The prevalence of cyber bullying in higher education in the UK

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Empirical findings have demonstrated that cyber bullying in schools is a growing problem, but it is not clear whether the phenomenon exists in the higher education context in UK. An explorative study of two hundred and nineteen undergraduate and postgraduate students was conducted to examine cyber bullying in UK universities. It was found that close to 25% of students were cyber victims, while about 15% were cyber perpetrators during their studies. When sex was taken into account, no differences in victimization and/or perpetration were identified. Furthermore, possible associations between past experiences of school bullying and current higher education cyber bullying were investigated. The relationship between traditional school bullying and cyber bullying at university was found with cyber bullying or cyber victimization behaviour continuing in the higher education context. This concurs with current perpetrator/victim research findings within the school context (Smith et al., 2003). Data of students' internet usage and online behaviour are also presented and implications for interventions in higher education are discussed.

Keywords

bullying | *cyber bullying* | *cyber perpetrators* | *cyber victims* | *higher education* | *school bullying* | *perpetrators* | *victimization*

Introduction

Over the past two decades there has been a shift in the ways people interact and communicate. The availability of low cost mobile devices was the first step in adopting a new communication paradigm, which was developed due to the wide spread use of the internet and the growing access people have to it (Beran and Li, 2005). Research suggests that in general, electronic tools are viewed as the preferred means of communication by internet users (Schrock and Boyd, 2008). In addition, one strong feature is that internet users between the ages of 12 and 30 years tend to use internet and mobile communication tools as their primary means of communication (Patching and Hinduja, 2006; Mishna, Saini and Solomon, 2009). Paradoxically, these new ways of communication and interaction have resulted in the use of electronic communication to bully others, a pernicious behaviour referred to as cyber bullying.

It is generally accepted that whether individuals 'label' themselves as victims or perpetrators of bullying, the negative effects are devastating (Boulton and Underwood, 1992). These can range from insecurity, anxiety, loneliness, depression, low self-esteem, to more serious cases, which may ultimately result in suicide. Besides, what is more deplorable is that overall global estimates suggest that at least 5% of those in the primary and secondary schools aged between 6 and 16 years are bullied daily (Smith and Shu, 2000).

This paper seeks to examine the prevalence of cyber bullying in higher education. Research into cyber bullying in schools has accelerated in last ten years and has been established to be a global phenomenon (Mishna, Pepler, Cook and Wiener, 2010). This research will therefore, try to ascertain the scale of the problem in the higher education context in the UK.

Traditional Bullying

The traditional act of bullying (such as stealing, hitting, taunting, pranks, teasing and threatening) is an aggressive repeated behaviour intended to cause physical and/or mental harm and is usually carried out by a person or a group of people (Smith, Cowie, Olafsson et al., 2002; Kepenecki and Cincir, 2006). There is often an imbalance of power between the perpetrator and the victim. In a school environment, a typical victim is usually more anxious, insecure, sensitive and quiet. Whereas bullies have a strong need to dominate others and have a higher tendency towards violence than other children. Yet, understanding why some people bully and what makes others easier targets, or more vulnerable to bullies is considerably much more difficult.

Studies of bullying in school have indicated that personality traits exist in both perpetrators and victims that remain stable throughout childhood and adulthood (Perry et al., 1988; Glaso et al., 2007). This led Randall (1997) to suggest that those personality traits linked to bullying and victimization are to a large extent a byproduct of early childhood experiences which are associated to parenting styles and parent-child interactions. Such a view is strongly supported by Bandura's (1986) social learning theory and Skinner's (1953) operant conditioning theory. The claim being that behaviour patterns seen in adults are a reflection of childhood development through processes of reinforcement and modeling. If this is the case, that bullying at school results in social learning and modeling, can the same explanation be given to bullying in higher education or is bullying in higher education more dependent on the situation or context?

Cyber bullying in schools

An early definition of cyber bullying was given by Nelson (2003) who described it as a deliberate, repeated and hostile behaviour by an individual or group that is intended to harm others who are defenseless, through the use of information and communication technologies such as emails, mobile phones, text messages, instant messaging, social media (Facebook, Twitter, etc.) and web pages. Even though direct physical violence is not considered cyber bullying, it is still a serious hostile behaviour not unlike traditional bullying, with acts such as internet stalking, threats of physical violence, sexual intimidation and threats to the victim's well-being (Spitzberg and Hoobler, 2002).

