when compared to traditional / f2f bullying (Smith et al., 2008; Slonje & Smith, 2008). The perceived impact of harassing through the many different types of electronic media has been explored; however, the impact of bullying through social networking websites in comparison to other electronic media is relatively unknown. Further clarification is required to understand why the level of impact may change depending on the media used, and if by its very nature cyberbullying involvement is more harmful to young people than f2f bullying.
Coping Strategies

One of the main strategies for dealing with f2f bullying includes the “telling” strategy and is the most prominent strategy promoted in schools in the UK (Smith, Pepler, & Rigby, 2004). However, previous findings have indicated that telling someone is not the most popular strategy among cyber-victims (Smith et al., 2008; Li, 2006, 2007; NCH, 2005), with the most popular method to be technical coping such as avoidance-blocking messages or changing phone numbers / email addresses. Conversely, other large scale studies have reported that while many choose to cope technically by blocking the person, most cybervictims do tell; however, the person most commonly told is a friend, with fewer than half telling a parent or adult (Livingstone, 2011). Some indications as to why such trends exist are evident in the literature, such as the fear of having access to technology restricted (Brown, Jackson, & Cassidy, 2006) and the fear of retribution from the cyberbully (Cassidy, Jackson, & Brown, 2009).

The new nature of cyber-bullying raises the concerning issue of whether or not teachers and parents are aware of the types of cyber-bullying and if this is impacting on pupils’ willingness to tell adults (Slonje & Smith, 2008). We need to understand why young people are in some instances less inclined to report their cyberbullying experiences than their experiences of f2f bullying and when they do report, select a friend as their first choice of confidante. Gaining an insight into why these trends are emerging as they are could be essential in informing cyber-bullying awareness campaigns and policy.

Aims

The present study will add to the growing body of literature by employing mixed methods to investigate cyber-bullying. This new and interesting approach to the study
of cyberbullying will provide a multi-faceted insight into the associations between the
two behaviours, young people’s beliefs regarding impact, what coping strategies are
being used and why such approaches are preferred. In turn, it will provide implications
for policy development, both within the local and international context.

The current study:

- Investigates the associations between cyberbullying and f2f bullying;
- Explores the coping strategies for f2f bullying and cyber-bullying and why such
coping strategies are preferred;
- Examines the perceived impact of cyber-bullying in comparison to f2f bullying
and the reasons for such observations;
- Explores pupils’ suggestions for future practice in preventing and combating
cyberbullying.
METHOD

Research design
A mixed methods sequential explanatory design was employed (Creswell & Plano Clark, 2007). Implemented in two consecutive phases, the first, quantitative phase consisted of questionnaires which investigated incidence of cyberbullying and f2f bullying, coping strategies, and perceived impact. The second, qualitative phase involved focus groups to further explore the quantitative results in more detail.

Participants

Quantitative Phase
The target population were year 8 (first year) and year 11 (fourth year) pupils attending a sample of post-primary schools in Northern Ireland (NI). A total of 757 pupils (females: 57.5%, n = 435; males: 42.5%, n = 322), completed the questionnaire, representing a 64.7% response rate. The pupils ranged in age from 11 to 15 years with a mean age of 13.04 years (SD = 1.57).

Qualitative Phase
Two focus groups were conducted. The pupils were picked at random from a list of participants in each school. One focus group consisted of 8 pupils who were all attending the same urban mixed sex school. The second focus group consisted of 6 pupils who attended a different rural mixed sex school. The focus groups included a mix of year 8 and year 11 pupils.
Materials and Procedure

Quantitative Phase
A 41-item questionnaire was designed, which was an adapted version of two questionnaires originally patterned on the Olweus Bully/Victim Questionnaire (Olweus, 1996), used in a previous study in the UK (Smith et al., 2008). A small-scale pilot study was conducted and some changes to wording and structure were made as a result. All pupils were provided with a return envelope to enclose their questionnaires and a debriefing sheet, which included advice and information on how to seek help regarding bullying issues.

