The perception of the cyberbullying phenomenon among Estonian students: Comparison of boys and girls on the basis of cyberbullying criteria and types of behaviour

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Summary

Introduction

With the rapid change in forms of communication bullying through electronic devices has emerged. „Cyberbullying is 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, p. 376). This definition emphasises the three Olweus' (1999) bullying criteria (intentionality, repetition, and imbalance of power). In addition, it identifies the electronic environment where cyberbullying occurs. Electronic communication has its own peculiarities. On the one hand, communication in cyber context is entirely public in nature because it involves large numbers of people who are given the opportunity to witness, contribute, or fight against, to what is happening online (Kowalski & Limber, 2007). On the other hand, computer mediated communication creates the illusion of anonymity without difficulty because it is easy to create anonymous avatars and personas there (Kowalski et al., 2008; Kowalski & Limber, 2007; Shariff, 2008; Willard, 2007). To sum up, it is assumed that there may be some other criteria in addition to the Olweus' criteria, such as publicity and anonymity which may be more specific in the cyber context (Menesini et al., 2012; Menesini & Nocentini, 2009; Slonje & Smith, 2008).

Previous researchers have attempted to categorise different types of cyberbullying behaviour into a more compact list (Nocentini et al., 2010; Willard, 2007). On the basis of Willard (2007), Nocentini et al. (2010) summarised different categories of cyberbullying behaviour into four main typologies based on the nature of the attack: written-verbal behaviours,

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visual behaviours, impersonation, and exclusion. Nocentini et al. (2010) and Naruskov et al. (2012) have described these four typologies in greater detail.

Research results about cyberbullying in the context of gender differences are characterised by inconsistency. Many studies have come to the conclusion that girls are more involved in cyberbullying as victims (Dehue et al., 2008; Mesch, 2009; Smith et al., 2008), or they can be both victims and bullies (Beckman et al., 2013; Connell, 2014; Kowalski & Limber, 2007). On the contrary, Li (2006) found that boys are more involved with cyberbullying behaviours as bullies as compared to girls. In addition, some studies have not found any differences between boys and girls in this respect (Hinduja & Patchin, 2008; Patchin & Hinduja, 2006; Smith et al., 2008). All things considered, it can be further argued whether the different cyberbullying experiences of the boys and girls may be due to the fact that they perceive (or they have been taught to perceive) the virtual environment and the bullying that goes on there differently. Similarly, in the context of traditional bullying Smith et al. (2002) speculated that there may be differences on how bullying is perceived by boys and girls. The result of their research showed that there were no significant gender differences on how the term bullying is perceived by boys and girls (Smith et al., 2002). Nevertheless, this issue should also be examined in the context of cyberbullying because it is necessary to know whether there are differences on how boys and girls perceive cyberbullying behaviour to gain a deeper understanding of the phenomena and to provide preliminary input to definition and instrumentation development.

The aim of this study was to compare Estonian boys' and girls' perception of cyberbullying on the basis of the five cyber-bullying criteria (imbalance of power, intention, repetition, anonymity, and publicity/privacy) and four types of cyberbullying behaviour (written-verbal, visual, exclusion, and impersonation). This study aimed to address the following research questions:

1) What are the differences between Estonian boys' and girls' perception of the cyberbullying phenomenon in the context of five cyberbullying criteria?

2) What are the differences between boys' and girls' perception of the cyberbullying phenomenon in the context of four cyberbullying types?

Methodology

The sample consisted of 336 (163 girls and 173 boys) Estonian students from six basic schools and six secondary schools. The schools were chosen

on the *basis* of *convenience sampling method*. The age of the participants ranged from 11 to 17 years (M=14.04; SD=1.46). The data were collected through anonymous questionnaires distributed in the classrooms during a school day in between February and May 2011.

The questionnaire used in this study was developed within the framework of the European project COST Action IS0801 by working group one (see also Naruskov et al., 2012; Menesini et al., 2012). In the set of the 32 scenarios the presence and absence of five cyberbullying criteria were combined across four types of cyberbullying behaviour (see Table 2 and Appendix 1). Thus, in total there were 128 scenarios developed. Four versions of questionnaires were created; each included 32 scenarios divided equally between the four types of cyberbullying behaviour (see Table 3). The four versions together included the complete set of the scenarios and were administrated randomly to the participants. In the context of all presented scenario participants were asked to a) evaluate whether they considered the scenario bullying or not, and b) if they answered yes, the next step was to evaluate the seriousness of the scenario from the victim's point of view (*a bit serious, quite serious, serious, very serious*). The validity of the questionnaire was confirmed by the panel of European experts from COST ACTION IS0801 and the instrument was pre-tested. For further information see also Naruskov et al., 2012; Menesini et al., 2012. Firstly, scenarios 1–32 were analysed separately. Secondly, the scenarios were aggregated on the basis of the five cyberbullying criteria; the percentages of „yes, it is cyberbullying" were calculated with the scenarios with presence one of the five cyberbullying criteria. The aggregation process was repeated on the basis of the type of cyberbullying behaviour; percentages of „yes, it is cyber-bullying" were computed for each type of cyberbullying behaviour. In the context of severity, medians were calculated from the aggregate data. *Chi-square* test, Independent Samples T-Test, and Mann-Whitney U test were used in order to analyse the data.

