Traditional and cyber victimization

Emotional problems and perceived teacher support

by

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List of Figures

List of Tables

Acknowledgements

Finally, seven years and three childbirths after starting on this adventure my fifth child as I like to call it has finally arrived. Although it have been tough at times, the motivation has always been there as the goal of this thesis is to present the voices of children who have experienced traditional and cyber victimization. In the meetings with the children who have experienced victimization I became aware of that when a child is bullied it is not only the child who is suffering, but it affects the whole family. I am very grateful to the children, but also their parents for letting them share some of the most difficult experiences in their lives.

I would like to thank my supervisors for their great support and patience. Erling for being the wise man that he is, letting me try to find my way although it is not always the right way. Hildegunn for showing me the importance of taking the time and show me that this work also has been important to present internationally. A big thanks also goes to Thormod Idsøe for helping out with his eminent statistical skills, Gunn-Britt Eikjok Andreassen and Bente Bakken for assisting with performing the interviews. A great thanks also goes to my friends and my fantastic colleagues in the Norwegian center for learning environment and behavioral research in education, thank you for making this long road easier and for making me feel inspired and appreciated. I also wish to thank my Irish colleagues in the National anti-bullying center, Mona, James & Liam. Thank you for making the stay in Ireland such a good one, both academically and personally.

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Summary

Background: The lives of children in school is rapidly changing and their off-line and on-line lives are becoming more and more interwoven, this is also making the field of bullying more complex. Although bullying is a field that has been studied for quite some time, new technology is creating new challenges. There is still a need to know more about the possible emotional problems traditional and cyber victimization has on the students experiencing it. Knowing how it affects them is however not enough as it is also important to know what the teacher could do to make the situation better for these students when the bullying has happened. On this background, the current thesis attempts to highlight the different emotional problems detected between students having experienced traditional and / or cyber victimization, and to explore these consequences in depth, in addition to shed some light on how the class teachers' response is perceived when the bullying has happened.

Aims: The primary aim of this thesis was to contribute to the knowledge and theory building regarding the emotional consequences of traditional and cyber victimization and the importance of the authoritative class teacher in the intervention of bullying cases. A sub aim was related to practical implications and covers helping teachers in their practical work better recognize different emotional symptoms in addition to making them aware of the importance of the authoritative class teacher and protective control when intervening in cases of bullying.

Methods: Paper 1 builds on data from questionnaires from the nationwide school environment study conducted by Center for behavioral research in Norway in 2008. The data were collected using self - reported questionnaires, 3046 students participated in the study. For analysis SPSS software was initially used. Further latent variables in Structural Equation Modeling (Mplus) was used for investigating the relation between victimization and emotional problems. Paper 2 and 3 builds on qualitative data from 10 semi structured individual interviews performed both in Norway and Ireland. All the respondents had experienced traditional victimization and many of them also cyber victimization. The sample consisted of 10 cases that were reported closed to either the Norwegian centre for learning environment and behavioral research in education (NSLA)[1], University of Stavanger or the National anti-bullying research and resource centre, Dublin City University.

Results: The results in paper 1 showed a stronger association between cyber victimization and symptoms of anxiety than between traditional victimization and symptoms of anxiety. There were also a stronger association between traditional victimization and symptoms of depression than between cyber victimization and symptoms of depression.

[1] In the process of becoming a national resource center in 2013 the research center changed name from Center for behavioral research to Norwegian Center for Learning Environment and Behavioral Research in Education.

The results in paper 2 showed differences regarding descriptions of symptoms of post-traumatic stress for those respondents having experienced only traditional and those having experienced both traditional and cyber victimization. The respondents having experienced both traditional and cyber victimization where the only ones reporting trouble sleeping, experiences of fear outside school and behavioral avoidance also outside school.

The findings in paper 3 showed that none of the class teachers were perceived as authoritative by the respondents, i.e. high on both warmth and control, during the time the respondents were bullied.

Conclusion: Both the findings in paper 1 and 2 points in the direction of cyber victimization causing more symptoms of anxiety than traditional victimization. The reasons for these results are yet to be investigated in future studies, however as cyber victimization often includes the aspects of anonymity and publicity, these could be contributing to the victim reporting more anxiety when having experienced cyber victimization. To reduce the experienced anxiety it is suggested that the teacher in bullying intervention needs to demonstrate an authoritative teacher style, which is found in paper 3 to be absent. In addition to emphasize the importance of showing warmth and control, the theoretical concept of *protective control* is introduced.

List of papers

The following three papers are included in this PhD thesis:

Paper 1: Sjursø, I. R., Fandrem, H., & Roland, E. (2016). Emotional Problems in Traditional and Cyber victimization. *Journal of School Violence*. 15(1), 114-131. https://doi.org/10.1080/15388_220.2014.996718

Paper 2: Sjursø, I. R., Fandrem, H., & Roland, E. (2019). "All the time, every day, 24/7". A qualitative perspective on symptoms of post-traumatic stress in long lasting cases of traditional and cyber victimization in Norway and Ireland. *International Journal of Bullying Prevention*. https://doi.org/10.1007/s42380-019-00024-8

Paper 3: Sjursø, I. R., Fandrem, H., O'Higgins Norman, J., Roland, E. (2019). Teacher authority in long lasting cases of bullying: A qualitative study from Norway and Ireland. *International Journal of Environmental Research and Public Health*, 16(7), 1163. https://doi.org/10.3390/ijerph16071163

Structure of PhD thesis

Chapter 1: Introduction.

Chapter 2: Theoretical framework.

Chapter 3: Methods.

Chapter 4: Summary of results.

Chapter 5: Discussion.

1 Introduction

In the morning, I've said, Oh, I'm feeling dreadful and all this kind of stuff. In a way you are, but then you aren't. You are able to face it the next day if you take one day off. It's a sickness that people don't understand, but it's still a sickness. (Katherine, 17)

When bullying is at its worst, Katherine needs a break from school. Katherine is not the only one, struggling with emotional problems resulting from victimization.

The vision of this thesis is to give a voice to the children and adolescents like Katherine, who have experienced traditional and cyber victimization, and to present, from their perspective a picture of the complexities stemming from having experienced victimization for a long time. This in terms of what it can feel like, how it affects their thinking and way of life and how they perceive support from their teacher in dealing with the bullying.

1.1 Background

The growing interest in research on bullying began with Dan Olweus studying traditional bullying in the early 1970s. Olweus published the first results on the topic in 1973 in Swedish (Olweus, 1973). Dan Olweus and Erling Roland introduced the first definition of bullying in 1983. Bullying was described as *a repeated negative act, done by one or several against one who cannot defend her or himself* (Olweus & Roland, 1983).

The first international conference on bullying was arranged in Stavanger, in 1987 (Munthe & Roland, 1989). Since then, the network and research on traditional bullying have gradually been established both in Norway (e.g., Fandrem, Strohmeier & Roland, 2009; Olweus, 1993; Roland,

1999; Roland & Idsøe, 2001) and internationally (e.g., Bauman & Del Rio, 2006; O'Moore, 1989; Pepler & Craig, 1995; Salmivalli, Lagerspetz, Björkqvist, Österman & Kaukiainen, 1996; Smith & Sharp, 1994). Evolving technology has also had an impact on research about bullying, and since the early 2000s, research on cyberbullying has rapidly increased (e.g., Menesini et al., 2013; Slonje & Smith, 2008; Ybarra and Mitchell, 2004). In October 2008 the COST Action IS0801: *Cyberbullying: Coping with negative and enhancing positive use of new technologies, in relationships in educational settings* was established. Led by Professor Peter Smith, this undertaking gathered researchers from 28 European countries and led to at least four books and five special journal issues on the topic of cyber bullying (Smith, Steffgen & Sittichai, 2013).

While traditional bullying involves face-to-face interactions, cyberbullying happens via technology, e.g., mobile phones. A Norwegian national study shows that only 1 % of children and adolescents between the ages of 9 and 18 years do not have a mobile phone (The Norwegian Media Authority [NMA], 2018). The same study reports that nine out of ten children between the ages of 9 and 18 years use one or several social media platforms. The use of social media increases with age. From the age of 12 years for girls and 13 years for boys, very few individuals have no access to or do not use social media (NMA, 2018).

Off-line and on-line life are currently interwoven. One extreme example from Norway is a son planning the murder of his father in an Internet forum before performing it. He gave everyone in the forum information about how, when and where he was going to murder his father. Several of the forum members contributed to the planning, giving tips on how to commit the murder and asking for updates as soon as it was accomplished. 23rd of December 2018, the son murdered his father, at the exact time and using the same method he had previously announced online.

This incident illustrates how the line between life off- and online is often indistinct and how the two worlds are intertwined. As children and adolescents currently spend much of their time online socializing with other people, it is also natural that social conflicts and bullying infiltrate social media and vice versa.

The use of digital media in bullying also involves two central aspects that are suggested to make cyber victimization even more complex and difficult to handle than traditional victimization: *anonymity* and *publicity*. Research shows that the possibilities of anonymity in digital media increases feelings of powerlessness and frustration (Dooley, Pyzalski & Cross, 2009; Slonje & Smith, 2008). In addition, studies show that *public cyberbullying*[2] is defined as the most severe type of cyberbullying (Menesini et al., 2012) because of the stress involved in worrying about what others will think (Nocentini et al., 2010). In studying the impact of different types of cyberbullying, Slonje and Smith (2008) found that picture/video clip bullying had a high impact factor. The most common reasons respondents gave for this were the large audience and the concreteness effect. Some respondents also mentioned the fear of not knowing who had seen the picture/clip.

With the use of new technology, the venues and methods used for bullying have expanded, and it is therefore important to examine if this new development also contributes to changes in emotional problems related to bullying.

In addition, it is important to examine how the students who have experienced traditional and/or cyber victimization perceive support from their class teacher in dealing with their situation. This examination might

[2] Public cyberbullying refers to bullying where a potentially large audience is involved. For example, SMS and MMS sent to a larger audience, or bullying taking place in public forums or by sharing pictures or videos through social media. (Nocentini et al., 2010).

shed some light on an important aspect, namely, bullying intervention measures.

The thesis consists of three papers concerning traditional and cyber victimization related to emotional problems and perceived class authority. The figure below shows the themes of the different papers included in the thesis.

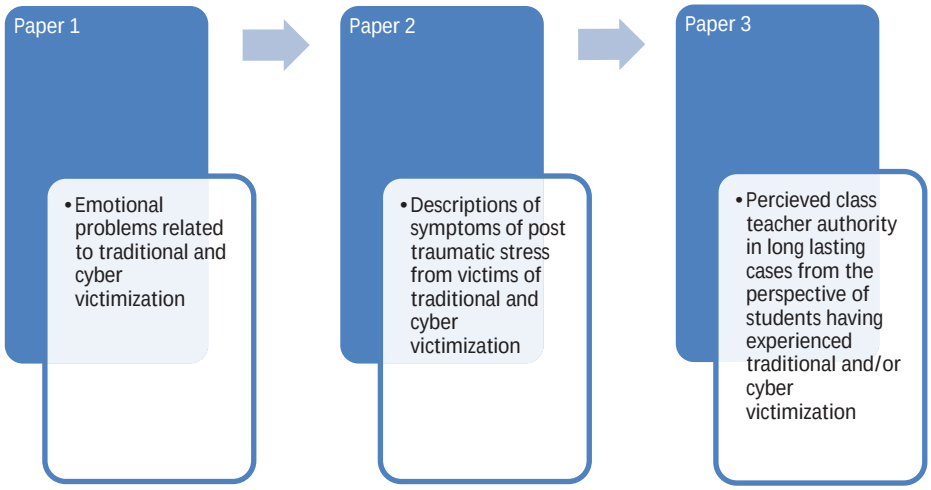

Figure 1 An overview of the papers and their topics.

1.2 Research aims

The *primary aim* of this thesis was to contribute to knowledge and to theory building regarding 1) the emotional problems of traditional and cyber victimization and 2) the importance of teacher support in intervention in bullying cases.

A sub - *aim* related to practical implications was to help school personnel recognize emotional problems related to different forms of victimization and to identify some principles that are useful to ordinary class teachers in assisting bullied students.

2 Theoretical framework

The first part of this section presents the definitions, prevalence and emotional problems of traditional and cyberbullying in addition to arguing that bullying could be a traumatic experience. In the second part, a theory on the authoritative teacher style is presented.

2.1 Bullying

2.1.1 Definition issues

There is an ongoing discussion about whether cyberbullying should be defined based on the definition of traditional bullying or if it should be defined differently (Menesini et al., 2013). Traditional bullying is usually defined as *a repeated aggressive act perpetrated against someone who has difficulty defending themselves* (e.g., Olweus & Roland, 1983; Smith, 2005; Sullivan, 2011; Olweus & Limber, 2018). This definition is based on three main criteria:

- an aggressive act
- that is repeated, and
- directed against a less powerful part.

This definition does not specify whether the form the act takes is traditional or cyber.

Cyberbullying could be defined 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 himself or herself"* (Smith et al., 2008, p. 367). In addition to specifying the electronic forms of contact, this definition also emphasizes that the act is intentional.

There is a current debate among researchers regarding whether the criteria used in the definition of traditional bullying are also relevant in describing cyberbullying. This will be elaborated below.

Intention

Most researchers understand bullying to be a subtype of aggressive behavior, mainly proactive aggression (e.g., Fandrem et al., 2009; Roland & Idsøe, 2001; Smith et al., 2008), therefore, the intention to hurt is implicit in the bullying concept (Buss, 1961). However, there is a debate as to whether an intention to hurt is necessarily present in cyberbullying (Menesini et al., 2013).

Menesini et al. (2013) conclude that the intention criterion must be included when defining cyberbullying. Without intent, bullying, could in some cases, be perceived as a joke for example (Nocentini et al., 2010; Vandebosch & van Cleemput, 2008). In addition, a recent study by Alipan, Skues, Theiler & Wise (2020) finds that the intention to hurt is described as a necessary part of the definition of cyberbullying from the perspectives of perpetrators, victims and bystanders.

Power imbalance

There is an ongoing discussion regarding the use of the terms cyberbullying versus cyber aggression (e.g. Finkelhor, Turner & Hamby, 2012; Grigg, 2010; Langos; 2012; Olweus & Limber, 2018; Pyzalski, 2012; Smith, del Barrio & Tokunaga, 2013). Cyber aggression can be defined as *"an intentional harmful behavior against another person using electronic technology (computer, etc.) for communication (text images)"* (Smith, del Barrio & Tokunaga, 2013, p. 18). As cyberbullying could be seen as a subset of cyber aggression. It is argued that power imbalance is one of the criteria that distinguishes cyberbullying from cyber aggression (Smith, del Barrio & Tokunaga, 2013).

What appears to be somewhat different in bullying in the cyber context, compared to bullying taking place in the physical arena is what may constitute an imbalance of power (Menesini et al., 2013). Imbalances in information and communications technology (ICT) literacy (Smith, Steffgen & Sittichai, 2013; Vandebosch & Van Cleemput, 2008; Ybarra & Mitchell, 2004), different social statuses within the virtual community (Hinduja & Patchin, 2007; Smith et al., 2013), the aspect of the anonymity of the bully (Vandebosch & Van Cleemput, 2008; Smith, et al., 2013) and cyber space making it more difficult to remove or avoid material such as pictures or comments (Dooley, Pyzalski & Cross, 2009) are all suggested as reasons for the imbalance in power. Taking all these suggestions into account in terms of what might cause an imbalance of power in the cyber context, Menesini et al. (2013) concluded that a power imbalance is also an important criterion in defining cyberbullying. However, it is still a discussion if the criteria for power imbalance need to be included in the definition of cyberbullying. The use of digital media makes the situation even more complex, as it can sometimes be difficult or impossible to locate the perpetrator (Finkelhor, Turner, Hamby, 2012).

Repetition

Issues related to the criterion of repetition in cyberbullying must be studied more thoroughly according to Menesini et al., 2013. The challenge of repetition in the cyber context is that a single act can be repeated by someone else and therefore could repeat victimization, albeit without the contribution of the initial perpetrator (Dooley et al., 2009; Menesini & Nocentini, 2009; Smith, 2012). From the victim's perspective, the perpetrator does not have to repeat the act several times for cyberbullying to be the result, as, e.g., the victim may read one text message meant to harm several times (Menesini et al., 2013). O'Moore (2014) states that as a single cyber-attack has the potential to be seen by many in an indefinite time span, this constitutes repetition for the victim. Furthermore, several authors state that if the criterion of repetition is not

included in the instruments used for measurement, the act cannot be defined as cyberbullying (e.g., Slonje et al., 2013; Ybarra et al., 2012). It could, however, be defined as cyber aggression according to, for example, the definition of cyber aggression presented by Smith, del Barrio and Tokunaga, (2013).

Conclusion

Olweus and Limber (2018) emphasized the importance of measuring the cyberbullying phenomenon in a bullying context in future research, so that one is able to ensure that the findings related to "(…) cyberbullying are not confounded with the findings on general cyber aggression or cyber harassment" (Olweus & Limber, 2018, p. 142). The criteria of power imbalance and repetition could be argued to help distinguish cyberbullying from other types of cyber aggression, as not all cyber aggression is cyberbullying. Given the research background presented above, this study includes cyberbullying under the broad concept of bullying.

2.1.2 Prevalence of traditional and cyber victimization

Prevalence of victimization is commonly understood as the percentage of individuals who is bullied. When this percentage is reported, it is important to know how bullying has been defined, the time span for registration and how serious the victimization must be to be registered. Seriousness is commonly defined by how frequent the episodes are, for example 2-3 times a month and more often. I addition, it is important to know the age of those investigated, since the percentage is related to age, see below.

As a reference for our own study, results from other central studies in Norway concerning prevalence are reported below.

The Norwegian annual national study

The Norwegian annual national study finds that 4.6 % of pupils between the ages of 10 and 18 report being traditionally bullied two or three times or more per month. In this study, bullying is defined in the survey as *"repeated, negative actions from one or several toward someone who has problems defending oneself. Bullying could be name calling, teasing, exclusion, backstabbing, hitting, pushing or shoving"* (Wendelborg, 2019, p. 2). Regarding the prevalence of cyber victimization, the results from this survey show that 1.9 % of respondents say they have been cyberbullied at least 2-3 times a month (Wendelborg, 2019). Cyberbullying is defined in the survey using the original definition of bullying, which states that *cyberbullying is bullying via electronic means* (Smith et al., 2008).

Comparing the prevalence of traditional and cyber victimization demonstrates the importance of having a common definition within a single study and among studies.

The Health Behavior in School - aged Children study

The Health behavior in School-aged Children [HBSC] 2013/2014 study reported higher numbers of traditional and cyber victimization; however, compared to other countries the numbers in Norway were lower.

In this study the informants are presented with a definition of bullying before answering the questions regarding this. This survey refers to the definition of Olweus (1996): *"we say a student is being bullied when another student, or a group of students, say or do nasty and unpleasant things to him or her. It is also bullying when a student is teased repeatedly in a way he or she does not like or when he or she is deliberately left out of things. But it is not bullying when two students of about the same strength or power argue or fight. It is also not bullying when a student is teased in a friendly and playful way"* (Inchley et al., 2014, p. 197).

Data from three different age groups were presented: 11, 13 and 15 years. In the sample aged 11 years, 7 % of the girls and 9 % of the boys reported traditional victimization at least two or three times a month in the past couple of months. In the sample aged 13 years, 6 % of the girls and 7 % of the boys reported having experienced traditional victimization. In the sample aged 15 years, 5 % of the girls and 4 % of the boys reported having experienced traditional victimization (Inchley et al., 2014).