Qualitative Phase
The focus group schedules were semi-structured in format. An opening activity, using a picture sort was used with the pupils. Each focus group was recorded with a digital recorder and transcribed. All necessary measures were taken to protect anonymity and were clarified with the participants.

Analysis

Quantitative Analysis
Descriptive statistics in the form of frequencies were calculated for all item responses and categorical data were analysed using chi-square.

Qualitative Analysis
Focus group discussions were transcribed and whole data sets were analysed. Themes were identified in a predominantly deductive manner and were identified at a semantic level (Braun & Clarke, 2006). The significance of a theme was not only dependent on
prevalence within the data but also on the “keyness” of a theme in relation to the key research questions. The process of thematic analysis followed guidelines outlined by Braun and Clarke (2006). See Table 1 below.

<Insert Table 1 here>

The themes were discussed with a second rater who also coded the transcripts. Using Cohen’s kappa as a measurement of agreement (Landis & Koch, 1997), inter-rater reliability was agreed at 0.94. The coding frames were refined and altered again and thematic maps were drawn up.
RESULTS

Quantitative Findings

Associations Between f2f Bullying and Cyberbullying

Levels of involvement in f2f bullying were significantly higher for males, females and the total sample than involvement in cyber-bullying (55.1% compared with 16.5% [χ² = 19.22, df = 1, p < .001]); 49.7% compared with 21.5% (χ² = 28.31, df = 1, p < .01); and, 52.1% compared with 19.3% (χ² = 45.64, df = 1, p < .01) respectively. Many f2f victims were also cyber victims (χ² = 33.15, df = 1, p < 0.0001) and many f2f bullies were cyber bullies (χ² = 83.79, df = 1, p < 0.0001). It was also evident that many f2f victims were also cyber bullies (χ² = 6.91, df = 1, p < 0.01).

The associations between traditional bullying and cyberbullying were most evident within the “victims only” and “bully/victims only” groups. See Table 2 below.

<Insert Table 2 here>

Coping Strategies

When asked what were the best ways to stop f2f bullying, the most common responses chosen were “telling someone (parent/teacher)” (81.5 %) and “sticking up for myself without fighting” (56.1 %). In contrast, for cyberbullying, the most common responses were “blocking messages / telephone numbers / emails / website profile” (77.1%), and “telling someone (teacher / parent)” (74.3 %).

A comparison of victim’s coping strategies indicated that 20.9 % of f2f victims did not tell anyone about their experiences compared with 31.1 % of cybervictims. Of those f2f victims who did tell, the most common person told was a parent (53.9 %), followed by a friend (32.1 %), and then a teacher in their school (23.3 %). In contrast,
for cybervictims the most common person told was a friend (43.3 %), followed by a parent (34.2 %), with a teacher was the least common person told (5.8 %).

**Perceived Impact of Cyberbullying in Comparison to Traditional Bullying**

Whilst nearly one-tenth (7.8 %) of the young people felt that f2f victims would not be affected, 13.5% felt that cybervictims would not be affected by their experiences.

Impact factors for each media were calculated using the same procedure as Slonje and Smith (2008). The only type of cyberbullying to be attributed a negative impact factor, and thus perceived to be less harmful, was “text messaging” (-0.04). The highest impact factors were attributed to “videos / picture messages on a mobile phone” and “insults on a social networking website”.

**Qualitative Findings**

**Associations Between Traditional Bullying and Cyberbullying**

**Aggressiveness of bullies-use multiple means to target victim** was the first theme identified regarding why some young people are involved in both f2f and cyberbullying.

The young people also reported how the nature of cyber-bullying may provide a medium for the f2f victim to retaliate; this theme was labelled **Indirect retaliation**. One participant suggested that ‘if the person that’s hitting them or something they’d feel more confident to say something to them over a text message or over bebo than say it to their face’.