A study examining the nature and extent of cyber bullying and how it is experienced by adolescents, was conducted by Li (2007). The study's participants were 177 seventh grade students from two urban Canadian schools. An important feature which led to the selection of these schools was that both were involved at the time in a large educational technology project which encouraged students to utilize information technologies within the schools premises and at home in order to enhance their studying strategies and social interactions. The study employed a 26-item questionnaire, which assessed students' cyber bullying related experiences.

The reported results showed that 14.5% of the students had used an electronic device to bully someone else while 25% had been victims of cyber bullying. Furthermore, it was reported that 31.8% of victims were cyber bullied by their peers, 11.4% by individuals not linked to the school and 15.9% faced cyber bullying via multiple sources. With regards to the frequency to which cyber bullying occurred, 43% of the perpetrators indicated that they had cyber bullied others less than 4 times, 30% reported four to ten times and 26% more than ten times. Remarkably, 60% indicated that they were cyber bullied less than 4 times, 18% about 4 to 10 times and 22.7% faced cyber bullying more than ten times. Females were particularly more likely to be victims (59%) than perpetrators (43.5%), while males were less likely to be victims (38.6%) but perpetrators (52.2%). The methods by which victims were cyber bullied were emails (22.7%), chat rooms (36.4%) and at times a combination of both plus cell phones (40.9%). On some occasions, perpetrators used multiple sources (55%) and less frequently emails (9%) or chat rooms (36.4%). (Li, 2007).

A very significant observation made by Li (2007), was that almost half of the victims had no knowledge of who was cyber bullying them. This highlights the problem of anonymity when dealing with cyber bullying. It is not only that anonymity allows perpetrators to be more hurtful and scathing but there is also the deficit of direct legislation against bullying online (Mishna, Saini and Solomon, 2009). The authors of the study in addition concede that there could be a perpetrator-victim cycle, which implies that cyber bullying perpetrators are more likely to be themselves victims of cyber bullying (Mishna et al., 2010).

The acknowledgment of cyber bullying as a pervasive phenomenon in schools has led researchers to investigate the possible psychological consequences for victims and perpetrators. Although studies on traditional bullying have shown that there are no major differences between victims and aggressors in their reported levels of depression, this has however, not been the case with cyber bullying. Cyber victims reported significantly higher levels of depression compared to traditional bullying victims (Wang, Nansel and Iannoti, 2011). Anonymity could however, account for the differences found.

A victim of cyber bullying may be faced with anonymous online harassment from a variety of sources, such as blogs containing false or real personal pictures/details, or the publishing of an untrue rumour on a micro-blogging page (e.g. Twitter) which can spread very quickly and be accessed or read by a great number of people. The defenseless victim of such an attack may feel isolated, helpless and experience depressive symptoms (Smith et al., 2008). There have been a few high profile apparent suicides linked to cyber bullying in the media recently. The *Irish Examiner*, on October 29th 2012 reported on the suicide of Erin Gallagher as a direct result of being bullied. *'She was only 13 years old and was found dead after telling friends on a controversial website that she was considering killing herself after being subjected to a vicious bullying campaign'* (O'Cionnaith, 2012 p.4).

While there is a plethora of research that has examined the prevalence of school cyber bullying and how it affects students' social life, psychological well-being and academic performance, the methods used have been mainly quantitative. This means that most of the studies are limited through overreliance on self-reports and perhaps use of inadequate measures to capture cyber bullying behaviour. Nonetheless, bullying is very individualistic and subjective, and can mean different things to different people. A different approach was therefore needed. A study that gave such a different perspective, was the one conducted by Mishna, Saini and Solomon (2009). They explored the students' own experiences of cyber bullying by employing grounded theory. Seven focus groups involving 38 students were used to collect the data. Some of the themes that emerged from the analysis were characterized as unique to cyber bullying. Bullying was deemed to have occurred if a student had experienced the perpetration on a particular site, during a predefined time and the cyber bullying was anonymous.

