

## Co-occurrence of online and offline bullying and sexual harassment among youth in Sweden: Implications for studies on victimization and health a short communication

Heléne Dahlqvist<sup>a</sup>, Åsa Svensson<sup>b</sup> and Katja Gillander Gådin<sup>a</sup>

<sup>a</sup>Department of Health Sciences, Mid Sweden University, Sundsvall, Sweden; <sup>b</sup>Department of Health Sciences, Mid Sweden University, Östersund, Sweden

### ABSTRACT

Studies of co-occurrence of online and offline victimisation of bullying and sexual harassment and its associations to mental health outcomes among youth are scarce. To inform future study designs, the aim of this brief communication was to map co-occurrence of online and offline bullying and sexual harassment victimisation among adolescents. Data were collected in 2011 in nine schools in Northern Sweden,  $n = 1193$  (boys = 566; girls = 627). Absolute and relative frequencies were calculated to find combinations of victimisation: one, two, three, or four forms. Reflecting a picture of the early days of online victimisation, in total fifty seven percent (57%) of adolescents were victimised. Single occurrence victimisation was 21.2% (offline sexual harassment was most common irrespective of gender), showing that most youths were victimised in a co-occurrence of two or more forms. Seven percent (7%) were victimised by all four forms of victimisation. Offline sexual harassment victimisation was present in the most common co-occurrences. Directions for future studies of victimisation and its associations to mental health outcomes are discussed.

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In recent decades, a number of studies have been published of online as and offline bullying, and sexual harassment victimisation among young people [1–4]. However, studies of one single form of victimisation may lead to an underestimation of the complex patterns of victimisation that young people face, as well as an overestimation of the associations between a single form of victimisation and various health outcomes. The poly-victimisation literature has addressed this issue, and focusses on a range of forms of victimisation, such as violent and property crime (e.g. assault, sexual assault, theft, burglary); child welfare violations (child abuse, family abduction), the violence of warfare and civil disturbances; and bullying victimisation [5–7]. However, studies of the co-occurrence of online and offline victimisation are still scarce. One early example is [8], who concluded that there is a co-occurrence of on- and offline victimisation. There are some recent examples, e.g. [9, 10, 11, 12]. Even when both on- and offline victimisation are measured, sexualised victimisation has been lacking, (see e.g. [13]). When sexualised victimisation has been addressed, it has often been in the context of teen dating violence.

Paat et al. [14] have shown that there is a co-occurrence of different types of dating violence such as psychological control, emotional abuse and other types of sexual and non-sexual dating violence (cyber and physical) and that peer bullying and cyberbullying are risk factors for psycho-emotional dating violence.

With regards to perpetration, Leemis et al. [15] have shown that traditional and cyber bullying and sexual harassment co-occur.

In this brief report, we wanted to add to the emerging understanding of a more complex picture of victimisation to inform future studies of victimisation in youth. This is important not only to understand how various co-occurrences of on- and offline, non-sexualised and sexualised, victimisation is associated to outcomes in, e.g. health and academic achievement, but also to understand how different interventions to promote health can be affected by a complex pattern of victimisation.

### Aim

The aim of this short communication was to map co-occurrence of online and offline bullying and sexual

harassment victimisation among adolescent boys and girls.

## Methods

### Context

We utilised data from the Youth Health Development-project (YHD-project), a longitudinal study of health development in adolescents in Northern Sweden. The YHD-project was implemented in a municipality located in South Sápmi, of medium size (60,000 inhabitants), characterised by a diverse socioeconomic base, with a focus on tourism and small- to medium-sized enterprises. At the time of data collection, Swedish children started school in the fall term when they reached the age of seven, and attendance was compulsory for all children up to the age of 16. In the current study, grade levels seven to nine (ages 14 to 16) are referred to as secondary school.

### Participants and procedure

Data were collected by an electronic questionnaire administered in January 2011. All public schools (N = 9) and one of four independent secondary schools with students in grades seven to nine participated in the study. Verbal informed consent was obtained from parents as well as students. Students were informed about the aims of the questionnaire, and informed that they could withdraw from participation at any time. The electronic questionnaires were completed on computers while school was in session with a research assistant present in the classroom. The response rate of the total sample in grade seven to nine was 80.5% (n = 1193). All procedures performed in this study were in accordance with the ethical standards of the regional research committee and with the 1964 Helsinki declaration and its later amendments, and approved by Umea Regional Ethical Review Board [Ref. no.: 09–179 M].

### Measures

*Offline bullying* was measured by asking respondents: "It sometimes happens that other pupils tease, fight with somebody, or shut somebody out. Has that happened to you in the past 6 months?". The Likert-type response options were: "yes, most of the time"; "yes, several times"; "yes, a couple of times"; "yes, once"; "no, never". Pupils indicating that it had happened one or more times in the last six months were scored as being bullied = 1.