Results and discussion

This study concentrated on Estonian boys' and girls' perception of cyberbullying. The data analysis separately for scenarios 1 to 32 revealed only two statistically significant differences (see Diagram 1). Girls evaluated scenarios 11 and 18 as cyberbullying more often than their male counterparts (see Appendix 1). This result was also supported by the data analysis with the aggregated data. More precisely, in the context of cyber-

bullying criteria we found no statistically significant gender differences on how the boys and the girls named scenarios as cyberbullying; the boys' and the girls' evaluations were similar all across five cyber-bullying criteria (see Table 5). The results were similar across the types of cyberbullying behaviour as well; the boys did not name any of the four types of cyber-bullying behaviour as cyber-bullying more often than the girls (see Table 7). These results are inconsistent with the previous research in the field of traditional bullying (Smith et al., 2002) which showed that there were no larger gender differences on how the term bullying was perceived by boys and girls. Since the research results about cyberbullying in the context of gender differences are characterised by inconsistency, the question arises whether the phenomenon is perceived similarly by boys and girls. Consequently, this topic is crucial when one wants to develop valid instruments to measure cyberbullying behaviour. Although *we must* be *cautious* about making *generalisations* from our results on larger populations, we may still conclude that our study results together with Smith et al. (2002) provide some assurance for scientists who are engaged in examining the phenomenon of cyber-bullying.

Significant gender differences were identified in terms of severity evaluations across cyber-bullying criteria and type of cyber-bullying behaviour. The data analysis separately for scenarios 1–32 revealed that the boys evaluated scenarios 9, 14, 15, 16, 17, 23, 28, and 31 more serious than the girls (see Appendix 1). In the case of aggregated data, the boys' evaluated scenarios with the presence of repetition, publicity, and anonymity criterion more seriously than their female counterparts (see Table 6). In the context of type of cyber-bullying behaviour the boys' severity evaluations were higher for the written-verbal scenarios (see Table 8). Previous studies have shown that cyber-bullying as an indirect form of bullying is more typical for girls and not typical for boys who engage in more as perpetrators of direct forms of bullying (Nansel et al., 2001). Given these considerations we may assume that for the girls the situations in scenarios were familiar and consequently not so serious. The boys' severity evaluations were higher because they are not accustomed to such behaviour. Consequently we may hypothesise that the boys who are engaged with cyberbullying behaviour as victims may feel devastated because of what is happening. These results are important inputs for the development of cyberbullying prevention and intervention programmes.

Keywords: cyberbullying criteria, types of cyberbullying, perception, gender differences

Appendix 1

Presence (Y) and absence (N) of the criteria for all 32 scenarios

Scenario	Intentio-nality	Repetition	Imbalance of power	Publicity	Anonymity
1	N	N	N	N	N
2	N	N	Y	N	N
3	Y	N	Y	N	N
4	N	Y	Y	N	N
5	Y	Y	Y	N	N
6	Y	N	N	N	N
7	N	Y	N	N	N
8	Y	Y	N	N	N
9	N	N	N	Y	N
10	N	N	Y	Y	N
11	Y	N	Y	Y	N
12	N	Y	Y	Y	N
13	Y	Y	Y	Y	N
14	Y	N	N	Y	N
15	N	Y	N	Y	N
16	Y	Y	N	Y	N
17	N	N	N	Y	Y
18	N	N	Y	Y	Y
19	Y	N	Y	Y	Y
20	N	Y	Y	Y	Y
21	Y	Y	Y	Y	Y
22	Y	N	N	Y	Y
23	N	Y	N	Y	Y
24	Y	Y	N	Y	Y
25	N	N	N	N	Y
26	N	N	Y	N	Y
27	Y	N	Y	N	Y
28	N	Y	Y	N	Y
29	Y	Y	Y	N	Y
30	Y	N	N	N	Y
31	N	Y	N	N	Y
32	Y	Y	N	N	Y

Comment. N – absence of criteria in the scenario, Y – presence of criteria in the scenario.