The subjective approach epitomized by Mishna et al., (2009) also found that cyber bullying can take place at any time even outside the school as long as a student had internet connection or access to a mobile device. Students considered such experience as unnerving and invasive. The authors concluded that by its nature, anonymity is what gives cyber bullying its power. Victims could therefore become trapped in a reinforcing cycle where the anonymity of the perpetrator leads to insecurity, low-esteem, feelings of anger and frustration, which in turn leads to further victimization (Mishna, Saini and Solomon, 2009).

Cyber bullying in higher education

While the phenomenon of cyber bullying in schools has been identified by numerous previous studies, the research of this pernicious behaviour in higher education has been extremely limited. One of the most comprehensive recent studies that has examined this behaviour in a higher education setting originated in the USA and was conducted by MacDonald and Roberts-Pittman (2010). They surveyed 439 college students with an average age of 22.97 years (SD= 6.62), 71.9% were females while 28.1% were males, some were undergraduate students (87%) and others were postgraduates (13%).

The study demonstrated that 21.9% of the participants were cyber victims, 8.6% were cyber bullies while 38% had known someone who had been a victim of cyber bullying in their college. Gender seems to be relatively immaterial with regards to cyber victimization (males (21.9%) vs. females (22%)) however males appeared to be more at risk of cyber perpetration (7.6% females vs. 11.4 males).

This report further highlighted that social networking services were the most prevalent methods used by cyber bullies since 25% of the victims reported being at the receiving end of cyber bullying through such methods. More than a fifth of those targeted (21.2%) reported that they had been cyber bullied through text messaging and/or voicemails communicated via their mobile phones. Instant messaging services (13.2%) and chat rooms (9.9%) were also identified as means of cyber victimization. A smaller proportion (6.8%) of victims was cyber bullied through posting on websites and blogs.

MacDonald's and Roberts-Pittman (2010) have reported other findings from their study based on correlation analysis. They revealed that traditional bullying was linked to all three cyber bullying experiences (victimization, perpetration, witnessing). This study indeed championed the notion that cyber bullying in the higher education context truly exists to the same extent as it does in schools.

Another recent study exploring the prevalence and characteristics of cyber bullying among university students was carried out by Turan, Polat, Karapili, Uysal and Turan (2011). In their study the researchers wanted to establish whether the behaviour existed in Turkish higher education institutions.

They recruited 579 undergraduate and postgraduate students (329 females and 250 males) to take part in their study. Their ages ranged from 18 to 30 years (mean age – 21.9 years; SD: 1.73). Participants were asked whether they had knowledge of a friend or acquaintance that had been harassed through electronic means and whether they too had been victims. A positive response led to a further question about identifying where the harassment took place (emails, mobile phones, etc.) and its frequency.

Turan et al. (2011) found that 74.8% knew someone who had been cyber bullied, while 56.1% reported being targeted by cyber bullies. A fifth (20.7%) identified the internet as the source of harassment, for 27.7% it was mobile phones and for 51.7% it was both the internet and mobile phones. With regards to the frequency of harassment, 14% responded that it happened once, 30% twice and 56% more than twice. As to whether victims knew the gender of their perpetrator, 54.5% answered that it was a male, 18% a female, 7% both male and female and 20.5% didn't know the gender of the bully. In this study there were significant gender differences in cyber victimization with more incidences reported by females (64.7%) than by males (45.4%).

Even though the study conducted by Turan et al. (2011) produced additional information regarding university students' experiences of harassment perpetrated through electronic means, it is not very clear whether the researchers managed to identify cyber bullying behaviour through their methodology. Self reporting of cyber bullying can easily distort bullying figures whether by over or under reporting. With this research, limitations lie within the scoring system used in the cyber bullying questionnaire. The researchers considered that a participant was a cyber victim even when they responded that it happened once and/or twice, when in fact one of the defining characteristics of cyber bullying is its repeated and frequent nature (Li, 2007; Nelson, 2003; Barkoukis and Panagiotou 2012). If a time frame (e.g. during the past month) had been given by the researchers, it would have been clearer whether the participants were reporting cyber victimization rather than just instances of online aggression or harassment.

In summary, the research on the phenomenon of cyber bullying in higher education is very new and already reported findings are not very extensive. Moreover, to date, there is no study exploring the behaviour of cyber bullying in higher education in the United Kingdom. There are indications of the phenomenon's existence as reported from media outlets. For example the very recent exposure of cyber bullying behaviour in the chat services of the Cambridge university's online library, which led the university authorities to shut them down (Smith, 2012) or the case of an 18-year old girl who was convicted and jailed for cyber bullying another university student through Facebook (Salked, 2009). Prior to committing suicide, the victim had received numerous death threats and continuous online bullying.