**Coping with cyber-bullying in comparison to traditional bullying**

It was reported that young people may be more likely to tell a friend about cyber-
bullying than a parent or a teacher as there is a **Generation gap in understanding and knowledge**, as ‘some teachers don’t really have computer sense…so they don’t really know about sites and stuff like that’.

In addition, it was clear that there are **multiple interactive factors** involved in the decision to tell someone. Sub themes identified within this over arching theme included: **Embarrassment and fear of a scene; fear of bullying worsening; characteristics of person influence choice; and victims’ perception.** The pupils spoke of telling ‘someone who you feel more comfortable telling’ and ‘there’s no point telling someone and they don’t know what to do’.

**Perceived impact**

The **Public and private nature of cyber-bullying** appear to be influential in the impact of cyber- bullying, as one pupil suggested ‘imagine if like half your class have seen it and you know they’d probably be laughing at you’. The data also reflected that the **Effective coping strategies for cyber-bullying** mediated impact as ‘you can’t block traditional bullying, like you can block a persons number or report a persons number, you can’t like just turn off the traditional bullying’. In addition, **Fear, social isolation and paranoia** was identified as a theme, as one pupils reported ‘they don’t know who to turn to like, because somebody they know could be doing it and somebody they don’t know could be doing it’.

**Pupils’ suggestions for tackling cyber-bullying**

The pupils spoke of the need to be listened to and to be involved in prevention and intervention approaches, as reflected by this pupil ‘yeah like to talk to the people of our age’. In addition, pupils spoke of the need to get parents involved ‘like some parents
mightn’t know all the in and outs of the internet so like show them how to block websites and all and to talk with their children’.  

DISCUSSION

The present study employed a mixed methodological approach to provide a multifaceted insight into the association between f2f bullying and cyberbullying, young people’s beliefs regarding impact, what coping strategies are being used, and why such approaches are preferred.

Summary of Key Findings

Supportive of previous research, statistically significant associations were found between f2f bullies and cyberbullies, f2f victims and cybervictims (Smith et al., 2008; Livingstone et al., 2011; Li, 2007; Raskauskas & Stoltz, 2007), and between f2f victims and cyberbullies (Li, 2007; Ybarra & Mitchell, 2004). The associations were most evident within the “victims only” and “bully / victims” groups. These findings suggest that some victims are being targeted by all means possible and that some bully / victims are involved in all forms of bullying behaviour, across both f2f and cyberbullying.

Given that bully / victims are particularly vulnerable to psychological difficulties (Forero, McLellan, Rissel, & Bauman, 1999), reporting more externalizing problems and internalizing symptoms than bullies and victims (Menesini, Modena, & Tani, 2009), such findings are concerning.

When asked about these trends in the focus groups, two key themes were identified. Firstly, the young people felt that bullies are generally “aggressive and will use multiple means to target their victim”. It was also felt that the “indirect nature of cyberbullying” provides an avenue for victims to “retaliate”, who may not do so otherwise in the traditional form (i.e., f2f).
The “telling strategy” is now well entrenched in schools in the UK (Smith et al., 2004); however, the findings of the present study show that more victims of cyberbullying failed to tell anyone about their experiences than traditional victims. For those who did tell, the most common person told was a friend, followed by a parent, with a teacher being the least common person told. Such trends were in contrast to traditional “f2f” bullying, with a parent being the most common person told, followed by a friend and then a teacher in their school, findings which are similar to those of some previous research (Smith et al., 2008).

Some researchers hypothesise that this may be because pupils feel adults are unaware of cyberbullying (Slonje & Smith, 2008). Indeed, the pupils in the focus groups felt that there was a “generational gap in understanding and knowledge” (between teachers, parents, and young people) and that this may be one of the reasons why young people are not choosing to tell adults. In addition, it became clear that when it comes to telling someone, there are “multiple interactive factors involved” in young people’s decision making; thus, indicating the need for policy provision to consider this multifaceted process.