To measure cyberbullying, the informants were asked *"how often they had been bullied through someone sending mean instant messages, wall postings, emails and text messages, or had created a website that made fun of them"* (Inchley et al., 2014. p. 207). In addition, there was an item regarding posting pictures online without permission (Inchley et al., 2014).

In the sample aged 11 years, 2 % of girls and 1 % of boys reported having experienced cyber victimization at least two or three times a month. In the sample aged 13 years, 2 % of the girls and 3 % of the boys report having experienced cyber victimization. For the sample aged 15 years, 3 % of the girls and 1 % of the boys report having experienced cybervictimization (Inchley et al., 2014).

The EU Kids online study

The EU Kids Online study for 2010 finds that 9 % of Norwegian children between the ages of 9-18 has experienced traditional victimization within the last twelve months (Livingstone et al., 2011). The numbers for the Norwegian part of the EU Kids Online study in 2018 reveals that as many as 25 % of Norwegian children between the ages of 9 and 17 years have experienced traditional victimization within the last twelve months. The definition of the negative act presented in the 2018 survey states that, "*sometimes children or teenagers could say or do hurtful or nasty things toward others, and this can, for instance, happen many times, on different days for a period of time. This could be to tease someone in a*

way they don't like; to hit, kick or show; or to isolate someone. When people are hurtful or nasty in this way, it can happen face to face; using a cellphone (text messages, conversations or video); or on the Internet (e-mail, instant messengers, social network and chatrooms)" (Staksrud & Olafsson, 2019, p. 35).

In EU Kids Online (2010), 8 % of Norwegian children report being bullied online within the last 12 months (Livingstone et al., 2011). However, 15 % of the Norwegian children in the 2018 study report being bullied online within the last 12 months (Staksrud & Olafsson, 2019). In the EU Kids Online 2010 study the researchers interpret cyberbullying as: *"someone being mean or hurtful to you different places on the internet, sending messages and pictures"* (Livingstone et al., 2011, p. 9). Although this global survey offers a definition, it does not mention the concept of cyberbullying, but uses "*online hurtful behavior"* instead. Thus, less serious behavior than bullying is also included in what the authors call bullying or cyberbullying in the EU Kids Online questionnaire.

Possible explanations for the different results

One explanation for the disparity in the results between the studies could therefore be the different content of the measured behaviors. While the National Norwegian study and the HBSC study uses the concept of bullying and defines it in the questionnaire, EU Kids Online claims to use a definition of bullying, but offers a much wider definition that does not include the term 'bullying'.

Another explanation for the differing results could be different cutoff points used in addition to how the questions are formulated regarding time span. The National Norwegian study and the HBSC study uses a cutoff of 2-3 times a month or more often. The EU Kids Online study was however reporting the prevalence regarding all children who reported being bullied "within the last twelve months". This meaning

that pupils who have been bullied less than 2-3 times a month in the national Norwegian study and the HBSC study would not be reported, however in the EU kids online study all pupils having experienced being bullied within the last year independent of how often would be registered.

In addition to factors regarding the measurement instruments, other factors that might affect the result are differences regarding participant age. The EU Kids Online study operates with the age span of 9-18 years, the Norwegian annual survey with an age span of 10-18 years, and the HBSC study measure participants at the ages of 11, 13 or 15 years. With continuous technological development, another possible factor that might affect the results is ICT penetration and changes that occur from year to year. An issue related to this is that by being too detailed on different types of media, one might run the risk of excluding some types, and the reported numbers might be lower than in reality. One example of this could be that the annual Norwegian study asks about experienced cyberbullying on mobile phones, Ipads and computers, leaving out live gaming such as the use of PlayStation or Nintendo Switch. A higher prevalence might have been reported if the description was more general. These studies are interesting examples in the context of a discussion of the discrepancies in prevalence rates of traditional and cyberbullying for Norwegian children in various studies.

In general, both Norwegian and international studies show that the prevalence of traditional victimization seems to be higher than the prevalence of cyber victimization (e.g., Inchley et al., 2014; Roland & Auestad, 2009; Livingstone, Haddon, Görzig, & Ólafsson 2011; Olweus, 2012; Slonje & Smith, 2008; Wendelborg, 2019).

It is often claimed by the media that cyber victimization is increasing in tandem with technological development. However, research investigating the prevalence of cyberbullying in Norway over time

shows no systematic change in the prevalence (Olweus, 2012; Olweus & Limber, 2018; Wendelborg, 2019).

Gender and age

Several studies find that more boys than girls are victimized in a traditional way (e.g., Boulton & Underwood, 1992; Solberg & Olweus, 2003; Olweus, 2010). However, the HBSC - study by Craig and Harel (2004) found a relatively small gender difference in all 35 countries included in the study.

In research on cyber victimization, the issue of gender seems to be more complex, as many studies find no differences between girls and boys (e.g., Brown, Demaray & Secord, 2014; Hinduja & Patchin, 2008; Juvoven & Gross, 2008; Williams & Guerra, 2007). Other studies, however, find a higher prevalence of cyber victimization among girls than among boys (Dehue, Bolman & Völlink, 2008; Smith, Mahdavi, Carvalho & Tippett, 2006; Tsitsika et al., 2015), and another finds boys reporting more cyber victimization than girls (e.g., Salmivalli & Pöyhönen, 2012).

Traditional victimization seems to decrease with age (Olweus, 2010), as cyber victimization studies show a curvilinear trend, indicating that the peak appears to be reached at approximately 13 to 15 years of age (Tokunaga, 2010).

There could be many reasons for the inconsistencies in studies regarding gender and age differences. Smith et al. (2013) suggest that the inconsistency across studies might be due to different methodologies and samples.

2.1.3 Overlap of traditional and cyber victimization

Some research concerns the overlap between traditional and cyber victimization. The degree of overlap could be presented in different ways; in this thesis, the focus is on percentages of overlap.

This can be defined as the percentage of cyber victims who also are victims of traditional bullying. This way of calculating the overlap is used in the research reported below.

In a Norwegian study, Olweus (2012) found an overlap of 93 % between traditional and cyber victimization, and the cutoff point used was 2-3 times per month. Thus, 93 % of the respondents in Norway having experienced cyber victimization also say they have experienced traditional victimization. However, the numbers vary; in the Norwegian annual study, 48,5% of the respondents having experienced cyber victimization also report having experienced traditional victimization (Wendelborg, 2019). The degree of overlap also varies internationally from 44% (Ybarra & Mitchell, 2004) to 75 % (Smith et al., 2008) using the same cutoff of 2-3 times per month.

These variations in the degrees of overlap may be due to differences in context, measurement instruments and conceptualization. However, authors generally agree that a large proportion of pupils experiencing cyberbullying are also bullied in traditional ways (Olweus & Limber, 2018). It should be noted that the overlap could be calculated the other way around; by the percentage of traditional victims who also are cyber victims.

In addition to research on the overlap between traditional and cyber victimization, research has also been carried out on the emotional problems stemming from traditional and cyber victimization.

2.1.4 Traditional and cyber victimization and emotional problems

Research has found a correlation between traditional victimization and symptoms of depression (e.g., Hawker & Boulton, 2000; Reijntjes et al., 2010; Rigby, 1996; Ttofi, Farrington, Lösel & Löber, 2011). This is also the case with traditional victimization and anxiety (e.g., Grills & Ollendick, 2002; Hawker & Boulton, 2000; Nishina, Juvoven & Witkow, 2005; Reijntjes, Kamphuis, Prinzie & Telch, 2010). In addition, there is a correlation between traditional victimization and suicidal thoughts (Holt, et al., 2015; Van Geel, Vedder & Tanilon, 2014) and school non-attendance (Egger, Costello & Angold, 2003; Havik, Bru & Ertesvåg, 2015; Rueger & Jenkins, 2014).

The correlation between traditional victimization and symptoms of anxiety and depression has been found in several longitudinal studies, indicating that this victimization contributes to symptoms of anxiety and depression (Copeland, Wolke, Angold, Costello, 2013; Fekkes, Pjipers, Fredriks, Vogels & Verloove-Vanhorick, 2006; Kim, Leventhal, Koh, Hubbard & Boyce, 2006; Takizawa, Maughan, & Arsenault, 2014). Studying the possible long-term impact of childhood bullying victimization findings from the National Child Development Study [NCDS] showed that victims who were bullied in childhood reported a higher prevalence of anxiety and depression at age 50 than participants who had not experienced victimization (Takizawa, Maughan & Arsenault, 2014).

In addition to these studies, longitudinal studies on monozygotic [MZ] twins have been examining the correlation between childhood bullying victimization and emotional problems (Arsenault, 2018). These types of studies offer rigorous control for variables as they study individuals from the same family environment with the same genetic code, but who have been exposed to different distinct experiences (Vitaro, Brendgen & Arsenault, 2009).

One study found that MZ twins who had experienced bullying at the age of 7 years reported more emotional problems at the age of 10 years than their cotwins who had not experienced bullying (Arsenault, Milne, Taylor, Adams, Delgado, Caspi & Moffit, 2008). Another study found that over the course of 2 years differences between MZ twins related to experienced childhood bullying were associated with differences in anxiety. However, these findings were nonsignificant over 5 years (Singham, Viding, Schoeler, Arsenault, Ronald, Cecil et al., 2017). A third study found that MZ twins who had experienced bullying were twice as likely as their cotwins who had not experienced bullying to have social anxiety and separation anxiety in their childhood. Additionally, they were three times more likely to have suicidal ideation as young adults (Silberg, Copeland, Linker, Moore, Roberson-nay & York, 2016).

However, despite the existing evidence for bullying having a negative effect on victims' mental health, there are also some studies finding that not all children who have experienced bullying end up with emotional problems (Bowes, Maughan, Caspi, Moffitt & Arsenault, 2010; Fisher, Moffitt, Houts, Belsky, Arsenault & Caspi, 2012; Sugden , Arsenault, Harrington, Moffitt, Williams & Caspi, 2010).

Although research on cyber victimization has not progressed as far as that on traditional victimization, studies also find a correlation between having experienced cyber victimization and symptoms of, for example, depression (Olenik-Shemesh, Heiman, & Eden, 2012) and symptoms of anxiety (Shenk & Fremouw, 2012). A meta-analysis performed by Kowalski, Giumetti, Schroeder & Lattanner (2014) of 137 unique data sets finds that individuals reporting high levels of cyber victimization also tended to report high levels of both depression and anxiety.

In addition, some studies estimate the unique effect of various forms of victimization (Bonanno & Hymel, 2013; Campbell, Spears, Slee, Butler & Kift, 2012). One of these studies finds a stronger correlation between both symptoms of anxiety and depression and cyber victimization than

between these symptoms and traditional victimization (Campbell et al., 2012). However, there are different findings regarding the association between emotional consequences and the different forms of victimization. Bonanno & Hymel (2013) found the association between social[3] victimization and depression to be stronger than that between cyber victimization and depression.

Longitudinal studies have also been performed to examine the negative outcomes of cyber victimization when controlling for traditional victimization and vice versa. Some of these studies find that cyber victimization is an additional risk factor for traditional bullying. One study found cyber victimization to be a greater risk factor for adolescent depression than traditional bullying (Machmutow, Perren, Sticca & Alsaker, 2012). Another study found that cyber victimization predicted changes in depression and negative conditions to a greater extent than traditional victimization (Cole et al., 2016). However, the results from longitudinal studies are inconsistent. For example, a longitudinal study by Landoll, La Greca, Lai, Chan & Herge (2015) found that cyber victimization had a unique effect on anxiety but did not predict increased depression when controlling for traditional victimization.

Research finds that poly-victims, i.e., individuals that have experienced both traditional and cyber victimization, have significantly higher scores of poor self-esteem in addition to a higher risk of depression and loneliness compared to victims of traditional bullying (e.g. Brighi et al., 2012; Cañas, Esteves, Martinez-Monteagudo & Delgado, 2020; Gradinger, Strohmeier, Spiel, 2009; Villora, et al., 2020).

In this thesis, traditional and cyber victimization are compared in relation to the symptoms of anxiety and depression. Cases in which victims have

[3] Social victimization is presented as one type of traditional victimization together with physical and verbal victimization. Social victimization is defined as a type of indirect victimization (Bonanno & Hymel, 2013). “Behaviors intended to harm their social status, relationships, or self-esteem” (Galen & Underwood, 1997).

experienced only traditional or both traditional and cyber victimization are also explored in relation to symptoms of post-traumatic stress.

2.1.5 Bullying as a traumatic experience

From the above information, we can conclude that bullying can cause substantial emotional problems for victims. Moreover, studies suggest that the long-term effects described by victims of school bullying could be similar to those of survivors of childhood abuse (Arseanault, 2018; Carlisle & Rofes, 2007; Lisak, 1994; Terr, 1991). A correlation between having experienced victimization and symptoms of posttraumatic stress both at work (Matthiesen & Einarsen 2004; Mikkelsen & Einarsen, 2002; Tehrani, 2004) and in school (Idsøe, Dyregrov & Idsøe, 2012; McKenney, Pepler, Craig & Connolly, 2005; Mynard, Joseph, & Alexander, 2000; Rivers, 2004) has also been found. It is important to emphasize that as the criteria for establishing a diagnosis of PTSD are strict, previous research has referred to symptoms of post-traumatic stress rather than the diagnosis of post-traumatic stress disorder.

Originally, the term *trauma* belonged to the field of medicine, which differentiated between pneumonia as a disease and a bone fracture as a trauma (Raundalen & Schultz, 2006). However, as medicine gradually abandoned this distinction, the field of crisis psychology began using the expression ‘psychological trauma’, which eventually became referred to as simply ‘trauma’. Psychological trauma may be defined as follows:

Overwhelming, incontrollable events that cause an extraordinary psychological strain for the children or youths experiencing them. Usually, these kinds of events occur suddenly and unexpectedly; however, some are repeated without the child being able to stop them. The events often make the child feel helpless and vulnerable (Dyregrov, 1998, pp. 11-12).

Trauma in the literature is divided into two subgroups: type I and type II trauma. Type I trauma results from experiencing an overwhelming *one-time* situation, while type II trauma results from experiencing a more *longstanding* situation (Terr, 1991; Bath, 2008). According to Bath (2008), type II trauma could be defined as a complex trauma (developmental or relationship trauma). This type of trauma could be described as *"The experience of multiple, chronic and prolonged, developmentally adverse traumatic events, most often of an interpersonal nature and early life onset"* (Van der Kolk, 2005, p. 402). As bullying involves repeated incidents occuring over time, it can be characterized as a complex trauma. Being bullied can be seen as a prolonged exposure, one that shatters the victim's basic cognitive schemes regarding self, other people and the world (Mikkelsen & Einarsen, 2002).

Traumatized children often face substantial challenges related to strong visual memories, repetitive behavioral patterns, trauma-specific fear and changed attitudes toward people, events in their lives and the future (Terr, 1991). A child having experienced victimization can, for example, be constantly reminded of the victimization when experiencing visual memories while doing something completely different. This phenomenon could, in turn, cause a great deal of stress. Additionally, this phenomenon might also cause fear related to school for example, being afraid to go to school or, be at school or showing up in specific subjects where they know that the chances of being bullied are high. Children who have experienced bullying could also develop a high level of skepticism toward other people. This skepticism could follow them in adulthood in the form of social anxiety.

The requirements to establish a diagnosis of PTSD are strict and have become even stricter through the years, and in the DSM – 5, the requirements were "modified to restrict its inclusiveness" (Pai, Suris & North, 2017). The current diagnostic criteria emphasize that "assessment of PTSD symptoms is appropriate only if criterion A is met, i.e., the

individual has had a qualifying exposure to a requisite trauma" (Pai, Suris & North, 2017). The DSM – 5 defines trauma as "*actual or threatened death, serious injury or sexual violence"* (APA, 2013, p. 427). In addition to criterion A being met, several of the symptoms must be present. Given this context, it is therefore important to emphasize that research on victims of bullying typically uses the term *symptoms* of post-traumatic stress and not symptoms of PTSD, the latter referring to the diagnosis (e.g., Idsøe, Dyregrov, Idsøe & Nielsen, 2016; Matthiesen & Einarsen, 2004; Mikkelsen & Einarsen, 2002).

Intrusive memories are described as memories that suddenly appear and reminds the person of the traumatic events. These memories could be very distressful and lead, for example, to problems in concentrating and sleeping. The symptom of *avoidance* includes both mental and behavioral avoidance. Mental avoidance is described as "avoidance of or efforts to avoid distressing memories, thoughts or feelings about or closely associated with the traumatic events" (APA, 2013, p. 271). For a victim of bullying, mental avoidance could include trying to repress thoughts about the victimization and thoughts promoting associations with the victimization. Behavioral avoidance is defined as "avoidance of or efforts to avoid external reminders that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic events" (APA, 2013, p. 271). In terms of bullying, behavioral avoidance could include for example, avoiding places where the victimization was experienced, such as school, extracurricular activities, social media platforms or birthday parties.

2.2 Authoritative teacher style

Research on an authoritative school climate has established that it is related to lower levels of bullying (e.g., Cornell, Shukla & Timothy, 2015; Gerlinger & Wo, 2016; Gregory et al., 2010). In addition, studies on authoritative classroom leadership find that authoritative leadership prevents bullying (e.g., Roland & Galloway, 2002). To the best of our

knowledge, no study has investigated the authoritative teacher's response to, or intervention in cases of bullying.

The concept of an authoritative teacher style is based on the theory and research regarding four different parental styles introduced by Baumrind (1971). When studying the authoritative teacher, both Norwegian and international studies reference research carried out by Baumrind (e.g., Ertesvåg, 2011; Walker, 2009; Wentzel, 2002).

The concept of *warmth* is described by Baumrind (2013) as the emotional warmth and supportive actions being attuned to the vulnerabilities, inputs and thoughts of the child in addition to supporting the child's plans and individual needs. The concept of control is today described by Baumrind as *demandingness* which includes two related components: monitoring and control. Monitoring is described as the adult providing structure, order and predictability in the child's life. Control refers to what shapes the child's behavior in addition to what restrains the child's potentially disruptive behavior (Baumrind, 2013). The third paper of this thesis refers to the concept of control, however, I have chosen to use the concept of demandingness in the surrounding material as this term gives a more full-bodied description of the concept.

Originally the two dimensions of warmth and control defined the four styles. Baumrind (2013) emphasizes the importance of perceiving warmth and demandingness as two separate dimensions: "misunderstanding of parental authority and of the authoritative construct is fostered when parental control and warmth are represented as opposites of the same continuum rather than as two independent dimensions" (Baumrind, 2013, p. 13).

To describe how these two dimensions are not a part of the same continuum, but two separate dimensions Baumrind presented the different styles using a well-known figure.

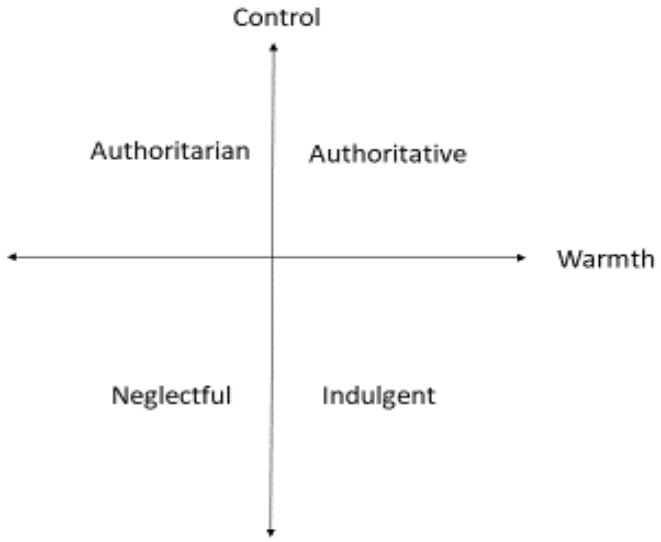

Figure 2. Different teacher styles

This figure describes how the 4 different styles relate to the dimensions of warmth/responsiveness and demandingness/control (Baumrind, 1971).