Previous studies examining school online bullying established that there are gender differences in victimization and perpetration. However, these results have not been borne out by studies examining these differences in higher education. It would also be interesting to investigate the claim that victims can become trapped in a vicious cycle where victimization leads to anger and the need to retaliate which in turn leads to perpetration and then to further victimization

The overall aims of the present study were:

- to establish whether cyber bullying is an existing phenomenon in higher education in the UK
- to explore students' behaviour in relation to current communication methods offered by information technologies (email, social media, internet etc.).
- to examine if there are gender differences in relation with cyber bullying victimization and perpetration.
- the examination of possible associations between past school bullying experiences and cyber bullying in higher education.

Method

Design: This was a cross-sectional study which examined variables related to past (school) and present (higher education) cyber bullying and victimization experiences. Frequency of bullying and victimization was also considered.

Participants: Two hundred and seventy-three undergraduate and postgraduate students were recruited online to participate in the study. Data from 54 participants was eliminated from the final analysis due to either being erroneously completed or showing missing values. The age range for the final sample (N = 219) was 18 to 36 years (Mean= 22.12, SD= 4.34). There were 121 males (55.3%) and 98 females (44.7%).

Materials: Participants completed a self-administered questionnaire, which assessed the following:

Socio-demographic factors. A questionnaire was constructed to gather the following demographic details and information: age, gender, year of study, use of electronic devices particularly access to a personal computer, internet usage and internet enabled mobile devices. Participants were also asked about their use of internet enabling communication techniques such as emails, social media profiles and whether they value the people they meet online and reveal their identity to them.

Cyber bullying and past bullying experiences questionnaire. A description of cyber bullying was available to the participants before they completed the questionnaire. The questionnaire followed the structure developed by MacDonald and Roberts-Pittman (2010). There were two parts to the questionnaire. Firstly, they completed two questions examining their experience of bullying at school: 'How often were you bullied in school?' and 'How often did you take part in bullying another student at school?' Secondly, cyber bullying experiences during higher education were assessed by answering the following questions: 'How often were you cyber bullied at university?' and 'How often did you cyber bully others at university?' Scoring was on a 4-point Likert scale (1, 2, 3, 4) with possible scores ranging from one (no/never) to four (several times) and higher scores indicating greater levels of perpetration or victimization.

Procedure: Ethical clearance was obtained from the university's ethics committee before conducting the study. The online questionnaire was posted in forums and sent in emailing lists. Participants entering the webpage of the survey were presented with a briefing form giving them information about the study as well as some information about the research and researchers. The second page, which was the consent form, was designed to obtain consent before the participants could proceed to the actual questionnaire battery. Therefore, if participants wanted to proceed and agreed to take part in the study, they could click an accept link and proceed, otherwise they could click a decline link, thus not have any access to the questionnaires.

It was made clear both in the briefing form and consent form that participation was voluntary, that no personal identification details were required and that even if they accepted and completed the questionnaire, they could withdraw at any time from the procedure by simply closing the survey page in their browser. Participants were also assured that they could not be identified from the data they provided and that the data would only be used for statistical purposes and be kept safely by the researchers.

Participants who agreed to take part in the survey and completed the questionnaires, were presented with a final page containing a debriefing form, information on how to contact the researchers as well as links to websites with information on cyber bullying and cyber bullying victims support services.

Statistical analysis: Pearson's product-moment correlation coefficient was used to examine the possible associations between past school bullying experiences and higher education cyber bullying. Between subjects independent t-tests were used to analyze sex differences.

Results

The main aim of this study was to examine whether cyber bullying exists in higher education. Besides identifying associations between previous school bullying and experiences of cyber bullying in higher education, the study also focused on investigating gender differences. Analysis was carried out using SPSS for Windows version 19.

Participants' socio-demographic characteristics: The first stage of the analysis yielded descriptive statistics which are presented in various tables. Table 1 shows the participants' level of study at university and that most of the students were studying at undergraduate level in year 2.