*The offline sexual harassment* index was derived from fourteen items previously used in 16, as well as in 17 relating to sexual harassment over the previous six months. An example of physical harassment was: being touched, grabbed, or pinched in a sexual manner; an example of public display: publicly comments made regarding your attractiveness or unattractiveness; And an example of verbal harassment/name calling: being called a lesbian, fag, or likewise. Pupils indicating that this had happened to them, at some point over the prior six months, were scored as being sexually harassed = 1.

*Online Bullying* was measured by three items addressing online experiences during the last six months [18]. Respondents were asked to indicate how often someone had called them names or, been otherwise mean; spread false rumours about them; threatened them, or had been aggressive towards them. Respondents that indicated one time, a couple of times, or many times, were coded as 1.

*Online Sexual harassment* was defined as requests to engage in sexual activities, and sexual talk, and the provision of personal sexual information, or requests to meet offline [18], and online sexual harassment was estimated based on four questions derived from 19, and 18, with reference to the last six months. However, we did not specify that such solicitation be by an adult. When pupils answered "at least once", or more, to any of the four questions, we considered this online sexual harassment and coded it as 1.

### Statistical analysis

Gender separate relative and absolute frequencies were calculated using the "Frequency" command in IBM SPSS Statistics 25. The "Select cases" command was used to filter out co-occurrence as needed to find four different combinations of victimisation: one, two, three, or four forms of victimisation.

## Results

As shown in Table 1, 57.3% (boys: 50.0%; girls: 63.8%) of adolescents were victimised to a lesser or greater extent in the current sample. Single occurrence victimisation was 21.2%, showing that most youths were victimised in a co-occurrence of two or more forms (36.0%, not shown in table). As also shown in Table 1, offline sexual harassment as a single form of victimisation was the most common occurrence in this sample, irrespective of gender (boys: 10.6%; girls: 10.2%). For boys, the second most common co-occurrence of victimisation was to be victimised in two forms: online bullying

**Table 1.** Absolute and relative frequency of victimisation.

Victimisation	Boys		Girls		Total	
	n (566)	%	n (627)	%	n (1193)	%
	Victimisation of one form of victimisation					
Online bullying	24	4.2	13	2.1	37	3.1
Online sexual harassment	1	0.2	20	3.2	21	1.8
Bullying	26	4.6	45	7.2	71	6.0
Sexual harassment	60	10.6	64	10.2	124	10.4
Total	111	19.6	142	22.7	253	21.2
	Victimisation of two forms of victimisation					
Online bully. + Online sex. harass.	8	1.41	11	1.75	19	3.03
Online bully. + Bully.	10	1.8	15	2.4	25	2.1
Online bully. + Sex. harass.	41	7.2	25	3.99	66	5.5
Online sex. harass. + Bully.	2	0.4	5	0.8	7	0.6
Online sex. harass. + Sex. harass.	10	1.77	24	3.83	34	2.85
Bully. + Sex. harass.	16	2.83	24	3.83	40	3.35
Total	87	15.37	104	16.59	191	16.0
	Victimisation of three forms of victimisation					
Online bully. + Online sex. harass. + Bully.	6	1.1	4	0.6	10	0.8
Online bully. + Online sex. harass. + Sex. harass.	25	4.4	56	8.9	81	6.8
Online bully. + Sex. harass. + Bully.	21	3.7	27	4.3	48	4.0
Online sex. harass. + Sex. harass. + Bully.	1	0.2	15	2.4	16	1.3
Total	53	9.4	102	16.3	155	13.0
	Victimisation of four forms of victimisation					
Online bully. + Online sex. harass. + Bully. + Sex. harass.	32	5.65	52	8.3	84	7.0
Total victimisation	283	50.0	400	63.8	683	57.3

and offline sexual harassment (7.2%). For girls, on the other hand, the second most common co-occurrence was three forms of victimisation: online bullying, online sexual harassment and offline sexual harassment (8.9%), closely followed by victimisation in all four measured forms of victimisation (8.3%). In the total sample, 7.0% were victimised by all four forms of victimisation, girls more often than boys (8.3% and 5.7% respectively).

The least common victimisation forms in boys were online sexual harassment as a single form of victimisation (0.2%), as well as the co-occurrence of three forms of victimisation: online sexual harassment, offline sexual harassment, and offline bullying (0.2%). Least common in girls was the co-occurrence of online bullying, online sexual harassment and offline bullying (0.6%).