The *authoritative* parenting style, which is high in control and high in warmth, has been found to be associated with the best outcomes for children (Chan & Koo, 2011; Baumrind, Larzelere & Owens, 2010; Steinberg, 2001). The authoritarian style, which is low in warmth and high in control, could, according to research, result in increased aggression and resistance in children (Nordahl et al. 2003). Children who

are exposed to an indulgent style, high in warmth and low in control, often exhibit low self-reliance and low self-control (Baumrind, 1991). The *neglectful* style, which is low in warmth and low in control results in the most negative outcomes, including high levels of aggression, low self-esteem and impulsive behavior (Baumrind, 1991).

After presenting the parenting styles in figure 2, Baumrind has also added three styles in the recent years: democratic, directive and good enough as few parents seem to fit the prototypes (Baumrind, Larzelere & Owens, 2010). However, research regarding these styles is rather scarce, especially regarding teachers and this would therefore have to be a subject for future research. This could also be styles that could be interesting to study regarding for instance cultural differences in the future.

Although Baumrind's conceptualization of parenting styles has been very influential, some questions may remain unanswered. Darling and Steinberg (1993) presents concerns regarding, how ethnic differences can affect authoritativeness on children's development, and on what empirical basis one draws conclusions regarding the most appropriate parenting style. Smetana (1994), points out that the theory is too general and context free, as the choice of parent style could depend on the situation one is in. Sommer (1996) also points to the importance of modifying the categories and not using them as stereotype characteristics. A second issue that has been pointed out is that there are competencies within both the parent and the child that have not been accounted for in the research such as the consequences for the modern child growing up in an authoritative family with reconciled decision making (Sommer, 1996). A third issue could be that the child as a contributor is greatly underestimated by Baumrind (Sommer, 1996).

A fourth issue is how Baumrind presents her categories of parenting styles as non-ideological based on a paradigm that could be associated with some limitations, as parenting styles could be conditioned by

history and culture (Sommer, 1996). Previous research has examined cultural differences regarding parenting styles, reporting inconsistent results. Some studies find that the authoritarian parenting style is associated with better GPA scores for Asian and African American pupils than the authoritative parenting style (Dornbush, Ritter, Leiderman, Robert and Fraleigh, 1987; Steinberg, Mounts, Lamborn and Dornbusch, 1991). Sorkhabi and Mandara (2013) point out that these findings are wrongly interpreted by many researchers to mean that the authoritarian parenting style is the optimal style for certain groups. Several studies also find evidence for the authoritative parenting style being the most beneficial also for Asian children (e.g. Ang, 2006; Florsheim, 1997; Garg, Levin, Urajnik & Kauppi, 2005; Kim & Chung, 2003). This is a topic that could have been discussed more in depth; however this thesis is not looking into cultural differences and this will therefore not be further examined.

2.3 Authoritative teacher style and pupils who have experienced victimization

As previously noted, research finds a correlation between having experienced traditional and/or cyber victimization and emotional problems. Idsøe and Idsøe (2012) emphasize that emotionally vulnerable children need a safe and predictable classroom, one with clear rules based on support. Idsøe et al. (2016) state that in addition to having effective procedures related to bullying intervention, it is also important that schools create what they refer to as trauma-sensitive environments. Such an environment enables pupils to feel both physically and emotionally safe within a supportive culture.

A teaching style that includes important aspects for creating this kind of environment is what Baumrind (1991) refers to as the authoritative teacher style, as it focuses on adults who are warm and responsive toward the child and who also communicate clear demands. Support and warmth from teachers could be especially important for children having

experienced victimization, as it could contribute to their having a more positive evaluation of themselves and of their possibilities of coping (Davidson & Demaray, 2007; Damaray, Malecki, Davidson, Hodgson, & Rebus, 2005). Although the dimensions of warmth and demandingness will be described separately, I would like to underline the importance of the combination of these dimensions. Walker (2009) states that "in this model both dimensions are necessary, but neither dimension is sufficient to create an optimal learning outcome" (Walker, 2009, p.127).

2.3.1 The need for a warm teacher

A warm teacher nurtures a good relationship between the teacher and the pupil (Baumrind, 2013). This relationship is of great importance, as pupils who are more emotionally connected to teachers demonstrate positive trajectories of development in both the social and academic domains (Hamre & Pianta, 2001; Harter, 1996; Pianta, Steinberg & Rollins, 1995; Ryan, Stiller & Lynch, 1994; Wentzel & Wigfield, 1998). A good relationship with the teacher could also improve the child's motivation for school and, in addition, how they are dealing with the outside world emotionally (Roeser, Eccles & Sameroff, 1998). Research also finds that this good relationship could have a positive effect on children who are described as vulnerable. For example, having good relationships with school personnel appears to potentially function as protection for children who have experienced bullying (Breivik et al., 2017).

Bullying is often referred to as a complex relational problem (Pepler, 2006). It is therefore important to be aware that pupils who have experienced victimization have felt rejection and that this experience might hinder the possibility of creating good relationships. For these relationships to develop, warm teachers who recognize what pupils have been going through and who manage to help pupils recognize their own feelings and communicate them to others, are essential. In this work,

teachers are not supposed to play the role of a therapist; however, they can use certain methods that have so-called *therapeutic effect*s (Raundalen & Shultz, 2006).

These methods may include teachers speaking with a pupil about how he/she is doing but, without going into detail about what has happened; this is called "defocused communication" (Tveitereid, Fandrem & Sævik, 2018) and shows that the teacher cares. It is important to be aware of what is said to the pupil having experienced trauma and of the nonverbal signals being sent. This awareness is important because these children often notice nonverbal signals even more than verbal signals. Although the role of the teacher is to provide good emotional support, rather than going into detail about the traumatic events, the adult must not signal a fear of or lack of interest in talking about the trauma experienced by the child (Perry, 2002), as this could affect the child's thoughts about how to talk about difficult things, which again could lead to negative coping strategies (Idsøe & Idsøe, 2012).

2.3.2 The need for a teacher high in demandingness

In addition to having a teacher high in warmth, these pupils need a teacher who monitors and is in control of the classroom, this dimension is also called demandingness.

The dimension of demandingness is described by Baumrind (2013) as consisting of two related components: monitoring and control. Monitoring is described as providing structure, order and predictability for the child, and control is described as shaping the child's behavior and restraining what could be potentially disruptive behavior. Together these two components then provide order, structure and predictability to the child's life, shaping the child's behavior and curtailing possibly disruptive behavior (Baumrind, 2013).

Both authoritative and authoritarian styles are strict (Baumrind, 2010). However, although both the authoritative and the authoritarian style are high in control, Baumrind (2013) emphasized the importance of distinguishing between two *different* types of control. The model of the different styles could therefore be interpreted as somewhat misleading and simplistic, as the term 'control' refers to different types of control depending on which style is described. "The *kind* of power assertion not the *amount* of power assertion, used by the authoritative parents is what differentiate authoritative from authoritarian parents (Baumrind, 2013, p. 20).

According to Baumrind (2010) both the authoritative and authoritarian styles use confrontive control, which could be described as firm, direct, forceful and consistent. However, in addition to confrontive control the authoritarian style also uses coercive control, which could be described as domineering, arbitrary and concerned with retaining hierarchical family relationships. Research has found an association between coercive control and adverse child outcomes (Barber, 1996; Patterson, 1982; Kochanska, Padavich & Koenig, 1996)

Compared to coercive control, confrontive control could be seen as functional and reasonable. Confrontive control is used to provide organization and limits enforcing compliance when children are not doing what they should (Baumrind, 2013) For example, in a bullying situation, it is necessary for the teacher to perform confrontive control; however, this needs to be done with the dimension of warmth as a foundation. The teachers' goal needs to be to put an end to the bullying in addition to taking care of the pupils and making sure they learn why they cannot pursue this bullying behavior (Roland, 2007).

Providing organization and limits not only ensures predictability for the pupils in terms of their knowing what to do, but also provides a sense of safety stemming from clear rules and information, which in turn make classrooms safe (Idsøe & Idsøe, 2012). One could argue that an

authoritarian style could also be experienced as predictable. However, the predictability would be different as the principles of the authoritative style such as respect, attunement and perspective taking are taken into account.

Protective control

Ensuring that adequate measures are taken and giving this information to a victimized child would perhaps contribute to this child's experience of a more predictable and safe school environment. Providing pupils with this predictability during the bullying intervention also establishes safety, an important feeling for children who have experienced trauma (Bath, 2008). This feeling is important because the child uses a great deal of energy seeking safe places instead of focusing on activities that stimulate development and growth (Bath, 2008).

This type of control in this thesis is presented as *perceived protective control* and relates to whether the child who has experienced victimization perceives the teachers as capable and/or willing to act to stop the ones who have bullied. With a teacher who exhibits over the pupils who have been bullying, the pupil who has experienced victimization might also experience greater predictability and safety in school. In addition to stopping the bullying behavior, control should also include informing those pupils who have bullied about the possible serious consequences of both traditional and cyber victimization, and taking some form of digital control for a period of time, such as by requiring that their phones be handed in at the beginning of the school day. Although the concept of perceived protective control is connected to the dimension of demandingness, it cannot be seen as independent of the dimension of warmth. For a teacher to be able to perform protective control, a good relation between the teacher and the pupils would have to be established. The dimension of warmth or responsiveness (Baumrind 2013) is important when performing protective control as the teacher needs to tune in to the pupil and be supportive of the pupils'

individual needs. This combination of responsiveness and demandingness corresponds well with the authoritative teacher style.

3 Methods

Initially this methods section begins by commenting on the use of both quantitative and qualitative methods in this thesis. The methods used in the study will then be described, and the ethical issues will be introduced and discussed. Finally, the methodological considerations will be addressed.

3.1 Quantitative and qualitative methods

Qualitative and quantitative methods are commonly described as two different paths toward knowledge about a phenomenon. Aase and Fossaskåret (2014) emphasize that although researchers could be said to be qualitatively or quantitatively oriented, there is a need to use both these perspectives within the research field to obtain a more complete picture of the phenomenon studied. This can be accomplished in different separate studies or in a single study.

To answer the research questions presented in the introduction both quantitative and qualitative method were used. The quantitative approach was conducted using a survey on a large representative sample, while semi-structured interviews were used for the second part of the study.

In this thesis, using both quantitative and qualitative methods involved studying both correlations regarding traditional and cyber victimization and different types of emotional problems and obtaining qualitative descriptions of the same emotional problems. However, I would not characterize this as a mixed methods approach, as the methods are not accomplished simultaneously in the same sub-study.

It is argued that both the quantitative and a qualitative approach could be based on the philosophical assumption called *critical realism* (Lund, 2005). Critical realism views the phenomena studied in scientific

research as not being entirely constructions in the mind of the scientist, but rather as corresponding to real processes that exists independently of us (Lund, 2005). This fits the approach in the present study, thus the scientific stand of this thesis is critical realism.

3.2 The quantitative study

3.2.1 Procedure and samples

The main aim of the quantitative study was to investigate how traditional victimization and cyber victimization were related to symptoms of general anxiety and symptoms of depression. An additional aim was to investigate the prevalence of traditional and cyber victimization among Norwegian tenth grade boys and girls.

Paper 1 includes data from the Internet-based school environment study conducted in Norwegian schools by the Center for Behavioral Research in 2008. This was a tri-annual survey conducted from 1995 to 2008.

The sample in this study comprised 3,046 Norwegian adolescents between 15 and16 years of age. There were 1,583 boys and 1,563 girls. The response rate of pupils in the participating classes was 81%. Participants were recruited from 63 schools in 27 municipalities in Norway. Based on three dimensions: industrial links, population density in the municipality and the centrality of the municipality, the sample was according to The Norwegian Central Burau of Statistics' Standards representative (Statistics Norway, 1994). Industrial link is characterized by "distribution of persons registered as being resident in the municipality in connection with the census of 3 November 1990" (Statistics Norway, 1994, p. 17). Population density is "based on the percentage of the population that at the time of the census of 3 November 1990 resided in the densely populated areas" (Statistics Norway, 1994, p. 17). Centrality measured the municipality's geographical position .

This is seen in relation to placement of the central functions (Statistics Norway, 1994).

Data collection was performed by teachers following standard procedures. A digital survey was used and, to ensure anonymity, the participants logged in using an untraceable password. The schools were asked to seat the pupils in such a way that no participant could see what the other answered. The participants were also asked not to speak to anyone while filling out the questionnaire.

3.2.2 Measurements

Symptoms of anxiety and depression were measured using items from the Hopkins Symptoms Checklist (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). Four response categories were used: *(0 = have not suffered, 1 = suffered sometimes, 2 = suffer quite a lot, and 3 = suffer a lot)*. Both the scales for symptoms of anxiety and depression recorded their frequency over the last two weeks.

To measure *symptoms of anxiety*, a four-item scale was used: "feel anxious and scared", "suddenly scared for no reason", constantly feeling scared or anxious" and "anxiety or panic attacks". Cronbach's alpha was.89.

Symptoms of depression were measured using an eight-item scale : "feeling everything is hard going", feeling hopeless about the future", "worrying or stewing about things", "blaming yourself for things", "low on energy", "feeling unhappy, sad or depressed", "difficult falling asleep or staying asleep", and "feelings of worthlessness or excessive or inappropriate guilt". Cronbach's alpha was. 89.

Before answering the items related to victimization, the pupils were presented with a standard definition of bullying in the questionnaire: *"We call it bullying when one or several (together) is unfriendly or nasty toward another person who cannot easily defend themselves and when*

this is repeated. Examples of this could be that he/she was kicked, hit or pushed. It is also bullying when he/she is teased a lot or excluded by the others".

Victimization was measured using separate items concerning traditional and cyber victimization. For both measures the pupils answered using a 5 – point scale (0 = never, 1 = seldom, 2 = 2-3 times a month, 3 = weekly, and 4 = daily). Both scales measuring victimization registered the frequency during the last school year.

Traditional victimization was measured using a three-item scale inspired by a four- item scale used in previous studies by Bru, Boyesen, Munthe and Roland (1998) and Roland and Idsøe (2001). All the questions in the scale were used except the general question concerning victimization, as this question does not refer to traditional victimization alone and might be read as also including cyber victimization. The items measuring traditional victimization were specific questions regarding isolation, verbal bullying and being bullied physically. Cronbach's alpha was .82.

Cyber victimization was measured using items according to which technology was used at the time the survey was conducted. All the items used to measure cyber victimization referred to bullying. These were related to the most common types of cyber victimization at the time: e-mails, mobile phone calls, pictures/videos and text messages. Three items measured cyber victimization on the mobile phone: "bullied by phone calls", "bullied by pictures or movies on the mobile phone", "bullied by text messages". Four items measured cyber victimization on the Internet: "bullied by someone writing to you", "bullied by someone publishing pictures of you", "bullied by someone publishing a movie about you", "bullied by someone publishing a text about you". Cronbach's alpha was .95.

3.2.3 Analysis, Paper 1

The data analysis was conducted using SPSS software (SPSS, 2006). Further latent variables in structural equational modeling (SEM) (Jörskog, 1993) were used to investigate the relationship between traditional and cyber victimization and emotional problems. For this investigation, Mplus (Muthen & Muthen, 2011) was used. SEM analysis was chosen, as we suspected high associations between the two types of emotional problems and the two types of victimizations, and this method assess and corrects for measurement errors (Byrne, 2009).

3.3 The qualitative study

3.3.1 Design and sample

Papers 2 and 3 includes data based on the qualitative research project *Stigma*, which was initiated in 2014 by a research group at the NSLA. A convenience sample was used. This approach can be defined as a sample selected because of its availability to the researcher. This sample can be considered a form of nonprobability sample (Bryman, 2016).

Initially 10 interviews were performed, however one of the informants provided too little information on the topics of interest and was therefore not used. The study was then based on semi-structured interviews with 9 former victims of bullying; 5 were Norwegian and 4 were Irish. The sample comprised 8 girls and 1 boy ranging in age from 12 to 18 years. In 2 cases, the respondents experienced traditional victimization, while in 7 cases, they experienced both traditional and cyber victimization.

3.3.2 Data Collection

The interview guide was piloted to determine how the questions worked when interviewing children. The questions were not perceived as

difficult to understand, and thus, no changes were made to the interview guide.

Staying in Ireland for three months from September to December 2014 made it possible to conduct interviews with four Irish pupils who were former victims of bullying. The interviews in both Norway and Ireland were conducted consecutively, as new closed cases were continuously reported to the center by teachers and parents.

Three members of our research group including myself conducted the interviews in Norway and I conducted all the interviews in Ireland personally. The interviews were held in a private room in the school or in a private setting. All the interviews were tape-recorded.

The interviews began with small talk, trying to make the respondents comfortable in the interview setting. Before we asked questions about bullying, all the respondents were presented with the same definition of bullying: a negative act, with an imbalance of power, done against someone who cannot easily defend themselves (Olweus & Roland, 1983). In addition, it was emphasized that *"bullying can happen in different ways. For example, it is common to distinguish between what could be defined as traditional bullying, such as relational and physical bullying, and what could be defined as cyberbullying using electronic means"*.

The interviews were semi-structured, meaning that the interview guide comprised a list of relevant themes that we wanted more information about. We attempted a conversation with a natural flow. The relevant themes were the following: communication about the bullying; what was said and, to whom, and where and how the bullying affected life in general. We investigated the following; what was done by the school in terms of measures and social network. In addition, the respondents were asked to talk at length if elaboration was required. To ensure that the interviewer understood what the respondent said, the interviewer

continuously verified by presenting a summary of what was said by the respondent in addition to asking if this interpretation was correct.

3.3.3 Analysis, Papers 2 and 3

The transcriptions of the tape-recorded interviews were inspired by the description presented in Kvale & Brinkmann (2010). A thematic analysis was used in both papers 2 and 3. “The thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of the data” (Braun & Clarke, 2006, p. 78). Within the thematic analysis, a theoretical approach was used when analyzing the transcribed interviews. Theoretical thematic analysis is driven by the researcher’s theoretical interest and provides a more detailed analysis of some parts of the data instead of rich descriptions of the overall data (Braun & Clarke, 2006). The data were analyzed using pre - existing coding frames and concept-controlled coding (Brinkmann & Kvale, 2010).

To obtain an overview of the cases and of what kind of case each respondent belonged to, we produced a table of all the cases with information regarding pseudonym, age, gender, country, how long the respondents had been bullied and what type of victimization they had experienced (traditional and /or cyber). This table was helpful in analyzing the data, as it quickly gave us information about, for example, what type of victimization, which made it easier to compare respondents who had experienced different types of victimization.

There was a continuous dialogue between researchers during the analysis of the data. The initial read-through was performed by two researchers, and the latter analysis was carried out by one researcher alone but with a continuous dialogue with one or two members of the research team. When disagreements occurred, a third party was called in.

Analysis in paper 2

The main aim for this qualitative study was to explore whether and how victims of closed cases of long-term bullying report symptoms of post-traumatic stress. A second aim was to see whether there were differences in the symptoms reported by victims of traditional and / or cyber bullying.