Table 1 – Participants' year of university attendance

Participants (N=219)	N (%)
1st year student	62 (28.3%)
2nd year student	89 (40.6%)
3rd year student	43 (19.6%)
Postgraduate student	25 (11.4%)

Table 2 reports the online communication services mainly used by students in higher education. The vast majority stated that they accessed the internet daily through personal computers and internet enabled mobile devices.

Table 2 – Internet access through personal computers and mobile devices

Internet Access	Participants (N=219)	
	Personal computer (%)	Mobile device (%)
Yes	204 (93.2%)	186 (84.9%)
No	15 (6.8%)	33 (15.1%)

When students were given the opportunity to describe their behaviour online, most responded that they did not use an alias and posted pictures of themselves in order to meet new people online. Table 3 gives the frequency data regarding students' online behaviour with regards to social media.

Table 3 – Participants' online behaviour in social media services

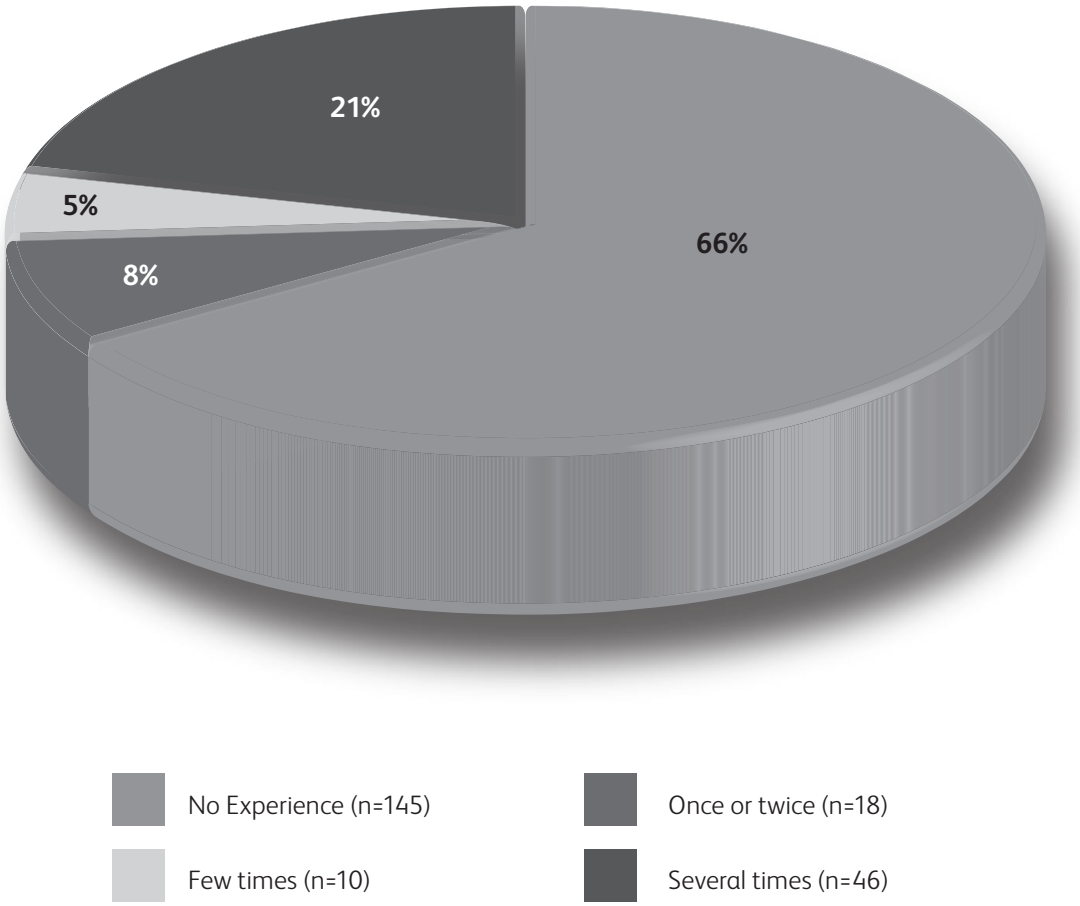
Online behaviour	N=219	
	Yes (%)	No (%)
Online profile	219 (100%)	0 (0%)
Real identity use	186 (84.9%)	33 (15.1%)
Pictures of themselves	198 (90.4%)	21 (9.6%)
Meeting people online	174 (79.5%)	45 (20.5%)

Cyber bullying prevalence in UK Higher Education: Table 4 indicates the frequency distribution of bullying victimization in higher education. It can be seen that at least a third (33.8%) of the students were subjected to bullying during their studies although 8.2% (once or twice) were due to occasional exposure. Data at this stage does not distinguish between genders in bullying victimization. Figure 1 illustrates the prevalence rates.