In agreement with some previous research (Smith et al., 2008; Slonje & Smith, 2008), this study found that bullying through videos / picture messages on a mobile phone was perceived to be most harmful. The inclusion of social networking websites in the current study provides added insight, as bullying through social networking websites was perceived to be the second most harmful by the young people. Text message bullying was the only media to be perceived as less harmful, findings which are also in line with some previous findings (Smith et al., 2008; Slonje & Smith, 2008).

By exploring these trends further with the pupils, it became clear that both the “public and private nature of cyber-bullying” were influential when considering impact.
Pupils spoke of the embarrassment of others seeing messages and the perception that public messages are more “real”. Furthermore, the issue of anonymity arose during discussions which could lead to “fear, social isolation and paranoia”. In addition; however, the pupils felt that the “effective coping strategies” for cyberbullying, such as blocking numbers, may mediate impact and thus, explain why over 13% of the entire sample felt cybervictims would not be affected by their experiences.

Interestingly, the suggestions provided by pupils for the prevention and intervention of cyberbullying reflected a “systemic theme”, highlighting the importance of communication and positive relationships between pupils and staff, the desire to be actively involved in interventions and to have their parents involved; thus, identifying the need for systems wide co-operative approach.

Implications for Research, Policy and Practice

Research on prevention and intervention of cyberbullying is in its infancy (Grigg, 2010); however, the present study can provide some insights for such approaches. While a whole school approach is imperative (McClure Watters, 2011), preventative and interventive work should aim to involve the many ecologies of the young person’s development. Thus, with Ecological Systems Theory (Bronfenbrenner, 1979) in mind, it is essential that parents, the school, and the community communicate and co-operate with each other to develop and implement multi-level strategies.

Conclusions

While levels of cyberbullying are lower than f2f bullying, they are significant and concerning. The study design illustrates the value of person centred methodological approaches together with quantitative methods. The strengths and weaknesses of each
methodology offset those of the other, and the findings culminate to enhance understanding both locally and internationally, and provide a multi-faceted insight into cyberbullying.
REFERENCES


http://new.csriu.org/cyberbully/docs/cbcteducator.pdf

Table 1. Description of Thematic Analysis

Table 2. Associations between traditional bullying and cyber-bullying by individual categories of involvement
### Phase Description of Process

1. Data transcribed, read and re-read. Initial list of ideas noted.

2. Transcripts coded within and across the entire data set, collating data relevant to each code.

3. Exhaustive list of codes were collated and examined in relation to each per-identified area for exploration.

4. The titles for each area/section were refined and the codes and data extracts were collated and examined and re-examined to identify overarching themes. Ongoing analysis examined the relationship between themes, themes were refined and subthemes were developed.

   A draft thematic coding frame was developed and transcripts were coded using themes and subthemes. All extracts for each theme were re-read and evaluated to identify a coherent pattern.

5. The thematic coding frame was refined again to represent the essence of each theme and thematic maps were drawn up.

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Table 1. Description of Thematic Analysis
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<th>Category</th>
<th>Not cyber victim only</th>
<th>Cyber victim only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trad victim only</td>
<td>25.2% (n = 186)</td>
<td>5.6% (n = 41)</td>
</tr>
<tr>
<td>Not trad bully only</td>
<td>90.8% (n = 664)</td>
<td>2.2% (n = 16)</td>
</tr>
<tr>
<td>Trad bully only</td>
<td>6.0% (n = 44)</td>
<td>1.0% (n = 7)</td>
</tr>
<tr>
<td>Not trad bully/victim</td>
<td>84.3% (n = 625)</td>
<td>2.0% (n = 15)</td>
</tr>
<tr>
<td>Trad bully/victim</td>
<td>11.3% (n = 84)</td>
<td>2.3% (n = 17)</td>
</tr>
<tr>
<td>Not trad victim only</td>
<td>66.9% (n = 490)</td>
<td>2.9% (n = 21)</td>
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<tr>
<td>Trad victim only</td>
<td>29.9% (n = 219)</td>
<td>0.3% (n = 2)</td>
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