To analyze the data in paper 2, the data program Nvivo 11 was used. The program was helpful in storing, sorting, categorizing and thematically classifying the data. The program was also helpful when the need arose for redefining and performing new analysis. In paper 2, a stepwise analysis was performed.

The first step was reading through all the interviews to obtain an overview of different emerging themes related to the emotional problems experienced by the respondents. In a second read-through, all the descriptions related to emotional problems were gathered in the main node, “emotional problems”. In a third read-through, the dominant themes relating to the description of different types of emotional problems was captured.

As 7 respondents were poly-victims and many of the emotional symptoms they described could be identified as symptoms of post-traumatic stress, we chose to follow the descriptions of these symptoms rather than of both anxiety and depression.

In addition to the best of our knowledge, these symptoms have never been studied in relation to long-lasting bullying. The different themes that emerged were fear, difficulty concentrating, trouble sleeping, avoidance and bodily reactions.

The second step in the analysis was to use a thematic approach to identify, analyze and report the patterns found (Braun & Clarke, 2006). A theoretical approach was used, fitting the data into the pre-existing coding frames related to the main symptoms of posttraumatic stress:

intrusive memories, avoidance and bodily activation. In this part of the analysis, what Braun and Clarke (2006) refer to as *latent themes* were used as it was necessary to include questions we knew could indicate symptoms of emotional problems such as depression and anxiety. A "latent approach would seek to identify the features that gave it that particular form and meaning" (Braun & Clarke, 2006, p. 84). The main nodes 'intrusive memories' and 'avoidance' were further divided into sub-nodes. Intrusive memories were divided into feeling frightened and anxious, problems concentrating and having difficulty sleeping. Avoidance was divided into mental and behavioral avoidance.

Analysis in paper 3

The main aim of this study was to conceptualize authoritative intervention in bullying cases, from the assumed perspective of the victim. A second aim was to explore the experiences and understanding of pupils who have been bullied in regard to how teachers responded when the bullying was occurring.

The data program Nvivo 12 was used to analyze the data in paper 3 and a stepwise analysis was also performed. The first step was to read through all the interviews to obtain an overview of the emerging themes related to the description of the teachers. During a second read-through, all the descriptions of the teachers were gathered under the main node 'teacher descriptions'. In a third read-through, the descriptions related to the class teacher where chosen for a new node, 'class teacher'. In a fourth read-through of the descriptions in the node 'class teacher' the dominant themes relating to the description of support from class teacher were captured. During this analysis two main themes emerged: emotional support and whether the teacher tried to stop the bullying.

The second step in the analysis was to use a thematic approach to identify, analyze and report the patterns found (Braun & Clarke, 2006). A theoretical approach was used, fitting the data from the two main

themes emerging (emotional support and whether the class teacher tried to stop the bullying) into the pre-existing coding frames related to the two dimensions of authoritative teacher style: warmth and control or demandingness, as is the concept used in this summary. The data concerning emotional support were related to warmth and the data concerning if the respondent experienced the teacher trying to stop the bullying were related to control. In this part of the analysis a more *semantic* than latent approach was used. A semantic approach is described as one that identifies the themes within the explicit meaning of the data, rather than looking beneath what has been said or written (Braun & Clarke, 2006). In this study, as we were interested in how the teachers were explicitly described by the respondents, a semantic approach was used.

The main nodes ‘warmth’ and ‘control’ were divided into sub-nodes to capture the degree of perceived warmth and control. The sub-nodes used were ‘absent’, ‘low’, ‘medium’ and ‘high’. When identifying warmth, ‘absent’ referred to experiencing no warmth shown by the class teacher, and ‘low’ referred to experiencing little warmth shown and thus not a good relationship to the class teacher. ‘Medium’ referred to experiences of some warmth shown by the class teacher; however, he or she was not perceived as being very good to talk to. ‘High’ refers to a good experience of a good relationship with the class teacher, who was described as a good person to talk to. When identifying control, ‘absent’ referred to no experiences of conversations with or measures taken by the class teacher, and ‘low’ referred to experiences of the class teacher having conversations to try to resolve the situation, but with no result. ‘Medium’ referred to experiences of the class teacher both having conversations and taking measures to end the victimization, with the situation improving somewhat, but remaining unsolved. ‘High’ referred to experiences of the class teacher being in control of the situation, i.e., arranging meetings and taking measures that resulted in ending of the bullying. The description of the sub-nodes was only included in the

section describing findings in paper 3 as it was accepted as a brief report and therefore had to be cut down to save space.

3.4. Ethical considerations

3.4.1. Ethical approval

The National Data Inspectorate approved the quantitative study presented in paper 1. If the school agreed to participate, information about the study and a written consent form were distributed to the parents. Participation was voluntary and written parental consent was required.

The qualitative study presented in papers 2 and 3 was approved by both ethical committees in Norway and Ireland. When interviewing the respondents, all the cases were closed. In Norway, the cases were reported closed by the school administration, and in Ireland, they were reported closed by the Anti-Bullying Centre. As most respondents were under the age of 18 years, information about the study was provided to both parents and respondents customized their age. Parents with participating children below the age of 18 years were asked to complete a parental consent form. The parents were then contacted by phone to set the date for the interview. It was also made clear to the participants that they could withdraw from the study at any time.

3.4.2. Children as a vulnerable group

Although children can be considered a vulnerable group in research, their participation provides valuable information that could lead to knowledge that in turn could improve the situation of other children in a similar situation. According to Dalen (2004), investigating vulnerable groups generates new and important information. Children who have experienced victimization are categorized as a vulnerable group. However, obtaining more information about how different types of

victimization could affect them and how they experience the support from their class teacher in long-term cases could contribute to making the practical field support them in the best possible way.

According to the guidelines for research ethics in the social sciences, humanities, law and theology published by the national committee for research and ethics in the social sciences and the humanities (NESH) (2016), the researcher must protect respondents from harm or suffering. When interviewing children who have experienced difficult life events, it is important to focus on the balance between costs and benefits (Kvale, 1997). Although a researcher might tend to focus on the negative aspects, only the experience that someone actually listen to your story for a long period of time can make the interview a unique experience. In so doing, the researcher can also give something back to the respondents and show an interest in what they have to say (Kvale, 1997). Several respondents gave the impression that it was good to talk about what had happened to them and to have a "run through" of their whole bullying experience. However, as we were aware that this could remind them of negative incidents, we ensured there were adults available to support them if needed.

When interviewing children one should also be aware of the skewed power relationship that follows when an adult meets a child. In addition, one could be perceived as an expert on the topic investigated, and this perception might also cause challenges in terms of how a researcher interprets the situation in addition to how the child meets the researcher, and this phenomenon might also influence what the child chooses to relate and how.

The data collected in the nationwide survey – paper 1 was given anonymously by the pupils. It was consequently not possible to follow up pupils according to their answers. The data collecting instruction to the schools did not comprise any procedure for debriefing if pupils should as for it, which would have been preferable.

3.5 Methodological considerations

Using both quantitative and qualitative methods in this doctoral thesis is an opportunity not only to investigate the correlations between traditional and cyber victimization and different forms of emotional problems, but also to provide a qualitative description of processes and suffering.

According to Bhaskar (1997), critical realism has a holistic approach that is reflected in its perspective on social reality. Bhaskar (1997) divides this into two fundamental levels: 'participant' versus 'structure'. However, it is emphasized that it is not a question of either participant or structure, but of these two levels always operating *together*, as participants act in relation to the phenomena and structures related to an extensive network of structures (Buch-Hansen & Nielsen, 2005 in Buch-Hansen & Nielsen, 2014). In terms of this thesis, it could be argued that although some of the studies are focusing on individuals' reported symptoms, the focus is also on how the milieu affects individuals; as for example, what teachers can do to provide a better structure when this appears to be a challenge in terms of safety and predictability.

3.5.1 Validity

As this thesis uses both quantitative and qualitative research, the same terminology will be used for both types of research when validity is discussed. The use of the term validity in relation to qualitative methods is not, however, something all qualitative researchers agree upon (Miles, Hubermann & Saldana, 2014). Some reject the use of the term, as they believe the aim of qualitative research is to come to a deeper understanding of an issue, which is supposed to involve something other than validity (Wolcott, 1990). However, other qualitative researchers support the use of the term as "it suggests a more rigorous stance towards our work" (Miles et al., 2014, p. 313).

According to Lund (2005), the differences between quantitative and qualitative research in the fields of psychology and education are often greatly exaggerated. Lund argues that the validity system introduced by Cook and Campbell (1979) is relevant to both quantitative and qualitative methods based on the philosophical assumptions of critical realism (Lund, 2005) briefly presented earlier in this thesis.

Validity will therefore be discussed further using Cook and Campbell's (1979) four dimensions of validity: statistical conclusion validity, internal validity, construct validity and external validity.

Statistical Conclusion validity

Statistical validity is defined as: the "validity of inference about covariation between variables" (Kleven, 2008, p. 8). Statistical conclusion validity is only relevant to quantitative research (Lund, 2005). This because it refers to inferences drawn from statistical tests of significance. In paper 1, which is the only paper where quantitative research is performed, this was handled using the chi-square tests and t-tests using the probability values of .05, .01 and .001. as criteria when testing for statistical differences between groups.

Internal Validity

Internal validity is defined as: "validity of inference from an observed covariation to a causal interpretation to the interpretation that something is influenced by another thing" (Kleven, 2008, p. 8). Issues of causality are best addressed using a longitudinal design (Pedhazur & Schmelkin, 1991).

As the results in the first study presented in paper 1 are correlations between data obtained simultaneously, it is thus impossible to present any findings regarding causality from this study only. However, Lund (2005) emphasizes the relevance of triangulating the quantitative and qualitative methods with respect to validity. Regarding causality, the

findings in papers 1 and 2 are interesting to examine in relation to each other, as those in paper 2 indicate that the trauma symptoms were related to previous victimization, which strengthens an understanding of causality.

Lincoln and Guba (1985) presents different strategies to ensure internal validity or credibility in qualitative research. One of the strategies presented is ‘member checks’ also called respondent validation by Bryman (2016). Although member checks are recommended by Lincoln and Guba (1985) as a method for establishing credibility there were not performed any member checks in addition to the content confirmation described above made during the interviews. This could be seen as a methodological limitation, but there also had to be considerations regarding the informants. Because of the geographical distance between the informants and as the informants are members of a vulnerable group, presenting each story to the others as a whole group could provoke powerful emotional reactions. The solution to this could be to test the conclusion with the members of the stake holding group (Lincoln & Guba, 1985). However, as collecting informants were very time consuming, this could also be the result when trying to find members of the stake holding group. Also, one should consider the impact this presentation could have on the ‘reference group’ as well.

Not having performed a member check there is a chance that additional information might have been lost, as performing a member check also could invoke new information. Although many of the informants describe some of the same symptoms they are a convenience sample consisting of 9 informants, presenting different stories and perspectives which makes it plausible to conclude that a fully saturation i.e. “collecting data until no new information is obtained” (Morse, 1995,p. 147) cannot be said to have been accomplished.

Construct validity

Construct validity is defined as: "validity of inferences from indicators to constructs (from what we have seen to what we call what we have seen" (Kleven, 2008, p. 7). This thesis examines concepts based on psychology and educational psychology: traditional and cyber victimization, symptoms of anxiety, depression and trauma symptoms, and teacher authority.

Paper 1: For symptoms of anxiety and depression, the items used were derived from the already heavily researched Hopkins symptom checklist (e.g., Derogatis et al., 1974; Roland, 2002, Fandrem et al., 2009). In addition, the items measuring traditional victimization have been used in previous research (Roland & Idsøe, 2001) as have been those measuring cyber victimization (Smith et al., 2006). The factor solutions of our data were also good. In paper 2, the symptoms of post-traumatic stress were categorized according to symptoms described in the Diagnostic and Statistical Manual of Mental Disorders DSM-5 which has previously been used in research on victimization and symptoms of post-traumatic stress (Idsøe, Dyregrov & Idsøe, 2012; Mckenney, Pepler, Craig & Connolly, 2005). In paper 3 the dimensions of warmth and control were categorized in terms of the authoritative style related to bullying behavior described in previous studies (e.g., Ertesvåg, 2011; Gerlinger & Wo, 2016; Galloway & Roland, 2002).

Content validity can be considered part of construct validity (Messick, 1995). Content validity is what concerns the degree to which the test items used represent the content that the researcher would like to measure. The items measuring depressive and anxiety symptoms are rooted in depression and anxiety theory (Rosenhan & Seligman, 1989). When measuring bullying, a widely used definition of bullying was provided both in the questionnaire in the quantitative study and in the interviews conducted in the qualitative study comprising the three main aspects (e.g., Olweus, 1973; Olweus, 1993; Roland, 1998). In addition,

all the common elements of bullying are covered in the items used in the quantitative study.

Furthermore, in the qualitative study the categories of post-traumatic stress symptoms refer to the symptoms listed in the DSM-5 (APA, 2013), which is the worldwide guidebook on mental diagnosis. When categorizing the descriptions of the teachers in terms of the dimensions of warmth and control, these descriptions were based on the authoritative style presented by Baumrind (1991; 2013).

External validity

External validity refers to knowing if the conclusion of the study could be transferred to other contexts or generalized (Miles et al., 2014). External validity can be defined as "validity of inferences from the context of the study to a wider context or to other contexts" (Kleven, 2008, p. 8).

The statistical generalization of the results in first study could be considered valid for Norwegian children between 15 and 16 years of age, as it comprises a national representative sample.

Due to the small sample size the findings presented in papers 2 and 3 cannot be statistically generalized to the population in the same way as those in paper 1. However, "analytical generalization may be drawn from an interview investigation regardless of sampling and mode of analysis" (Brinkmann & Kvale, 2010, p. 299). Thus, it is the recipient who determines whether findings are generalizable to another situation (Brinkmann & Kvale, 2010). In qualitative research, the term transferability is an often used when discussing the issue of generalizability. Transferability depends on the report itself and how persuasive the researcher can make the findings for various individuals, places and times (Miles, et al. 2014). With this in mind it has therefore been important in the qualitative papers to fully describe the characteristics of the original sample so that it might be easier for readers

to decide if they could transfer some of the presented findings to their own situation. The findings also include “thick descriptions” and are related to prior theory, which could help readers determine their transferability.

3.5.2 Reliability

Standard conditions

In the quantitative study described in paper 1, the teachers organized the data collection according to standard procedures. The teachers were ensured that none of the participants spoke to their peers when filling in the questionnaire. The survey was also conducted over as few days as possible, preferably only one.

Cronbach’s alpha was used to estimate the internal consistency of the scales used to measure traditional and cyber victimization in addition to those used to measure the symptoms of depression and anxiety. The consistency was good. The alpha for the sample measuring traditional victimization was 0.82 and for cyber victimization 0.95. The alpha for measuring emotional problems was 0.89 for symptoms of anxiety and 0.89 for symptoms of depression.

In the qualitative study, the interviews were also performed according to standard procedures agreed upon by the research group. The interviews were held in a secluded room, and the interviewer began by getting to know the children and talking about everyday things, before questioning them about the bullying. The interviewer followed an interview protocol agreed upon by all the members in the research group.

Transparency

In qualitative studies, issues of reliability must be addressed slightly differently than in quantitative studies, because as it is difficult to

replicate the study (Dalen, 2004). This should include information about the role of the researcher, the respondents, and the interview setting, in addition to which analytical methods were used for data analysis (Dalen, 2004).

One way to ensure reliability in a qualitative study is to be very thorough in describing the different research steps (Dalen, 2004). For example, it is important to describe the interview, the transcription and the analysis. In terms of reliability, one could use the term "backstage information" to refer to the study's general methods and procedures giving the reader a feeling of having the complete picture (Miles et al., 2014). The information should be detailed enough for an outsider to be able to replicate the study (Lincoln & Guba, 1985). The steps in the qualitative study have been thoroughly explained in the methodology section.

The role of the researcher

Miles et al. (2014) emphasize that a reflection concerning the role of the researcher and how assumptions, values, biases and mood could affect the interview, and thus the analysis, must be addressed. Researchers are influenced by their background, which will often result in their having a perspective different from the respondent. In performing qualitative interviews, one should be particularly aware of how one's own perspective as a researcher affect how the findings are presented, as well as the interview process. To make sure that the voice of the respondent is being presented in the most genuine way, verifications were performed during the interview. A continuous verification of the information collected during interviews is considered an important step in quality control throughout the process (Brinkmann & Kvale, 2010). After each topic in the interview guide, interviewers would verify to make sure that they had correctly understood the respondent. The interviewer then summarized what the respondent had said during the interview, and then asked the respondent if this was a correct understanding of what had been said. This gave the respondent the opportunity to correct

misunderstandings made by the researcher, who then made sure that the information obtained was accurate.

3.5.3 Methodological limitations

There are some methodological limitations that should be raised concerning both the quantitative and the qualitative study.

Methodological limitations regarding the quantitative study

One possible methodological limitation in the quantitative study concerns the time of the data collection. As several schools were unable to answer the survey during the spring, data were collected both spring and the following autumn. This causing a slightly larger age difference within the sample than originally planned for. This could have had an impact on prevalence, although research shows only a small decrease in the prevalence of victimization within half a year (Olweus, 1993; Roland, 2007). In addition to the age difference this caused between the informants it could also have resulted in that the pupils taking the survey in the spring reported higher levels of victimization than the ones taking the survey in the autumn, as the survey where asking for experienced victimization for the actual school year. Unfortunately, the possible differences between schools collecting data in spring versus autumn is no longer possible to trace.

In addition, there is a methodological limitation regarding the measurements of cyber victimization. The items measuring traditional victimization were related to the school setting, while those measuring cyber victimization were not limited to the school setting. This difference might have influenced the results regarding prevalence, although the results still show that traditional victimization is more prevalent than cyber victimization. As cyber victimization often takes place outside school (Patchin & Hinduja, 2006; Smith et al., 2008), this could result in

less reliable estimates limiting the items regarding cyber victimization to the school setting.

The dataset used in paper 1 also includes information about bullying others, both in traditional ways and by digital means. By including this information in an alternative SEM analysis, the relations could have been compared with the model in paper1. Another approach could have been to construct subgroup of so-called bully-victims and compared these pupils with "pure" victims on symptoms of anxiety and depression for both traditional and cyber victimization. Not using the information about bullying others in paper 1 is a limitation. Although it is interesting, the statistical analysis and the theoretical implications would have demanded too much space to be included. All data comprising the quantitative study were collected only once, which makes it difficult to evaluate internal validity, that is, to determine if mental health problems were caused by being bullied. A longitudinal study would have provided better information on this important question. However, the information on trauma symptoms obtained in the interview study did indicate causality.

Another limitation was that the quantitative study included no information on context, in terms of a holistic approach. It is possible, for example that class-level and school-level issues, and the local community, influence the relationship between being bullied and mental health problems.

Methodological limitations regarding the qualitative study

In the qualitative study, we had to rely on the voices of the victims of bullying. As the victims' response may be influenced by their valuable situation, it would have been interesting to obtain information from others e.g., parents and teachers, and to be able to combine interview data with other material, for example the schools' case documents.

Another limitation related to the sample size, the sample of 9 makes it insufficient to compare the poly victims with the victims of traditional bullying. Although numbers are reported on their different experiences the sample is too small to clearly fulfill the goal to whether there are differences between poly-victims and the victims of traditional bullying. We have however, conducted an additional analysis of the survey data, which is presented in the discussion.