Table 4 – Cyber victimization experience

N=219	Participants (%)
Never	145 (66.2%)
Once or twice	18 (8.2%)
Few times	10 (4.6%)
Several times	46 (21%)

Figure 1 – Frequency distribution of cyber bullying in Higher Education in UK



Evidence from table 5 below shows the percentages of those students who confessed to having cyber bullied someone. This indicates that only a fifth (20.1%) had exposed others to bullying behaviour. This figure of perpetrators is much lower than that of those who had been at the receiving end of bullying behaviours.

Table 5 – Cyber bullying aggressive behaviour

N=219	Participants (%)
Never	175 (79.9%)
Once or twice	13 (5.9%)
Few times	12 (5.5%)
Several times	19 (8.7%)

Sex differences in cyber bullying behaviour: A series of independent t-tests were used to examine possible differences between males and females in being bullied or being a bully. The results show that there were no statistically significant sex differences with regards to cyber victimization ($t(217) = -1.77$, $p > .05$). Female students scored higher on the victimization scale (mean= 1.97, SD= 1.33) in comparison to their male counterparts (mean= 1.67, SD= 1.14). There were also no statistically significant sex differences in terms of cyber perpetration ($t(217) = .154$, $p > .05$). Male students scores were slightly higher (mean= 1.44, SD= 0.93) than those of female students (mean= 1.42, SD= 0.95).

Pairwise correlations between past school bullying and higher education cyber bullying behaviour: The data was analyzed by Pearson's product-moment correlation coefficients to examine possible intercorrelations between previous school bullying behaviour and cyber bullying experiences in higher education. Results showed that being bullied at school (victimization) was positively correlated with being bullied in higher education (cyber bullying victimization) ($r = .754$, $p < 0.001$). This indicates that a strong link exists between victimization in school and in higher education. Not surprisingly we identified a modest positive association between bullying at school and cyber bullying in higher education ($r = 573$, $p < .001$). Indicating that a person who was a school bully was likely to perpetuate this behaviour and act as a cyber bully later on in higher education (see table 6).

Table 6 – Correlation matrix for school bullying and higher education cyber bullying

N=219	1	2	3	4
1 Cyber bullying victim				
2 Cyber bully	–.30			
3 School bullying victim	.753*	.081		
4 School bully	.035	.573*	–.085	

*Significant at .001 (2-tailed)

Discussion

The main aim of the present study was to establish whether cyber bullying existed in UK universities. It was found that indeed cyber bullying was prevalent, with almost a quarter of the students confessing to being victimized while a significant proportion admitted to acting as cyber bullies. The results of this study also provide support for the view of a significant relationship between bullying at school and cyber bullying in higher education and similarly victimization at school and cyber victimization at university. In addition, no significant differences were found between male and female students in both roles of victimization and bullying. The lack of significant sex differences in this study can, however, be viewed as an important finding in itself. The results of this study do add to, and concur with previous research on cyber bullying and a more detailed discussion follows.

The rates of cyber bullying victimization found in the present study are comparable with previous research particularly that of MacDonald and Roberts-Pittman (2010), who explored prevalence rates among US college students. They showed that 21.9% of students faced cyber bullying, which is similar to the 25.6% rate reported in our study. However, MacDonald and Roberts-Pittman's (2010) study noted significantly lower rates (8.6%) of perpetration when compared to our figure (14.2%). A possible explanation for the differences found could be due to the differences in sex ratio of the studies. Our study employed a fairly balanced sex ratio (55.3% vs 44.7%) in comparison to MacDonald and Roberts-Pittman (2010) (e.g. 72% vs 28%). This therefore, could be a plausible explanation for the higher rates found in our study as males tend to be more aggressive than females.