## Discussion

The current data were collected in early 2011, and the results show a complex picture of co-occurrence of off- and online victimisation among youth. Arguably, 2011 can be seen as the early days of social media and mobile technology; Iphone was launched in 2007 and it was

possible to purchase it in Sweden the year after. In 2011, 50% of 16–24 year-olds in Sweden had an internet connection through a cellphone [20]. The world of social media in 2011 differed from the current digital landscape: Myspace was launched in August 2003, Facebook in February 2004, Instagram in October 2010, while Snapchat was launched in July 2011, i.e. our data collection predates the launch of Snapchat. Our results, therefore, show that even before the easily accessed and widespread social media use we see today, the intertwining of off- and online victimisation presents a complex picture. Ybarra et al. [21] has shown a similar picture of the early days of online victimisation. They found the prevalence of co-occurrence of victims of Internet harassment and unwanted sexual solicitation to be the same as in the current study: 3.1% compared to 3.0%. A third of the respondents in the current study were victimised in a co-occurrence of two or more forms. While in the current study, offline sexual harassment was the most common form of single occurrence victimisation, offline sexual harassment also seems to be the form of victimisation that most commonly co-occurs with other forms of victimisation in both genders. This is an important finding to add to the growing co-occurring victimisation literature. Offline bullying, on the other hand, showed an intermediate frequency as a single form of victimisation, but is present in the least common co-occurrences in both girls and boys. This seems to suggest that offline sexual harassment may be a stronger indicator of online victimisation than the well-studied phenomenon of conventional offline bullying. This is important knowledge, as peer victimisation on social media assumingly goes mostly undetected by adults. In this sample, girls reported overall higher frequencies of victimisation than boys. This is in line with [7], but contrary to a study from China [9].

As discussed, previously, the landscape of social media has changed considerably since the time of data collection. Phenomena such as unsolicited images of explicit sexual content seem to be a contemporary challenge [22,23] and we need to know more about how common it is among young people.

## Methodological considerations

Answering questions about victimisation can be sensitive, and it is possible that the prevalence of victimisation in this study is underestimated. The high response rate, as well as the data collection method, are however strengths of the data. Our definition of online sexual victimisation is different from that of [24], who stipulate that online USS must be perpetrated by an adult. There was no information available regarding the perpetrator

in our data, and the question was not framed in a way to exclude different types of perpetrators. As has been shown in a previous study [1], online sexual harassment was associated with offline sexual harassment in both genders, and with offline bullying in boys. This would suggest that these measures of online victimisation most likely capture peer victimisation as well.

The bullying measure used in the current study does not fit with definitions of bullying that include intent, harm and repetition, which is common in the literature [25]. The measure is based on the Swedish legal definition which does not stipulate repetition and in which bullying is defined as “degrading treatment” ([26]/06:38).

Our measure is designed as a behaviour-based self-report measure (in which specific aggressive or bullying-related behaviours are presented, and participants are then asked to report whether they experienced them as a victim). While the measure of online bullying is a several-item measure, offline bullying is measured with one single item about bullying. In previous studies, several-item measures have estimated higher prevalence of bullying than single-item measures [25]. This suggests that in the current study, the bullying prevalence may be an underestimation.

Another limiting factor is that by the time of the data collection, sexual and gender identity was not included. Sexual and gender minority youth are more likely to be victimised by these types of harassment [13].

We argue that the generalisability of these results, as far as patterns of co-occurrences are concerned, extends to adolescents in grades 7 through 9 in Sweden, particularly outside of the large metropolitan areas.

## Conclusions

It was more common for youth to be victimised by a co-occurrence of online and offline sexual harassment and bullying, compared to one single form of victimisation. Offline sexual harassment may be a red flag for online victimisation in youth, as this form of victimisation was present in the most common co-occurrences. This has implications for policy and practice in schools as school administrations and faculty need to understand that there is an obvious risk that the victimised pupil may be victimised online as well.

Besides confirming our findings with more recent data, future studies should focus on more advanced analyses of victimisation patterns among youth, e.g. Latent Class Analysis or similar methods. Furthermore, future studies should take into account victimisation co-occurrence when investigating victimisation

associations to a variety of outcomes, as well as effectiveness studies of different interventions. For example, an intervention targeting sexual harassment in school may have no effect on, e.g. mental health or academic achievement outcomes, if study designs do not account for a possible co-occurrence of online victimisation. In addition, as perpetrators may try to avoid adult view, it is unknown in the literature whether or not victimisation would migrate from offline to online, in response to interventions that address offline victimisation exclusively.

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## Author statement

**Heléne Dahlqvist:** Conceptualization, methodology, data curation, formal data analysis, interpreting of results, writing-original draft preparation; **Åsa Svensson:** Conceptualization, methodology, interpreting of results, writing- reviewing and editing; **Katja Gillander Gådin:** Conceptualization, data collection, methodology, interpreting of results, writing- reviewing and editing

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