As the interviews are retrospective, the information obtained from them could have been influenced by other experiences both during the rather long bullying period and after the bullying had ceased. Pupils' descriptions of the teacher could also have been influenced by their bullying experience thus selecting a latent instead of semantic approach in the analysis in paper 3 could somehow have weighed up for this. It was important to perform the interviews with respondents where the cases were closed, creating a certain distance from the experience leading to better descriptions.

The fact that several researchers from the research group were also involved in holding interviews might have affected the information obtained during the process. In addition, the issues of social desirability are also a risk when performing interviews, especially since the power balance becomes more skewed when respondents are children.

4 Summary of results

This section comprises a summary of each paper included in this Ph.D. thesis.

4.1 Paper 1

Sjursø, I., Fandrem, H. & Roland, E. (2014). Emotional Consequences of Traditional and Cyber Victimization. *Journal of School Violence*, 15(1), 114-131.

https://doi.org/10.1080/15388220.2014.996718

In this paper, the association between traditional and cyber victimization and the symptoms of anxiety and depression is investigated. The main findings show significant differences between traditional and cyber victimization concerning their correlation with two main emotional problems. A stronger association was found between traditional victimization and symptoms of depression than between cyber victimization and symptoms of depression. In addition, the results showed a stronger association between cyber victimization and symptoms of anxiety than traditional victimization and symptoms of anxiety. There was significantly higher prevalence of traditional than cyber victimization for both genders. The prevalence of being a victim of either traditional or cyber victimization was also significantly higher for boys than for girls.

4.2 Paper 2

Sjursø, I., Fandrem, H. & Roland, E. (2019). "All the time, every day, 24/7". A qualitative perspective on symptoms of post-traumatic stress in long-term cases of traditional and cyber victimization in Norway and Ireland. *International Journal of Bullying Prevention*, 1-10.

https://doi.org/10.1007/s42380-019-00024-8

In this paper symptoms of post-traumatic stress in long-lasting cases of traditional and cyber victimization are explored. The findings show that victims reporting having experienced traditional victimization reported fewer symptoms of post-traumatic stress than poly-victims. Differences were detected regarding the symptoms of intrusive memories, such as fear, difficulty sleeping and behavioral avoidance. Respondents who experienced traditional victimization only described experiencing fear when in school, although poly-victims described experienced fear both in school and in their spare time. Poly-victims were also the only respondents to report difficulty sleeping. Behavioral avoidance was only described in terms of school setting by those respondents having experienced traditional victimization, whereas poly-victims described it both in school and in their spare time.

4.3 Paper 3

Sjursø, I., Fandrem, H., O'Higgins Norman, J. & Roland, E. (2019). Teacher Authority in long-lasting cases of bullying: a qualitative study from Norway and Ireland. *International Journal of Environmental Research and Public Health* ,16(7),19.

https://doi.org/10.3390/ijerph16071163

This paper presents findings regarding whether the pupils who experienced victimization perceive their class teacher as demonstrating what could be defined as an authoritative leadership in long-lasting cases of bullying. The findings show that none of the class teachers are perceived in a way that could be categorized as 'high' or 'medium' in both warmth and control; therefore, none of the teachers fit the authoritative leadership profile. Regarding the concept of control, this paper introduces a new concept, *protective control*. This describes the teachers' control in terms of bullying intervention. We suggest that the control teachers' exhibit toward the student who bully, could also be

described as a form of control in relation to the victimized student. The findings on control show that none of the class teachers were described as ‘high’ or ‘medium’; moreover, more than half the pupils describe their teachers as ‘low’, and just below half as ‘absent’ in terms of control. The findings on warmth show that only one class teacher was described as ‘high’ in warmth, and half the teachers were described as ‘absent’ in warmth.

5 Discussion

This thesis focuses on children who have experienced traditional and cyber victimization, their emotional problems and their perceived teacher support. The research aimed to contribute to knowledge and theory building and to indicate practical implications.

5.1 Contribution to knowledge and theory building

The primary aim of the research was to contribute to knowledge and theory building regarding 1) the emotional problems of traditional and cyber victimization and 2) the importance of the class teacher's support as an aspect of intervention. To meet this aim, we first investigated the associations between different forms of bullying and different emotional problems (paper 1) and explored emotional problems in depth (paper 2). We then explored the victims' perceived warmth and control exhibited by the class teacher in relation to response and intervention regarding traditional and cyber victimization (paper 3).

5.1.1 Prevalence of traditional and cyber victimization

In our sample, the prevalence of being victimized was calculated by using a cutoff point in frequency of 2-3 times a month or more often and by combining scores on traditional and cyber victimization. The percentages shown in the table below present those who were bullied in a traditional way, bullied by digital means or both.

Table 1

Percentages of pupils who were being bullied

Boys	Girls	Total
8.0	4,7	6.4

Pearson's Chi = 13.81, p=.00

We noticed that the total percentages of 6.4 is not very different from the Norwegian figures reported by Wendelborg (2019) and that significantly more boys than girls are bullied. In the Norwegian annual study 4.6% reports traditional victimization and 1.9% reports cyber victimization (Wendelborg, 2019). It should also be taken into account that the prevalence reported in our study is from 2008. Figures from the annual Norwegian survey shows that there has been a decrease in prevalence of pupils reporting having experienced bullying and it seems to have stabilized (Wendelborg, 2019). This could possibly explain why the prevalence reported from our study seems to be somewhat higher compared to the prevalence reported in the annual Norwegian study.

5.1.2. Symptoms of anxiety and post-traumatic stress in traditional and cyber victimization

Much research has focused on the emotional problems of traditional victimization (e.g., Reijntjes et al., 2010; Ttofi et al., 2011). However, as cyberbullying is relatively new, it is important to determine whether this form differs from traditional victimization in terms of the emotional problems involved.

Victimization and symptoms of anxiety

The aim of paper 1 was to investigate the association between traditional and cyber victimization and symptoms of anxiety and depression. The findings showed significant differences between traditional and cyber victimization and symptoms of anxiety and depression. One of the main findings was that there is a stronger association between cyber victimization and symptoms of anxiety than between traditional victimization and those symptoms. This is consistent with the findings by Campbell et al. (2012) and Landoll et al. (2015) and indicates that cyber victimization causes more symptoms of anxiety than traditional victimization.

The aspects of anonymity and publicity involved in cyber victimization are presented as possible reasons for cyber victimization having a stronger correlation to symptoms of anxiety than traditional victimization. However, as our survey is not a longitudinal study, causality must be interpreted with caution.

The relatively strong correlation between cyber victimization and symptoms of anxiety makes it plausible that this victimization is also related to symptoms of post-traumatic stress. However, to the best of our knowledge, no previous study has investigated this issue in depth. Another relevant question is whether the substance of such stress might indicate causality between the bullying history and the symptoms of stress.

Victimization and symptoms of post-traumatic stress

Terr (1991) describes a framework comprising two categories of childhood trauma: type I and type II. Type I trauma describes an overwhelming one-time experience, while type II trauma describes a more long-lasting negative experience, often a relational experience (Terr, 1991; Bath, 2008).

It has been argued that *repetition* of the negative events in victimization makes this a potential traumatic type II experience. Studies find a correlation between traditional victimization and symptoms of post - traumatic stress (e.g., Idsøe, Dyregrov & Idsøe, 2012; Mckenney, Pepler, Craig & Connolly, 2005). This correlation involves the frequency of being victimized and the symptoms of post-traumatic stress. This differs, however, from the risk related to the duration of bullying exposure.

All the respondents presented in paper 2 experienced long-lasting bullying exposure for 1-7 years. One informant experienced victimization for one year, two for two years, one for three years, three for four years, one for six years and one for seven years. Although the sample is too small to draw conclusions, one interesting finding is that the informant who experienced victimization for seven years was the only informant describing bodily activation in the form of trouble breathing when thinking about the victimization. Thus, being exposed for a long time is a risk factor for more symptoms of post-traumatic stress.

Moreover, some differences between traditional and cyber victimization are described regarding both intrusive memories and behavioral avoidance. Although one should be careful to conclude anything because of the small sample this should be discussed in relation to the findings in paper 1 regarding symptoms of anxiety.

Symptoms of anxiety and intrusive memories

Pupils who have experienced both traditional and cyber victimization described more symptoms of intrusive memories than those who experienced only traditional victimization. Poly-victims had difficulty sleeping and described being frightened both in school and at home, while respondents who experienced traditional victimization described being frightened only in school settings.

The findings regarding fear indicate that cyber victimization contributes to more fear in one's spare time, as none of the respondents who did not experience cyber victimization reported this type of fear. Descriptions by the poly-victims of feeling fear both in school and in their spare time could explain the stronger correlation between symptoms of anxiety and cyber victimization shown in paper 1.

The poly-victims were also the only respondents to describe difficulty sleeping. This finding could also be related to cyber victimization having a stronger correlation with symptoms of anxiety than traditional victimization, as shown in paper 1, as experiencing anxiety could also lead to difficulty sleeping (Dyregrov, 2010).

The aspect of *availability* could be a possible reason for the findings mentioned above. Worrying about when victimization will occur, as it could happen in one's spare time or even when one is asleep, easily leads to a higher level of stress and to symptoms of anxiety.

Symptoms of anxiety and behavioral avoidance

Behavioral avoidance can be defined as trying to avoid external reminders of a distressing experience (APA, 2013). For example, behavioral avoidance could result in avoiding certain places. We found that the most commonly described place to avoid was school. This is consistent with previous research showing a correlation between children who experienced victimization and school refusal (Havik et al., 2015).

However, there are reported differences in terms of which external reminders the respondents avoid. The respondents who have experienced traditional victimization describe avoidance behavior related only to the school setting; in contrast, poly-victims describe avoidance as a strategy in both the school setting and during their spare time. This difference could also be related to poly-victims describing experiencing fear both in school and in their spare time, in contrast to respondents who

experienced traditional victimization only reporting experiencing fear related to school settings. In addition, differences in avoidance could be related to the findings in paper 1, in which cyber victimization was found to have a stronger correlation with symptoms of anxiety than traditional victimization.

Poly-victims – prevalence and emotional problems

As the analysis in the first paper showed that both traditional and cyber victimization are correlated with symptoms of depression and anxiety, it would further be appropriate to use the same sample in paper 1 to estimate the level of these symptoms for poly-victims compared to other categories of pupils. The variables of non-victimized, traditional victimization only, cyber victimization only and both cyber and traditional victimization (poly victims) were set up, using being bullied 2-3 times a month as the cutoff point. The percentages of cyber victims only, traditional victims only and poly victims were 2.2, 2.6 and 1.7, respectively.

The means of the symptoms of depression and anxiety were calculated by adding the score on each variable and dividing the sum by the number of items. The means of the symptoms of anxiety and depression were compared using SPSS:

Regarding symptoms of anxiety, those who were not bullied had a mean score of .18, while poly victims had a mean score of 2.06. Those who were traditionally victims only and cyber victims only scored .71 and .74 respectively. Regarding symptoms of depression, pupils who were not bullied scored .62. Poly victims had a mean of 2.08. Traditionally victims only had a mean of 1.21, and cyber victims had a mean of 1.19.

Tukey's post hoc test showed that the differences between cyber victims only and traditional victims only were not significant for symptoms of anxiety ($p=.98$) or for symptoms of depression ($p=.98$). All other differences were significant ($p=.00$). The main conclusion is that poly

victims have a very high score on both symptoms of anxiety and depression compared to all the other categories.

This result corresponds with other findings comparing the emotional problems of poly victims with those of victims of one type of bullying (Brighi et al., 2012; Gradinger, Strohmeier, Spiel, 2009; Villora, et al., 2020).

Notably, the very small and non-significant differences between traditional victims only and cyber victims only in symptoms of anxiety and depression, were different from what the SEM analysis demonstrated (paper 1). The SEM analysis is the most reliable, because it corrects for measurement errors.

5.1.3. Teacher authority

When Lazarus (2006) describes the social support required for children who have experienced trauma and great stress, he emphasizes that good intentions are not enough. Support must be given using practical skills and care. In other words, the recipient must think of the support as something more than the adult merely wanting to help. The results in paper 3 reveal the importance of this idea. None of the teachers portrayed in paper 3 fit the description of an authoritative teacher which is characterized as being high in both the dimensions of warmth and demandingness. However, six of them were described as *neglectful*, meaning absent or low in both warmth and demandingness. This refers to a teacher who is low or absent in both warmth and demandingness. In addition, three of them were described as being *indulgent*, meaning high or medium in warmth and low or absent in demandingness. This could for example refer to a teacher who was good to talk to, but then nothing happened, and the bullying did not stop.

Baumrind (1991) presents the authoritative style as high in the dimensions of both warmth and demandingness. Research has found that

an authoritative school climate is related to lower levels of bullying (Cornell & Huang, 2016; Cornell, Shukla & Timothy, 2015; Gerlinger & Wo, 2016; Gregory et al., 2010). Authoritative classroom leadership has also been found to prevent bullying (Galloway & Roland, 2002). The authoritative style presented by Baumrind (1991; 2013) involves an adult showing warmth and demandingness toward the *same* child. In paper 3, "warmth" and "control" are applied differently; by also relating them to the roles in a bullying case, we formulated a new concept: *perceived protective control*.

The importance of protective control

Research shows that the emotional consequences reported by children who have experienced victimization vary (Kochenderfer-Ladd & Ladd, 2001). The resilience research field has been developing; it has expanded its focus on vulnerable children to include a focus on the socio-ecological factors that generate a stressful situation (Ungar, 2011). This aspect emphasizes that environmental factors could also impact children's individual outcomes, thus making the teacher's role relevant and, in this case, a role involving protective control.

The concept of *protective control* presented in paper 3 takes the concept of control out of its traditional context and uses it slightly differently. Protective control refers to the victims' experiences of the class teachers' control related to bullying intervention. This type of control involves the victims' awareness that the teacher is reassuring them that the bullying is going to stop and is informing them of what is being done to stop it. This type of control is thus related to controlling the demands directed to the one who bullied, which in turn will result in what is called protective control toward the pupil experiencing victimization. It is, however important to emphasize that to perform protective control, it is essential for the teacher to be high in warmth.

A teacher offering protective control to the pupil experiencing victimization could make them feel safer in a situation that could potentially cause a great deal of emotional stress. This is important in making them feel in control of the situation, as emphasized by Perry (2002).

The findings presented in paper 3 show that 5 out of the 9 informants said that the bullying stopped because they changed schools. These were all girls between the ages of 12 and 18 years including 4 Norwegian and 1 Irish pupil. Four out of five mentioned their parents as the ones helping them out in the process. In describing their relation to their teacher at that time, one described a bad relationship. The others described lack of action.

Although the informants presented above changed schools their descriptions of their parents and their teachers are quite similar to those of the 4 informants who did not change schools. The 4 informants (one boy and three girls) who did not change schools also described their parents as active in helping them. When describing their teachers some of them describe a teacher who knew, but who did not do anything. Others described not wanting to tell their teacher about the bullying.

When working with children with emotional problems, it has been argued that control can be achieved by emphasizing the importance of structure, predictability and experienced control (Bru, 2011). Having teachers high in demandingness intervening in bullying could be important in establishing *safety* for the pupils experiencing victimization. These children need a place where they can feel calm, safe and free from bullying (Idsøe & Idsøe, 2012). Safety comprises predictability and transparency (Bath, 2008). For the teacher to contribute to a more predictable and safer environment for the pupil who has experienced victimization, two things are considered especially important. First, the teacher must show that he or she is monitoring the class and in control of the situation by taking appropriate measures toward the child/children

who bully, including measures regarding both face to face and cyberbullying. Second, it is important to provide information to the victim about what is being done to stop the bullying and what the plan is for the immediate and long-term future. These points are, however, important to see in light of the teacher being high in the dimension of responsiveness/warmth as appropriate measures need to be carried out with regards to the victim to make he or she feel as safeguarded as possible.

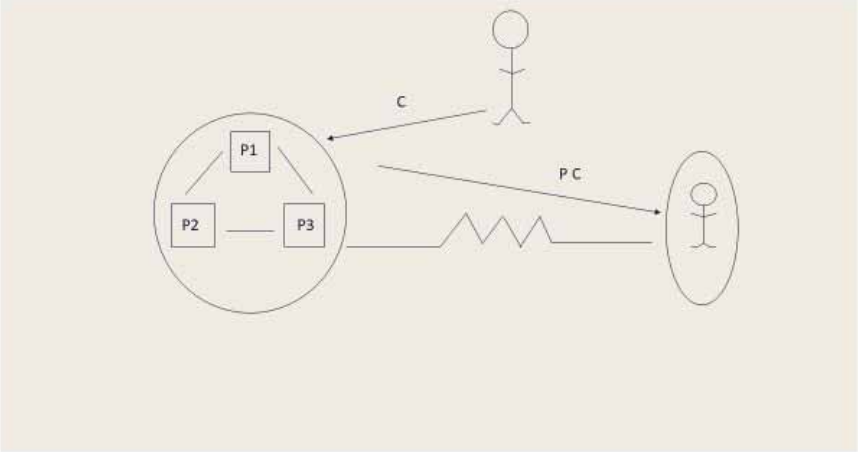

Figure 3. Protective control

Figure 3 is inspired by Roland (2007), in addition the teacher and the concept of protective control have been included. P1, P2 and P3 constitute the ones that perform the bullying. The negative act is represented by the jagged line, and the pupil experiencing bullying is to the right in the figure. The teacher is placed in the upper middle, providing control (C) toward the pupils having bullied, which acts as protective control (PC) for the pupil having been bullied.

We have suggested that the long bullying period could explain why all respondents reported symptoms of post-traumatic stress. The findings

from paper 3 show that none of the class teachers were perceived as 'high' or 'medium' in control. It is possible that this aspect, in addition to being victimized by their peers for a long time, added to the victims' emotional problems. In other words, long-lasting bullying may be even more harmful when the victim feels that the teacher is aware of it but is low in control.

5.2. Implications for practice and future research

5.2.2. Implications for practice

The research literature is rich in terms of the teacher's role in bullying prevention. However, it is not as comprehensive regarding the response when the bullying is reported by the victim and in terms of how to intervene. A sub-aim of this thesis was therefore to contribute with knowledge important to affecting practical work in this area.

The main findings suggest that different types of victimization might lead to partly different types of emotional problems. Knowledge of the different emotional effects of traditional and cyber victimization has important practical implications, as different effects might require different approaches and support from the teacher. As the findings show a stronger correlation between cyber victimization and symptoms of anxiety, this first of all highlights the general importance of teachers intervening in cyberbullying, however it also imply more specifically what kind of behavior that is important that the teacher shows; teachers need to act predictable towards pupils that are cyber victimized, as we know that for people who suffer from anxiety a predictable atmosphere is important (e.g. Bath, 2008; Idsøe & Idsøe, 2012). This might include e.g. giving information of what is happening in lessons in advance. In addition, teachers should inform the pupils who bully of the possible serious emotional problems on their victims, and thus make them understand that the behavior is unacceptable. These aspects must be

taken into account when developing and implementing anti-bullying programs.

As experiencing both traditional and cyber victimization can cause substantial harm, it is important that teachers know how to recognize certain symptoms and create a trauma-sensitive classroom offering both warmth and demandingness.

A main practical implication from our studies is that the teacher is of crucial importance in ongoing bullying cases, not only in preventing bullying, which has previously been the main and important focus. We briefly list below three qualifications that the individual teacher should possess in this regard:

1. Competence in understanding a student's symptoms of various emotional problems, which could have been caused by traditional and/or cyberbullying and ability to act in accordance of what is needed
2. Capacity and will to generally establish good relationships with all the pupils and their parents to obtain important information
3. Efficacy in conducting protective control in bullying cases

Such key qualifications should also be regarded as a collective requirement for a school as an organization. One reason is that that these qualifications stimulate communication and learning among the staff. Equally important is that the pupils encounter an adult culture that is worth modeling.