The Turkish research (Turan et al. 2011) has also reported significantly higher rates (56.1%) of victimization. However, a study like this highlights the inconsistency of an individual's conception of bullying which could be compounded further by different cultural and societal structures. The responses to questions on bullying behaviour, in terms of being bullied or doing the bullying might be interpreted differently in some cultures. It is also worth noting that there were important methodological differences in the conduct of the studies. Turan et al. (2011) included single instances of cyber aggression in their total prevalence rate; whereas this was not the case with the present study as it included only repeated cyber bullying aggression.

Furthermore, it was hypothesized that due to women being characterized stereotypically (by some) as 'the weaker sex', there might be sex differences in relation with cyber bullying aggression and victimization. However, no such differences were found. Even though female students scored higher on the victimization scale and males higher on the aggression scale, these differences were not statistically significant. Could it be that victimization or perpetration does not depend on gender but rather on the personality of the individual? We discussed in the introduction that a typical victim had distinguishable personality traits such as more anxious, insecure, sensitive and quiet while a perpetrator was aggressive and domineering. Could personality lie at the heart of our lack of sex differences in our study? Nonetheless, these findings were not in accordance with empirical findings of school cyber bullying research, which maintain that females are significantly victimized more than males and vice versa for aggression (Li, 2007). Although research concerning prevalence of cyber bullying in higher education is still in its infancy, our failure to find sex differences in victimization and perpetration is supported by the results of MacDonald and Roberts-Pittman (2010).

Probably the most surprising outcome of this study was that there was a significant association between past school bullying behaviour and higher education cyber bullying experiences. Students who acted as bullies at school were more likely to repeat the behaviour at university. Unfortunately the phenomenon of victimization and perpetration is more widely researched in schools than in higher education. Research, particularly within schools, has identified bullying as being on a continuum (Solberg and Olweus, 2003). Our results however, resonate with those of others (such as; Li, 2007; Mishna, Saini and Solomon, 2009; MacDonald and Roberts-Pittman, 2010).

Suggested further research:

This paper did not seek to address the causes of cyber bullying but rather the prevalence of the phenomenon in the higher education context in UK. The study had several limitations which should be addressed if the research is to be advanced. The method used could have been greatly improved. Even though data regarding students' online behaviour was obtained, this was not examined as a result of cyber bullying. All participants had an online profile in a social media service like Facebook and 85% had associated this profile with their real identity. Furthermore, 90% of participants had posted pictures of themselves and approximately 80% were utilizing such services to meet other people online. This type of data however, offers valuable information in particular when taking into consideration the relationship between social media and cyber bullying. It would be advantageous for our understanding of the phenomenon to explore how and where it occurs.

Another significant limitation of the study was the employment of a cyber bullying questionnaire. Self-report questions are frequently criticized in research due to the chances of false statements. Some students might not have wanted to admit to being a bully or a victim. Therefore, bullying is highly subjective. The development of a psychometric tool capable of assessing online bullying and taking into consideration factors which have been raised by previous research, such as social intelligence, academic performance, perceived satisfaction of studies and anonymity among others, is strongly suggested. A note must be made at this point regarding anonymity. Even though it has been considered a defining characteristic of cyber bullying, it is not clear if that is still the case, since social media and in general our online life sees us stripped of it.

Individual and cultural differences should also be important aspects of future higher education cyber bullying research. Factors such as age, sex, intelligence, religion, sexual orientation, socio-economic status and nationality are extremely important if we want to understand how students in the UK, which has a diverse student population, are affected by cyber bullying, but it will also help us to put cyber bullying into context.

Further research could also investigate students' perception of cyber bullying and the impact of personality traits and social support as a coping strategy. Lastly we need to establish what cyber bullying is in today's terms and whether there is global acknowledgment of what behaviours constitute cyber bullying. Without obtaining this information it would be difficult to understand this pernicious behaviour and in consequence it will be futile to try and impose or propose policies to stop it.

Conclusion

Despite the problems encountered when conducting research into cyber bullying, it remains a very important area of investigation. From our results, it can therefore be argued that cyber bullying exists in UK universities. Furthermore, it was found that both male and female students were equally victims and/or perpetrators. The results also showed that past school bullying experiences are strongly related to higher education cyber bullying behaviour. Research on this topic is still in its infancy but it is a very significant aspect of students' perceived satisfaction with their studies, as well as emotional, even physical well-being. As such, further research is needed in order for us to understand the phenomenon and implement successful approaches to addressing cyber bullying in higher education.

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