This important knowledge should be taught and operationalized in all teacher-education and anti-bullying programs so that both teachers and schools are more prepared *when* bullying occurs.

5.2.3. Implications for future research

There should be large-scale longitudinal studies in schools comparing traditional and cyber victimization in relation to emotional symptoms and, in particular symptoms of post-traumatic stress. As part of this process, knowledge about teacher authority and the new concept of "perceived protective control" as related to bullying should be requested. This information, combined with data on, for example, children's vulnerability and contextual factors, would provide many avenues for analysis. If possible, schools comprising one part of the sample could be offered advice regarding how to support victimized pupils, including protective control. Such a design could be combined with qualitative research to learn more about practical issues related to teacher-pupil interactions at different stages in the bullying.

It would also been interesting to compare cases and to interview teachers, with a focus on whether or not the teachers were aware of the bullying, how they intervened in bullying cases, and how this intervention was experienced by the pupils and parents. It would also be important to compare the emotional problems of victimized pupils in cases where the teacher intervened early to cases, where the teacher intervened later on or did not intervene at all to investigate or identify this as a possible risk for development of emotional problems.

As the research in authoritative teachers in bullying cases are scarce it is necessary that future research look more into whether authoritative teachers are indeed more effective to stop bullying and triangulate the perspective of the teacher with the other ones involved, the other classmates and parents.

Although this thesis focuses on bullying intervention, it would also be interesting for future research to investigate teachers' style in the rehabilitation in the classroom following a bullying case. This work would be important because the rehabilitation could also play an important role in reducing the harmful effects of bullying (Finne, Roland

& Svartdal, 2018). Rehabilitation is a field in which research is still rather scarce; however, Finne et al. (2018) emphasize the important role of the teacher in rehabilitation, namely to build a caring and supportive classroom community in addition to providing the necessary authority.

6. References

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Paper I

Emotional Problems in Traditional and Cyber Victimization

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Abstract

Previous studies show an association between traditional and cyber victimization. However, there seem to be differences in how these forms of being bullied relates to emotional problems in the victims. Few studies focus on symptoms of general anxiety and depression as separate variables when comparing traditional and cyber victimization. Self-assessment was used from a sample of 3,046 Norwegian adolescents: 1,583 boys and 1,463 girls, ages 15 to 16 years. Significantly higher prevalence of traditional victimization than cyber victimization for both genders was found. The prevalence of being a victim of either type of victimization was significantly higher for boys than girls. Structural equation models showed significant differences between traditional victimization and cyber victimization and their relation to emotional problems. There was a stronger association between traditional victimization and depressive symptoms than between cyber victimization and depressive symptoms. Results also showed a stronger association between cyber victimization and symptoms of anxiety than between traditional victimization and symptoms of anxiety.

KEYWORDS traditional victimization, cyber victimization, symptoms of anxiety, depressive symptoms, emotional problems, bullying

Emotional problems are an extensive health problem amongst adolescents. Depression is known to be a worldwide disorder and is anticipated to become one of the most prevalent mental health disorders in the future (Børve & Dalgard, 2000; Rosenhan & Seligman, 1989). The Norwegian prescription register shows a strong increase in the use of antidepressants amongst adolescent between 15 and 19 years of age. In addition to this, anxiety and depression are two of the most common mental health issues amongst Norwegian children and adolescents (Skogen et al., 2014). Several studies show a relation between emotional problems and victimization by peers (e.g., Hodges & Perry, 1999; Isaacs, Hodges, & Salmivalli, 2008; Idsøe, Dyregrov, & Idsøe, 2012; McKenney, Pepler, Craig, & Conolly, 2005; Menesini, Modena, & Tani, 2009; Mynard, Joseph, & Alexander, 2000). In the present study, victimization was perceived in the context of bullying, which is seen as an international problem that schools need to address (Craig & Pepler, 2008). In Norway, the first bullying prevention work started in 1983 (Olweus & Roland, 1983). Traditional bullying is usually defined using three criteria: (a) it is a negative action, (b) it is repeated over time, and (c) there is an imbalance of power between the bully and the victim (e.g., Olweus & Roland, 1983; Salmivalli, 2010; Whitney & Smith, 1993). According to Craig and Harels (2004), a worldwide study showed that the prevalence of being bullied two or three times or more in the previous couple of months at the age of 15 was a bit lower in Norway than the overall world mean. The Norwegian percentage for girls is 5.9% and 7.7% for boys, whereas the world mean is 8.4% for girls and 10.7% for boys. Victimization has taken on new forms as children have found new ways of communicating through electronic means, like the Internet or mobile phones.

This can be referred to as cyber victimization. Smith et al. (2008) defined cyberbullying as bullying using electronic forms of contact.

It is still unclear how traditional and cyber victimization are related to mental health problems in the victim in the same way (Beckman, Hagquist, & Hellström, 2012). The field needs more studies that compare traditional victimization and cyber victimization and that look at how these different forms of victimization are associated with the amount and type of emotional problems in the victim. The main goal of the present study was, therefore, to compare the associations between two different types of emotional problems and traditional and cyber victimization among Norwegian tenth-grade students.

Prevalence and Gender Differences in Traditional and Cyber Victimization

Previous studies show that the prevalence of cyber victimization seems to be somewhat lower than traditional victimization (e.g., Auestad & Roland, 2009; Olweus, 2012; Slonje & Smith, 2008). However, several studies find a significant overlap between the two types of victimization (e.g., Auestad, 2011; Gradinger, Strohmeier, & Spiel, 2009; Olweus, 2012; Raskauskas & Stoltz, 2007).

A number of studies on traditional victimization show that more boys than girls are victimized (e.g., Boulton & Underwood, 1992; Lagerspetz, Björkquist, Berts, & King, 1982; O'Moore & Hillery, 1989). However, there is also research that finds no gender difference in the prevalence of traditional victimization. For instance, one study comparing victimization in 35 countries found a relatively small gender difference (Craig & Harel, 2004).

Much of the earlier research on cyber victimization shows no gender difference (e.g., Hinduja & Patchin, 2008; Juvoven & Gross, 2008; Katzer, Fetchenhauer, & Belschak, 2009; Williams & Guerra, 2007; Wolak, Mitchell, & Finkelhor, 2007). However, a few studies show a higher level of cyber victimization among girls than boys (Dehue, Bolman, & Völlink, 2008; Kowalski & Limber, 2007; Smith, Mahdavi, Carvalho, & Tippett, 2006).

Emotional Problems Associated with Traditional and Cyber Victimization

Although there is a lot of research reporting associations between victimization and emotional problems the issue of causality is still not clear. Having emotional problems might be either a consequence of being bullied or a reason for this role (Arseneault et al., 2006; Arseneault, Bowes, & Shakoor, 2010; Hodges & Perry, 1999). There are, however, longitudinal studies that imply that being bullied leads to symptoms of anxiety and depression (Fekkes, Pjipers, Fredriks, Vogels, & Verloove-Vanhorick, 2006; Kim, Leventhal, Koh, Hubbard, & Boyce, 2006). A review article by Arsenault et al. (2010) evaluating being a victim of bullying and the risk of pathology also concludes that being exposed to bullying seems to affect children's mental health, when controlling for family factors, genetic background and symptoms of mental health problems existing prior to the victimization. In addition, one of the most recent longitudinal studies examining psychiatric outcomes of victims of bullying showed that, even when controlling for family hardships and childhood psychiatric problems, victims continued to have a higher prevalence of, for instance, anxiety (Copeland, Wolke, Angold, & Costello, 2013). Evidence from a five-decade longitudinal British birth cohort, following children from birth to age 50, also found that being bullied as a child was associated with higher levels of psychological distress as depression and anxiety disorder (Takizawa, Maughan, & Arsenault, 2014). The findings of these longitudinal studies suggest that peer victimization leads to emotional problems such as symptoms of anxiety and depression.

Although there are few studies that compare traditional and cyber victimization in terms of both symptoms of depression and anxiety, there is a lot of research measuring these aspects separately. Several studies find a positive association between traditional victimization and symptoms of depression (e.g., Isaacs et al., 2008; Rigby, 1996, Kaltiala-Heino, Rimpelä, Marttunen, Rimpelä, &

Rantanen, 1999). Studies also find a positive association between being exposed to cyber victimization and symptoms of depression (e.g., Olenik-Shemesh, Heiman, & Eden, 2012; Ybarra, 2004). In addition, a few studies compare traditional and cyber victimization in relation to symptoms of depression. These studies report a stronger association between cyber victimization and depressive symptoms than between traditional victimization and depressive symptoms (Bonanno & Hymel, 2013; Perren, Dooley, Shaw, & Cross, 2010; Gradinger et al., 2009).

Studies find a positive correlation between traditional victimization and symptoms of anxiety (e.g., Grills & Ollendick, 2002; Nishina, Juvoven, & Wikiow, 2005; Slee, 1995). However, few studies examine the association between cyber victimization and symptoms of general anxiety. In those that do exist, there seems to be a positive association between cyber victimization and symptoms of general anxiety (e.g., Schenk & Fremouv, 2012). We found no studies that compared traditional and cyber victimization only in relation to symptoms of general anxiety. There is, however, one study that compared symptoms of both depression and general anxiety within both traditional and cyber victimization. This study found that cyber victims report significantly higher levels of both symptoms of depression and anxiety compared to victims of traditional bullying (Campbell, Spears, Slee, Butler, & Kift, 2012).

Aims of the Present Study

Based on the aforementioned research we may conclude that studies that have compared traditional and cyber victimization and their association with different emotional problems show inconsistent results. One reason might be that the studies used different samples, analytical strategies, measurements, and methods used for analysis. There is a general need for larger sample sizes, especially as cyber victimization is less prevalent than traditional victimization (e.g., Olweus, 2012). As far as is known, there are few studies that compare traditional and cyber victimization and emotional problems using more sophisticated statistical methods for analysis (e.g. structural equation modeling).

In addition to the methodological aspects, there is a general need for more evidence about the relation between different forms of victimization and different emotional problems. Traditional and cyber victimization may affect children's mental health differently. The main aim of the present study was, therefore, to investigate how traditional victimization and cyber victimization were related to symptoms of general anxiety and symptoms of depression. Gender differences were also investigated. An additional aim was to investigate the prevalence of traditional victimization and cyber victimization among Norwegian tenth-grade boys and girls.

METHOD

Sample and Procedure

The sample in this study comprised 3,046 adolescents living in Norway, 1,583 boys and 1,463 girls. At the time of the data collection the students were in Grade 10 and between 15 and 16 years of age. The participation rate was 81%. Participants were recruited from 63 schools in 27 Norwegian municipalities. Random sampling was carried out as recommended by the Norwegian Census Office on the basis of three dimensions: industrial links, population density in the municipality as a whole, and the municipality's centrality (Statistics Norway, 1994).

Participation was voluntary and based on written parental consent. If the school agreed to participate, the school then distributed a written consent form to the parents. The parents could contact the school to look at details of the survey before making a decision. The National Data Inspectorate approved the study.

The results draw upon data that were part of a national school environment Internet-based survey, which was conducted in 2008. This is a large cross-sectional representative study that focused on students' social and emotional problems and peer and teacher relations in Norwegian primary and secondary schools. Several schools were unable to answer the survey before the spring of 2008. The data were therefore collected in both the autumn and the spring.

The teachers were responsible for organizing the data collection according to standard procedures. The schools were asked to perform the surveys using as few days as possible, ideally only one.

To ensure anonymity, the participants answered the questions by ticking their chosen reply to the questions asked on a digital survey. Participants logged in with a password that could not be traced back to their identity. There were no questions asking for the participants' name. Participants were asked not to talk to any of their peers about their answers while filling out the survey. The school was also asked to place participants in such a way that they could not look at any other participants' answers.

Instruments

EMOTIONAL PROBLEMS

Emotional problems were measured using items adopted from the Hopkins Symptom Checklist (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). Symptoms of anxiety were measured using a four-item scale. The items were: "suddenly scared for no reason," "constantly feeling scared or anxious," "anxiety or panic attacks," "feels anxious and scared." The alpha for the sample was .89. Depressive symptoms were measured using an eight-item scale. The items were: "blaming yourself for things"; "feeling everything is hard going"; "low on energy"; "feeling hopeless about the future"; "worrying or 'stewing' about things"; "feelings of worthlessness or excessive or inappropriate guilt"; "feeling unhappy, sad, or depressed"; and "difficulty falling asleep or staying asleep." The alpha for the sample was also .89.

There were four response categories for the items concerning emotional problems (0 = have not suffered, 1 = suffer sometimes, 2 = suffer quite a lot, 3 = suffer a lot). The scales for both symptoms of anxiety and symptoms of depression recorded the frequency within the last two weeks.

VICTIMIZATION

Before measuring victimization, the students were given a standard definition of bullying in the questionnaire:

> We call it bullying or hassling when one or several students (together) are being unfriendly or unpleasant repeatedly towards a person who can't easily defend him- or herself. This could, for instance, include hitting, kicking or pushing him or her. It is also bullying when students are teased a lot or excluded by the others.

Traditional victimization was also measured inspired by a previous used four-item scale adopted from Bru, Boyesen, Munthe, and Roland (1998) and Roland and Idsøe (2001). All these questions were used except for the general question about being victimized, as this question does not necessarily refer just to traditional victimization, but might also refer to cyber victimization. The three questions included were specific bullying questions regarding: verbal bullying, isolation and being bullied by physical means. The alpha for the sample was .82. The students answered on a 5-point scale (0 = never, 1 = seldom, 2 = 2–3 times a month, 3 = weekly, 4 = daily).

Questions regarding cyber victimization were made for this study. This was measured according to the technology used: Internet or mobile phone. The items were made on the basis of the most common types of cyber victimization: text messages, e-mails, calls on the mobile phone, and pictures/videos.

There were seven items in total in accordance with scales used previously (Smith et al., 2006). Cyber victimization by mobile phone was measured using three items: “bullied by phone calls,” “bullied by text messages,” and “bullied by pictures or movies on the mobile phone.” Cyber victimization by the use of the Internet was measured through four items: “has anyone written to you,” “published text about you,” “published pictures of you,” and “published a movie about you.” The alpha for the sample was .95. All of the items measuring cyber victimization referred to bullying. For the items used in measuring victimization see the Appendix. The students answered on a 5-point scale (0 = never, 1 = seldom, 2 = 2–3 times a month, 3 = about every week, 4 = about every day). Both scales regarding victimization recorded the frequency of victimization during the last school year.

Data Analysis Plan

The conventional data analyses were conducted using SPSS software (SPSS, 2006). In the further investigation of the relation between traditional and cyber victimization and emotional problems, latent variables in structural equation modeling (SEM; Jörskog, 1993) was used. As we predicted a high correlation between both the two types of victimization and the two types of emotional problems, SEM analysis was chosen as this method corrects and assess for measurement errors (Byrne, 2009). The modeling was performed using Mplus (Muthen & Muthen, 2011). Measurement models were first estimated and evaluated separately from the structural model (Jörskog, 1993). A robust maximum likelihood procedure was used fitting the models to the data. This procedure includes tests of fit that are robust according to nonnormality and with standard error. Four main criteria were used when evaluating the goodness of fit: standardized root mean squared residual (SRMR), TuckerLewis Index (TLI), Confirmatory Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). SRMR needs a criterion value close to .08 or below to have a good fit (Hu & Bentler, 1999). The TLI and the CFI indicate an acceptable fit were values are above .90 and an excellent fit where values are above .95. RMSEA values below .08 indicate an acceptable fit and values below .05 indicate a good fit (Browne & Cudeck, 1993). When we compared alternative models, chi-square difference test were used. However, because we applied a Satorra-Bentler scaled chi-square statistic a conventional chi-square differences testing could not be conducted, this because difference between two-scaled chi-square is not distributed as chi-square (Muthén, 2007). Therefore, an adjusted test to account for the missing data was used. Furthermore, the full-information MCR estimator in Mplus was applied.

RESULTS

Traditional and Cyber Victimization in Girls and Boys

To compare the scores of traditional and cyber victimization between boys and girls, a 2 × 2 multivariate analysis (MANOVA) was performed.

Two dependent variables were used: traditional victimization and cyber victimization. Gender was the independent variable. As shown in Table 1 there was a slight statistically significant difference between boys and girls, with boys on a higher level than girls, on the combined dependent variable, $F(2, 2919) = 5.81$, $p = .003$, Wilks lambda = .996; $\eta 2 = .004$. When considering the results for the dependent variables separately, both differences reached statistical significance, using a Bonferroni adjusted alpha level of .025—traditional victimization, $F(1, 2920) = 11.45$, $p = .001$, $\eta 2 = .004$, and cyber victimization, $F(1, 2920) = 6.58$, $p = .010$, $\eta 2 = .002$. To compare the prevalence of traditional and cyber victimization within gender, a t-test was conducted. The results show that there was a significantly higher prevalence of traditional victimization than cyber victimization for both boys and girls.

TABLE 1 Means and Standard Deviation for Traditional and Cyber Victimization Among Boys and Girls

M (SD)

	Boys	Girls	
Variables	(*n* = 1,521)	(*n* = 1,401)	*F*
Traditional victimization	.33 (.73)	.25 (.52)	11.445**
Cyber victimization	.16 (.59)	.11 (.33)	6.58*
t	12.71***	12.43**	

*$p < .05$. **$p < .01$. ***$p < .001$.

Association Between Victimization and Emotional Problems

The association of traditional victimization and cyber victimization with emotional symptoms was studied using SEM. We estimated the measurement for emotional problems as two separate factors: symptoms of anxiety and symptoms of depression. All parameters were constrained to remain equal across gender. This solution showed a good fit: SRMR = .04; RMSEA = .043, 90% CI [.039, .047]; CFI = .96; TLI = .96. In addition, we also tested a one-factor solution for emotional problems, as this is more common. The solution provided a poorer fit: SRMR = .068; RMSEA = .086, 90% CI [.082, .090]; CFI = .85; TLI = .85 $\chi 2$ (4) = 621.12, p >.05.

The measurement for victimization was estimated as two separate factors: traditional victimization and cyber victimization. The two factors were constrained to be equal across gender. The solution provided a poor fit: SRMR = .067; RMSEA = .07, 90% CI [.065, .075]; CFI =.82; TLI = .81. Inspection of the modification indices suggested that the correlation of the residuals of two items measuring cyber victimization (being bullied through mobile phone calls and being bullied through text messages on mobile phones) would give the model a better fit across gender. Opening up for a residual correlation between these items can be explained by seeing calls and text messages as more similar forms of communication than using visual communication such as video or pictures. This might be suggested from our modification index and we, therefore, modified our model by estimating this parameter. When running the new solution we got an acceptable fit: SRMR = .064; RMSEA = .054, 90% CI [.050, .059]; CFI = .90; TLI = .89. In addition, we also tested a one-factor solution for victimization. The solution provided a poorer fit: SRMR = .084; RMSEA = .066, 90% CI [.062, .071]; CFI = .84; TLI = .83; $\chi 2$ (4) = 174.02.

The indices of the final structural model as shown in Figure 1 remained equal across gender and the model provided a good fit: SRMR = .038; RMSEA = .039, 90% CI [.037, .041]; CFI = .94; TLI = .93. As displayed in Figure 1, a statistically significant association was found between both kinds of victimization and symptoms of anxiety and depression. The comparison of the model in Figure 1 with a pairwise constrained model gave a significantly poorer fit, indicating that the associations are significantly different between traditional and cyber victimization, $\chi 2$ (2) = 13, 94. All associations seemed to remain the same across gender.

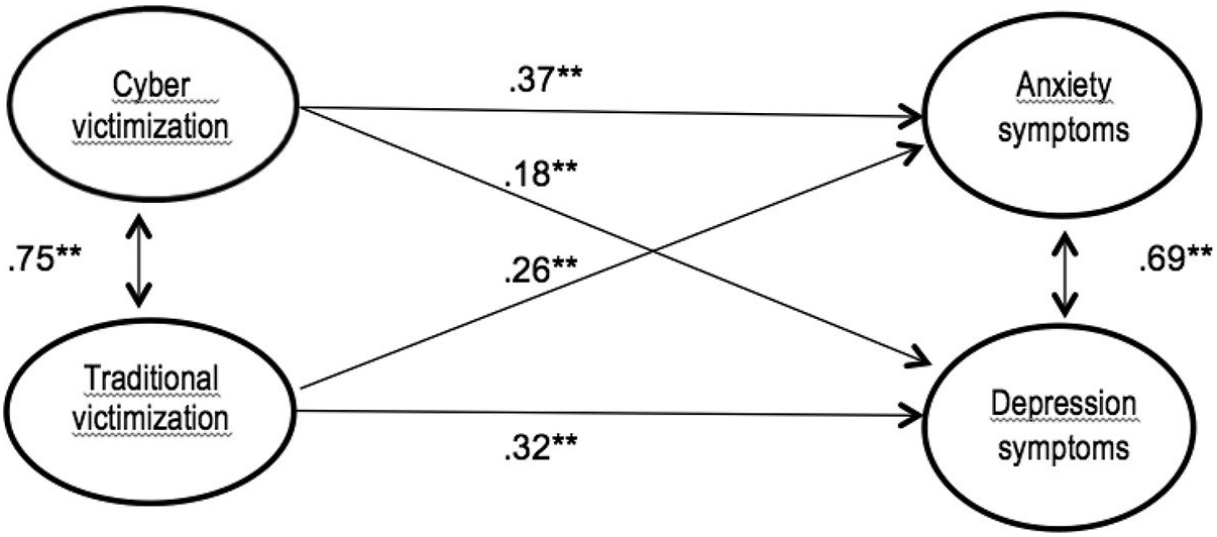

Figure 1 Association between traditional and cyber victimization and symptoms of anxiety and depression.

Note. Goodness of fit: SRMR = .038; RMSEA = .039, 90%; CI [.037, .041]; CFI = .94; TLI = .93. **p < .01.

DISCUSSION

An initial aim of this study was to investigate the prevalence of traditional and cyber victimization amongst boys and girls in Grade 10 in Norway. The findings show that boys report significantly higher rates than girls for both traditional and cyber victimization. In addition, the results show a higher prevalence of traditional victimization than cyber victimization for both boys and girls.

The main aim was to investigate traditional and cyber victimization in relation to emotional problems (i.e., symptoms of general anxiety and depression). The results showed significant associations between both traditional and cyber victimization and symptoms of both anxiety and depression. However, the two different types of victimization differed in the kind of emotional problem associated with them. Traditional victimization had a significantly stronger association with depressive symptoms than with symptoms of anxiety. Cyber victimization, in contrast, had a significantly stronger association with anxiety symptoms than depression symptoms. These results remained equal across gender.

Prevalence of Traditional and Cyber Victimization in Girls and Boys

Our sample reported a significantly higher prevalence of traditional victimization than cyber victimization. These findings seem to correspond well with earlier studies (e.g., Auestad & Roland, 2009; Olweus, 2012; Ortega, Elipe, Mora-Merchan, Calmaestra, & Vega, 2009; Smith et al., 2008). Regarding gender differences the results showed that boys reported slightly higher levels of traditional victimization than girls. The differences were significant. These findings also correspond with previous findings (Boulton & Underwood, 1992; Lagerspetz et al., 1982; O'Moore & Hillery, 1989). Our results also show a slightly higher prevalence of cyber victimization in boys, which differs from most previous findings. This needs to be further investigated. Although previous studies regarding gender and cyber victimization can be said to be inconclusive, most of them do not find significant differences between boys and girls.

Traditional and Cyber Victimization and Emotional Problems

Our findings showed significant associations between both traditional victimization and cyber victimization and both symptoms of depression and anxiety. In the following section, we discuss the results regarding the associations to the two different kinds of emotional problems separately.

TRADITIONAL AND CYBER VICTIMIZATION AND SYMPTOMS OF DEPRESSION

Our findings regarding the association between both traditional victimization and cyber victimization and symptoms of depression correspond well with previous research. However, when comparing the two types of victimization and their association to symptoms of depression, our study showed a stronger association between traditional victimization and symptoms of depression than between cyber victimization and symptoms of depression. This does not correspond with other studies finding that victims of cyberbullying have more depression than victims of traditional bullying (Campbell et al., 2012; Perren et al., 2010; Wang, Nansel, & Iannotti, 2011). However, studies comparing traditional victimization and cyber victimization and their associations with depression are still scarce. Comparing existing research in this area is difficult because research on cyber victimization lacks consensuses regarding its measurement (Tokunaga, 2010; Vivolo-Kantor, Martell, Holland, & Westby, 2014). Campbell et al. (2012) used a different measurement scale for symptoms of depression and anxiety than the ones used in the present study. There are also important differences in the age span of participants. For instance, Campbell et al.'s (2012) sample had an age span from 9 to 19 years. This study used participants who were 15 to 16 years old. As depression seems to increase during adolescence (e.g., Saluja et al., 2004), the stronger associations between cyber victimization and depression in the study by Campbell et al. (2012) might be due to including older students with higher levels of underlying depressive symptoms.

TRADITIONAL AND CYBER VICTIMIZATION AND SYMPTOMS OF ANXIETY

Our results showed an association between both types of victimization and symptoms of general anxiety. When we compared the two types of victimization we found a statistically significant stronger association between cyber victimization and symptoms of anxiety than between traditional victimization and symptoms of anxiety. These findings correspond well with the findings from Campbell et al. (2012), who also found that victims experiencing both traditional and cyber victimization had similar scores as the cyber victims. These findings underline the impact of cyber victimization compared to traditional victimization. A significant aspect that may influence the victims of cyberbullying could be that cyber victimization often happens anonymously (one is not able to see the bully, and thus one does not necessarily know who the bully is; Menesini et al., 2013); in other words, the identity of the bully is unknown to the victim. The anonymity aspect may make the victim feel even less powerful, so the power imbalance could be even stronger in cyber victimization compared to traditional victimization. Another important aspect is the public nature of some cyberbullying (Menesini et al., 2013; i.e., what is written or published might be spread to a large audience). Both these aspects might result in a generalized feeling of being unsafe (Auestad & Roland, 2005; Shariff, 2008). Altogether, in cyber victimization the victim might be even more insecure and scared, which may lead to greater anxiety. There is, however, a need for more research regarding aspects affecting the victims of cyberbullying.

Study Limitations

This study has several methodological strengths. It is based on a large, nationally representative sample with a small age span and a participation rate of 81%. In addition, both traditional and cyber victimization and the two types of emotional problems were measured using several items that aimed to grasp the variety within the variables. Another strength is the use of latent variables within SEM. By the use of SEM, data measurement errors are corrected and assessed. This was important as a high correlation between the two types of emotional problems and the two types of victimization was predicted.

There are other methodological considerations that should be raised. One possible methodological limitation concerns the time of the data collection. Several schools were unable to answer the survey before the autumn of 2008 and the data were therefore collected both in spring and autumn. Thus, there was a slightly larger age difference within the sample than initially hoped. This could influence the prevalence rates of victimization, but only to a very limited degree as there is only a small decrease in the prevalence of victimization as pupils age increase half a year (Olweus, 1993; Roland, 2007).

There is also a methodological limitation related to the measurement of cyber victimization. The items regarding traditional victimization refer to victimization taking place in school whereas the items regarding cyber victimization were not limited to the school setting. This might have influenced the prevalence to some degree. However, the results still show that traditional victimization is more prevalent than cyber victimization. Cyber victimization is a phenomenon that often tends to happen outside school (Patchin & Hinduja, 2006; Smith et al., 2008). Limiting the items regarding cyber victimization to the school setting could result in less reliable estimates of prevalence. As the focus of this article is on associations, these limitations are not seen as a major threat to this study.

Conclusion and Future Studies

More longitudinal studies are needed to be able to draw more certain conclusions about the causes and effects of different types of victimization and different kinds of emotional problems. There is also a need for deeper investigations regarding emotional consequences of different types of bullying, for example by the use of case studies. To be able to describe what might cause more symptoms of anxiety within the victim of cyber victimization it is also important to conduct in-depth studies of a more qualitative character. This may also allow more in-depth comparison of traditional and cyber victimization, in a way that quantitative studies do not allow for.

In Norway, there are already existing school programs that focus on reducing bullying (e.g., Midthassel & Roland, 2011; Olweus, 2005). However, these programs have been in use for some years and provide limited attention to cyberbullying and cyber victimization. The main results of the present study imply that different types of bullying may have different emotional consequences and this needs to be taken into account when implementing anti-bullying programs. Victims of different forms of bullying might need to be supported in different ways as well as be taught different kinds of coping strategies. By implementing the new knowledge from the present research in school programs, teachers also might become better equipped regarding identifying symptoms of different types of victimization and thus better know what to do in helping victims of different kinds of bullying.

COMPETING INTERESTS

The authors have no significant competing financial, professional, or personal interest of conflict that might have influenced the performance or presentation of the work described in this article.

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APPENDIX

Items Measuring Victimization

ITEMS MEASURING TRADITIONAL VICTIMIZATION

- How often have you this school year been bullied in school by being picked on or called names by other students?
- How often have you this school year been bullied by no longer getting to play with others, being isolated/frozen out from other students?
- How often have you this school year been bullied in school by being hit, kicked or pushed by other students?

ITEMS MEASURING CYBER VICTIMIZATION ON THE CELL PHONE

- How often have you this last school year been bullied through conversations on the cell phone?
- How often have you this school year been bullied through text messages on the cell phone?
- How often have you this school year been bullied through pictures or movies on the cell phone?

ITEMS MEASURING CYBER VICTIMIZATION ON THE INTERNET

- How often have you this school year been bullied by someone writing to you on the Internet?
- How often have you this school year been bullied on the Internet by someone posting a text about you?
- How often have you this school year been bullied on the Internet by someone posting a picture of you?
- How often have you been bullied this school year by someone posting a movie about you?

Paper II

“All the Time, Every Day, 24/7”: A Qualitative Perspective on Symptoms of Post-traumatic Stress in Long-Term Cases of Traditional and Cyber Victimizations in Norway and Ireland

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Abstract

This article investigates symptoms of post-traumatic stress in victims of long lasting cases of traditional and/or cyber victimization. The article presents findings from semi structured interviews with nine victims; eight girls and one boy, five Norwegian and four Irish—who had experienced either traditional or both traditional and cyber bullying. The informants were chosen because they had been victims of closed bullying cases lasting from 1–7 years. The findings showed that victims who had experienced only traditional bullying reported fewer symptoms of post-traumatic stress than “poly victims”, i.e., those who had experienced both traditional and cyber victimization. Furthermore, differences were detected between these two groups—victims of traditional bullying and poly victims—regarding when and where the symptoms were experienced and the kind of sub-symptoms that were described. It is important to be aware of these different symptoms when working with children who have experienced traditional and/or cyber victimization to ensure that these children obtain support customized to their needs. The findings could also have practical implications for anti-bullying programs that work with victims involved in both ongoing and closed cases of bullying.

Introduction

“All the time, every day, 24/7” was one informant’s answer regarding how often he worries about being bullied. Bullying is no longer limited to the school setting. Because of continuing technological development, pupils are at risk of being bullied wherever they are, from school settings to their own bedrooms. Being the victim of bullying could have great impact on their mental health and several studies have found a correlation between being a victim of bullying and symptoms of anxiety and depression (Kowalski et al. 2014; Reijntjes et al. 2010). Further, research has found a correlation between being a victim of bullying and symptoms of post-traumatic stress (Idsoe et al. 2012; Matthiesen and Einarsen 2004). However, these studies are few, and no qualitative studies were detected. In addition, to our knowledge, research examining the emotional consequences of traditional and cyber victimizations in long-term cases is nonexistent. This study attempts to contribute with knowledge regarding this, as it investigates long-term bullying cases and, more specifically, how symptoms of post-traumatic stress are reported by victims of traditional and cyber bullying.

Traditional and Cyber Victimizations

The prevalence of pupils involved in bullying varies across studies. Smith et al. (2013) suggest that this inconsistency might be due to different samples, but also different measurements. Concerning measurements, different definitions might be given in the surveys, or definitions might not be given at all. Another reason for inconsistencies between studies reporting prevalence of bullying could be different cutoff points regarding frequency of bullying others and being bullied. A cutoff on for example within the last 12 months will result in a different prevalence than having a cut of on 2–3 times a month.

According to the study EU Kids Online, 15% of Irish pupils between the ages of 9 and 16 years and 18% of Norwegian pupils have experienced traditional victimization within the last 12 months (Livingstone et al. 2011). In addition, 4% of Irish and 8% of Norwegian pupils report being bullied online within the last 12 months. No definition of bullying was given in this questionnaire; the question that was asked to the pupils was "are someone saying or doing hurtful or nasty things to you" (Livingstone et al. 2011). A recent Norwegian study reports lower numbers regarding both traditional and cyber victimizations (Wendelborg 2019). In this study, 4.9% of the respondents reported that they had experienced traditional victimization and 1.9% reported that they had experienced cyber victimization 2–3 times or more the last month. The reason for the lower numbers for both traditional and cyber victimizations might somewhat be explained by the use of a lower cutoff point and the case that a definition of bullying was given in this questionnaire. Bullying was defined as "repeated, negative actions from one or several towards someone who has problems defending oneself. Bullying could be name calling, teasing, exclusion, backstabbing to hit, push or shove" (Wendelborg 2019, p. 5). This definition narrows the behavior asked for compared with the behavior asked for in the EU Kids online study. Moreover, this definition of traditional bullying is in line with the established definition presented for the first time in the early 1980s (Olweus and Roland 1983). The definition of cyberbullying given in the Norwegian survey originates from the original definition of bullying and corresponds with the one used most frequently in international studies: cyberbullying is bullying using electronic means (Smith et al. 2008).

Overlap between traditional and cyber bullying

Children who are exposed to both traditional and cyber victimizations are often referred to as global or "poly-victims" (O'Moore 2014). Although traditional bullying and cyberbullying are presented as somehow different forms of bullying, several studies have reported a large overlap between the two forms (Auestad 2011; Olweus 2012; Raskauskas and Stoltz 2007). Research conducted by Olweus (2012) found this overlap both in the USA and in Norway. In the US sample, 88% of the informants who reported they had been exposed to cyber victimization also reported that they had been exposed to at least one type of traditional victimization. The numbers from the Norwegian sample were even higher, presenting an overlap of 93%. In a study by O'Moore (2012), Irish pupils reported high numbers, as 71% of cyber victims reported that they had been exposed to traditional victimization. However, the numbers vary; in the most recent Norwegian study, 48.5% of the informants reporting having experienced cyber victimization also reports having experienced traditional victimization (Wendelborg 2019). Based on these studies, it seems plausible that many pupils exposed to cyber victimization also seem to be exposed to traditional victimization. It is, however, also important to state that a large percentage of pupils who have experienced traditional victimization have not been victims of cyberbullying.

Emotional consequences of traditional and cyber victimizations

A previous research on traditional bullying shows a substantial relation between being bullied and different emotional problems. A positive correlation has been found between being a victim of traditional bullying and symptoms of anxiety (Hawker and Boulton 2000; Kowalski et al. 2014; Reijntjes et al. 2010), depressive symptoms (Hawker and Boulton 2000; Kowalski et al. 2014; Reijntjes et al. 2010; Ttofi et al. 2011), suicidal thoughts (Holt et al. 2015; Van der Geel et al. 2014), low self-esteem (Hawker and Boulton 2000; Kowalski et al. 2014; Tsaousis 2016), and school avoidance (Egger et al. 2003; Havik et al. 2015; Rueger and Jenkins 2014). Research on cyber victimization and emotional problems has found a correlation between cyber victimization and symptoms of depression (Olenik-Shemesh et al. 2012; Ybarra 2004) and symptoms of anxiety (Schenk and Fremouw 2012; Sjursø et al. 2016).

Cross-sectional studies in Australia and Norway comparing traditional and cyber victimizations and their relation to symptoms of depression and anxiety have shown that cyber victimization seems to have a stronger correlation to symptoms of anxiety than traditional victimization among 9–19-year-old pupils (Campbell et al. 2012; Sjursø et al. 2016). Regarding symptoms of depression, the findings differ; some studies showed that traditional victimization had a stronger correlation with symptoms of depression than cyber victimization (Bonanno and Hymel 2013; Sjursø et al. 2016), while other studies have found that cyber victimization has a stronger correlation to symptoms of depression than traditional victimization (Campbell et al. 2012). In addition to cross-sectional studies, there are also longitudinal studies examining the emotional consequences of cyber victimization when controlling for traditional victimization. One study from Switzerland found that cyber victimization seemed to be a risk factor regarding depression over and above traditional victimization for adolescents (13 years) (Machmutow et al. 2012). Another study from the USA found that cyber victimization predicted negative changes in depression over and above traditional victimization for young adolescents (9–13 years) (Cole et al. 2016). However, there are also inconsistencies between longitudinal studies as Landoll et al. (2015) in their study of adolescents (14–18 years) from the USA found a unique effect for cyber victimization on anxiety, but not depression, when controlling for traditional victimization.

In addition, research has compared victims experiencing traditional versus both traditional and cyber victimizations. These studies have found that “poly-victims” have significantly higher loneliness scores and poorer self-esteem than victims of traditional bullying (Brighi et al. 2012). In conclusion, research seems to find differences in the correlations between emotional consequences and different types of victimization; however, the findings are not consistent.

Bullying as a traumatic experience

Extensive research including longitudinal studies has established a moderate to strong relationship between being bullied and emotional problems such as anxiety and depression.

In recent years, trauma theory has been used to better understand the potential suffering experiences from being bullied (e.g., Idsoe et al. 2012). Such theory concerns the relation between certain events in the past and personal disorders in the present (Brewin 2003).

Trauma can be divided into two types: type I and type II trauma. Type I trauma is an overwhelming one-time incident, for example, an earthquake or the death of a significant other (Terr 1991). Type II trauma can be described as “the experience of multiple, chronic and prolonged, developmentally adverse traumatic events, most often of an interpersonal nature and early life onset” (Van der Kolk 2005, p. 402). As the established bullying definition include repeated negative act, done against someone who has a difficulty in defending themselves (Murray-Harvey et al. 2012; Olweus and Roland 1983), bullying could be experienced as a type II trauma.

Although research on the correlation between being a victim of bullying and symptoms of PTSD is relatively new, the studies that exist have found a correlation both in the workplace (Matthiesen and Einarsen 2004; Mikkelsen and Einarsen 2002; Tehrani 2004) and in school (Idsoe et al. 2012; McKenney et al. 2005; Mynard et al. 2000; Rivers 2004). In addition to these studies, several studies report associations between victimization and symptoms resembling symptoms of post-traumatic stress disorder as, for example, sleeping problems, symptoms of anxiety, depression, irritability, somatic complaints, and lack of concentration (Arseneault et al. 2010; Bowling and Beehr 2006; Nielsen and Einarsen 2012). It has further been proposed that as these health problems may resemble the symptomatology characterizing post-traumatic stress disorder (PTSD), the experience of victimization might lead to PTSD (e.g., Kreiner et al. 2008; Matthiesen and Einarsen 2004).

According to the Diagnostic Statistical Manual (APA 2013), some of the main symptoms of post-traumatic stress are intrusive memories and persistent avoidance. Intrusive memories could be described as flashbacks of the traumatic incidents (Idsøe and Idsøe 2012), which could take the form of repetitive nightmares, discomfort in situations that remind the child of the traumatic events, and physiological unrest as a result of experiencing events that remind him/her of the traumatic incidents (Dyregrov 2010). Persistent avoidance and numbing could reflect either mental or behavioral avoidance. Mental avoidance could be defined as "avoidance of or efforts to avoid distressing memories, thoughts or feelings about or closely associated with the traumatic events" (APA 2013, p. 271). Behavioral avoidance could on the other hand be defined as "avoidance of or efforts to avoid external reminders (people, places, conversations, activities, object, situations) that arouse distressing memories, thoughts or feelings about or closely associated with the traumatic events" (APA 2013, p. 271). There are strict requirements to set the diagnosis of PTSD, and in addition, to fulfill the diagnostic criteria, several of the symptoms need to be registered at the same time. Studies on the correlation between PTSD and victims of bullying usually therefore refer to symptoms of post-traumatic stress and not the diagnosis of PTSD.

Aims of the study

Research on victims of bullying and symptoms of post-traumatic stress is still scarce, although some quantitative studies have been published (e.g., Matthiesen and Einarsen 2004; Mikkelsen and Einarsen 2002; Idsoe et al. 2012; McKenney et al. 2005; Mynard et al. 2000; Rivers 2004). Idsoe et al. (2012) found a very strong positive association between frequency of exposure to bullying and symptoms of PTSD, which is a common result (e.g., Mikkelsen and Einarsen 2002; McKenney et al. 2005). High frequency could in principle, however, reflect both short-term and long-term victimizations, which is of great relevance for symptoms of post-traumatic stress. We are not aware of any study that includes information about the duration of bullying and symptoms of post-traumatic stress. In general, there is a need for more in-depth research on how young people experience bullying, particularly how this relates to traditional and/or cyber victimizations (Spears and Kofoed 2013).

The main goal of this qualitative study is therefore to explore whether and how victims of closed cases of long-term bullying report symptoms of post-traumatic stress. A second goal is to see whether there are differences in the symptoms reported by victims of traditional and/or cyber bullying.

Method

Sample

Our study was part of the larger "Stigma project" comprising interviews about bullying with head teachers, parents, and pupils. The cases included in the present study were localized in Norway and

Ireland. Finding cases that had been ongoing for a long time in addition to being closed recently was challenging and contributed to a restricted number of cases. In Norway, the cases were reported closed by the school administration, and in Ireland, we used closed cases reported to the Anti-Bullying Centre. Ten victims of bullying were interviewed. However, one informant provided too little information about his reported emotional problems and was therefore excluded. The final sample consisted of 2 cases of traditional bullying and 7 cases of both traditional and cyberbullying. The informants ranged in age from 12 to 18, 5 Norwegian and 4 Irish, 8 girls and 1 boy. The cases were defined as long term and were reported to have a duration between 1 and 7 years. The 2 cases of traditional victimization were reported to last for 1 and 2 years. The 8 cases of both traditional and cyber victimizations were reported to last from 2 to 7 years.

Access and Ethics

Ethical committees in both Norway and Ireland were informed about the study, and the study was approved in both countries. The informants and parents were first informed about the study by receiving a letter containing information. The parents of pupils under the age of 18 years filled out a parental consent form and were then contacted by phone to set a date for the interview. In addition, consent was received from all the informants. Eight of the informants were below 18 years of age and received information about the research customized to their age. In addition, all the informants were told they could withdraw from the study at any time.

Data Collection and Analysis

The interview guide was piloted before use and was originally written in Norwegian before being translated into English for the interviews in Ireland. In Ireland, the Norwegian researcher who also is fluent in English conducted all the interviews to secure the same meaning in both countries. In Norway, three members of a research group addressing bullying conducted the interviews, which lasted from 30 to 90 min. The interviews were conducted between 1 and 12 months after the cases were closed. The interviews were held in an out-of-the-way room in the child's school or in a private setting and were tape-recorded.

The informants were all presented with the same definition of bullying before the interview started. The definition used was based on definitions from previous research on bullying (Olweus and Roland 1983; Olweus 2012; Smith et al. 2008) as bullying was defined as a negative act, with an imbalance of power, towards someone who cannot easily defend himself/herself. In addition, it was stated that "bullying can happen in different ways. It is, for example in traditional bullying, common to divide between relational, verbal and physical bullying, the latter is not relevant regarding cyberbullying as cyberbullying contains using electronic means."

The interviews were semi-structured; thus, the interview guide had a list of relevant themes selected for the Stigma project: how the bullying started and ended, description of specific episodes, who they told about the bullying, experienced emotional problems and social network, and what was done by the school. The informants were probed for further elaboration.

The tape-recorded interviews were transcribed thoroughly, inspired by standardized methods by Kvale and Brinkmann (2010). The transcribed interviews were transferred to the Nvivo 11 program for analysis. A stepwise analysis was performed. In the first step, all the interviews were read through to get an overview of emerging themes related to experienced emotional problems. During a second read, the descriptions regarding emotional problems were gathered in one main node. In the third read, the dominating themes relating to the description of different types of emotional problems were identified. The different themes emerging were as follows: fear, problems concentrating, trouble sleeping, and avoidance. The second step in the analysis was a thematic approach to identify, analyze, and report the patterns found (Braun and Clarke 2006). Here, a theoretical approach was used rather than inductive, fitting the data in to the pre-existing coding frames which related to the symptoms: intrusive memories

and avoidance resulted in the main nodes; intrusive memories and avoidance. These were further divided into sub-nodes where this was appropriate. Intrusive memories were divided into the following: feeling frightened and anxious, problems concentrating, and having trouble sleeping. Avoidance were divided into mental and behavioral avoidance.

Findings

Two of the informants reported experiencing only traditional victimization, while seven reported experiencing both traditional and cyber victimizations. None reported experiencing only cyber victimization. All the informants, independent of type of victimization, provided descriptions that could be categorized into some of the main categories of symptoms of post-traumatic stress. However, differences were detected between the victims of traditional bullying and the poly-victims regarding the kind of symptoms they experienced and when and where they experienced the symptoms. The presentation of the findings will be structured according to the main nodes: intrusive memories and avoidance. These categories will further be divided into the mentioned sub-nodes dependent on the symptoms described by the informants.

Intrusive memories

Fear and worrying

The informants who had experienced traditional victimization described fear related specifically to what might happen during recess: “I was always thinking about what would happen during recess, what could happened, what would happen, if I was going to be by myself or not?” (Norwegian girl, 13). According to the informants who had experienced traditional victimization, the fear and worrying they described was related to the school setting only.

The poly-victims also reported being scared in school: “I’m scared of them, they were very very popular in my class.” The young girl who said this also described being scared of her phone when on her way home: “I was just too afraid to look at it” (Irish girl, 17). Another informant described being frightened in school: “I was kind of thinking maybe they’ll do this, maybe they’ll do that, like so it was kind of like still in the back of my mind, you know.” Some of the poly-victims also described experiencing fear in their spare time: “I’d kind of be like eh, just thinking, ‘is she plotting something?’ or like yeah. Like if I saw she was typing, I’d be like panicking or something. I’d be thinking maybe she is doing something even bigger now, maybe she’s thinking of something bigger to do” (Irish girl, 13). For the poly-victims, fear and worrying was related to both the school setting and their spare time.

Problems Concentrating

Having problems concentrating seemed to be mainly related to the school setting: “I was always looking out, I had eyes in my neck in a way, always following everything else but what the teacher was saying” (Norwegian girl, 14), “I was just like keeping my head down, just not paying attention to anything. I was, like I was occasionally barely hearing the teacher calling my name to hear if I was alright” (Irish girl, 18). The differences between school and home were also described: “At home, I do not have that much to concentrate about, but when it comes to school, it has ruined my grades a little bit. Everything that has happened” (Norwegian girl, 12). Problems concentrating were reported by both informants having experienced traditional victimization and poly-victims.

Although problems concentrating seemed to be mostly related to the school setting, one informant described how thinking about bullying affected his concentration all the time. In response to the

question “Did you think about this when not on the internet as well?,” the informant said, “All the time. Every day. 24/7. I couldn’t sleep, couldn’t eat. Could barely go to school” (Irish boy, 18). This informant had experienced both traditional and cyber victimizations.

Trouble Sleeping

Over half of the poly-victims reported having difficulties sleeping: “I can almost not remember sleeping” (Norwegian girl, 17) and “I’ve had trouble sleeping. I slept a couple of nights, then I almost didn’t sleep at all; I was awake all night and only slept for a couple of minutes” (Norwegian girl, 12). In addition, one informant described how thoughts about the victimization affected her sleep: “Like if it just happened that day, I’d probably like be just thinking about it, but like eventually go to sleep” (Irish girl, 13). Trouble sleeping was described only by the poly-victims.

Avoidance

As avoidance can be divided in to behavioral and mental avoidance (APA 2013), the findings regarding avoidance is categorized according to this.

Behavioral Avoidance

Behavioral avoidance was described by all the informants. Both informants having experienced traditional victimization and poly-victims described not wanting to go to school: “I hated school, I wanted to do anything other than go to school” (Norwegian girl, 13), “I just wanted to be at home” (Norwegian boy, 8), “I could barely go to school” (Irish boy, 18), and “I started missing school more and more” (Irish girl, 18). The informants also described avoiding certain places when at school: “I just didn’t want to see her in school, I’d be kind of afraid to go in to class just in case she was there. Then, sometimes she’d be at the gym, so I’d be like, ok, I can’t go to the gym, so I’ll just stay inside, you know” (Irish girl, 13).

Both informants having experienced traditional victimization and poly-victims also described faking sickness when explaining how they were able to avoid going to school: “I’d never let myself stay home sick long enough to need the doctor. I was always back in, but yeah, I was always back sick again a few days later, but I put a little thought into it; I was faking sick on Saturday to make it look like I hadn’t suddenly turned sick. I was always rather vague with the symptoms as well” (Irish girl, 18). Many of the informants described Sundays as the worst day of the week because it was the day before school started: “Really, I always dreaded going back to school after Sunday. In fact, the whole Sunday was ruined” (Norwegian girl, 17). One informant described avoiding school as a kind of sickness and that it was a necessity to be able to face the next day: “You’re able to face the next day if you take one day off. It’s a sickness that people don’t understand, but it’s still sick” (Irish girl, 17). The most common form of behavioral avoidance described of both informants having experienced traditional victimization and poly-victims was avoiding certain places, and the most frequently mentioned place to avoid was school.

In addition to school, some of the informants described other specific places they avoided in their spare time: “I avoided birthday parties, didn’t bother having them either. I tried ones when I was twelve, cause mum was making a big deal about being twelve. At that time I was on crutches cause I had a swimming injury. And they all just went on the trampoline. So I ended up sitting inside, watching telly cause I wasn’t allowed to go on the trampoline obviously” (Irish girl, 17). The same informant also described avoiding the school bus: “I used to think about the bullying on the way to school on the school bus, so I got in the habit of cycling to school” (Irish girl, 17). This girl had experienced both traditional and cyber victimizations.

Behavioral avoidance also included avoiding certain people by, for example, choosing isolation: “I was afraid of getting bullied again, so I kind of, sorting out books in the library seemed a nicer option than talking to the girls at lunch” (Irish girl, 17), “I just sat at the table by myself, but it was more out

of choice, ‘cause like at that point, I had nothing to say to them. I willingly didn’t want to talk to them. I was generally avoiding anyone I knew that had any link with it” (Irish girl, 18). In addition, some of the informants chose to be with people other than those bullying them: “I kind of avoid people she knows” (Irish girl, 13). “I hang out a lot with younger children” (Norwegian girl, 12). Avoiding certain people was described by both informants having experienced traditional victimization and poly-victims.

One informant described the Internet as a way out, a means of fleeing reality: “I became very antisocial, living my social life on the internet instead. I could live a totally different life there” (Norwegian girl, 17). This informant had experienced both traditional and cyber victimizations.

However, other poly-victims described the Internet as a problem they wanted to avoid, and some blocked the people who were bullying them: “I blocked her from Instagram so she can’t see any of my pictures or comment on anything, so…” (Irish girl, 13). In addition to blocking, some of the informants left places on the Internet where they had experienced bullying: “I deleted her from Skype. Left the group and the website” (Irish boy, 18). The informants describing the Internet as something they wanted to avoid was only the informants having experienced both traditional and cyber victimizations.

Mental Avoidance

A strategy of mental avoidance seems to be to shut off one’s feelings: one girl said, “I just block it out” (Irish girl, 17). Other informants described a process of repression: “Actually, I can’t remember. I almost can’t remember anything because I’ve used so much time trying to repress it” (Norwegian girl, 17 “I just kind of kept it dead inside, you know” (Irish, girl, 13). This is only reported by poly-victims.

Differences Between Victims of Traditional Bullying and Poly-Victims

The victims of traditional and traditional and cyber victimizations described many of the same symptoms; however, differences were detected. The poly-victims over all described more symptoms related to both intrusive memories and avoidance than the informants having experienced traditional victimization. Concerning intrusive memories, there were differences between the two groups of informants regarding both fear and trouble sleeping. The informants having experienced traditional victimization reported experiencing fear and worry only in school whereas the poly-victims reported experiencing fear and worry both in school and in their spare time. Poly-victims were the only ones reporting having trouble sleeping. Differences between the two groups were also detected regarding avoidance. Both groups of victims reported behavioral avoidance; however, only the poly-victims described having experienced mental avoidance.

Discussion of findings

The main goal of this study was to explore whether and how pupils having experienced long-term victimization reported symptoms of post-traumatic stress, and a subgoal was to see if there were differences between the description of the informants having experienced only traditional versus victims having experienced both traditional and cyber victimizations. The overall findings show that all the informants describe emotional symptoms that could be associated with symptoms of post-traumatic stress in the form of intrusive memories and/or avoidance. There were, however, interesting differences between the descriptions of symptoms from the informants having experienced only traditional and the informants having experienced traditional and cyber victimization.

Experienced Fear

One of the main differences regarding the descriptions of symptoms between informants having experienced traditional and poly-victims can be related to where they experience fear. The findings show that the informants having experienced traditional victimization only describe fear related to the school setting; however, the poly-victims experienced fear not only in the school context, but also in their spare time. The anxious feelings seemed to occur where the informants had experienced victimization; thus, the informants who had experienced victimization in school experienced fear and worrying in school settings, and the informants who had experienced victimization both in school and at home on their phone, or computer, described feeling fear and worry in both places. This result may be related to what Dyregrov (2010) described as discomfort in situations that remind one of the traumatic event. However, the fear experienced in school for poly-victims may also be related to what happened in the spare time as social media makes them constantly available. Research shows that there is a stronger correlation between cyber victimization and symptoms of anxiety than traditional victimization and anxiety (Campbell et al. 2012; Sjursø et al. 2016). This anxiety could affect the lives of the poly-victims both online and offline, thus outside and in school. Also, the aspect of publicity (Slonje and Smith 2008) may contribute to the feeling of fear both places independent of where and when the bullying has happened.

Trouble sleeping

In addition to differences regarding where the informants describe they have experienced fear, the findings show that only the informants having experienced both traditional and cyber victimizations report having trouble sleeping. Research has shown a correlation between being bullied in general and trouble falling asleep. One study found that 20.3% of girls being bullied reported that they often had trouble sleeping compared with 8% in the non-bullied group (Haddow 2006). In addition to this, another study found that cyberbullied youth were more likely to have sleep disturbances than non-bullied youth (Låftman et al. 2013). Having thoughts about the traumatic events is a well-known characteristic distinguishing the traumas of childhood. Intrusive memories could, for example, make falling asleep difficult (Terr 1991).

There could however be many explanations for why there seems to be differences regarding trouble sleeping between the informants who have experienced traditional victimization and the poly-victims. The description of differences related to feelings of fear and worrying in school and at home could also be seen in relation to the differences in the sleep-related issues described by the informants. The fear and worrying in their spare time only described by the poly-victims could lead to trouble sleeping.

Another explanation could be related to the poly-victims being more prone to having emotional problems. This could again make them more vulnerable to sleep-related issues on a general basis. Research has shown that being exposed to both types of victimization is more emotionally challenging and is significantly correlated with, for example, being lonelier and having greater risk for depression and suicide (O'Moore 2014).

Avoidance

Differences between the informants having experienced traditional victimization and the poly-victims are also found related to behavioral avoidance. However, many of the informants independent of type of victimization describe not wanting to go to school. This phenomenon is supported by previous research (Egger et al. 2003; Havik et al. 2015; Rueger and Jenkins 2014). Only poly-victims describe behavioral avoidance outside the school setting for instance avoiding birthday parties and different social media sites. The reasons for this could be many, however, as the findings also show that the poly-victims describe fear and worrying in their spare time, compared with the informants having only

experienced traditional victimization, might be a contributing factor to being the only ones who describe avoiding places also in their spare time. The description of avoiding the social media is also supported by other studies. Research on cyberbullying and coping has for example shown that 24% of victims choose online avoidance instead of trying to fix the problem (Livingstone et al. 2011). Although online avoidance could lead to a short-term solution for the victims, O'Moore (2014) emphasizes that one limitation for avoiding or blocking a cyberbully simply could be that they create new nicknames and new accounts, as their accounts are getting blocked. When examining which coping strategy is the most successful in reducing the negative emotions, research finds that problem-focused coping led to fewer health complaints than trying to avoid the problem (O'Moore 2014).

To sum up, the overall conclusion seems to be that all the informants independent of what type of victimization experienced describe what could be characterized as symptoms of post-traumatic stress. This could indicate that having experienced victimization over a long period of time in itself could cause symptoms of post-traumatic stress. Further, this explorative study indicates differences regarding symptoms of post-traumatic stress and informants having experienced traditional versus traditional and cyber victimizations when it comes to experienced fear and worrying, sleep-related issues, and behavioral avoidance. Overall, these findings correspond with earlier research findings showing that poly-victims seem to experience more symptoms of anxiety than victims of traditional bullying (Brighi et al. 2012). Having more symptoms of anxiety could make poly-victims more prone to developing symptoms of post-traumatic stress and further down the line possibly PTSD, as PTSD is a serious anxiety disorder.

Practical implications

There seems to be some different results in research regarding what emotional problems are related to traditional and cyber victimizations. It is therefore important to be aware of that experiencing both types of victimization might result in different emotional consequences than having experienced traditional victimization.

When working with pupils who have had different experiences with victimization, teachers should be sensitive to the occurrence of possible symptoms of post-traumatic stress and be aware of that these pupils might have different ways of reacting than pupils who have not experienced victimization, for example, to be aware that school could be a place related to a lot of fear and therefore an arena that these pupils may try to avoid; in addition, the fear also affect the life outside school, especially for the pupils experiencing victimization outside school. Thus, some of the pupils are living in a constant state of fear, which might affect their life in school and at home and even their sleep. It is also important for the teacher to follow these pupils so close that they manage to identify the symptoms and thus can advise them to get help.

This could have practical implications for anti-bullying programs as the focus her often has been related to stopping the bullying; however, the descriptions of the emotional problems from informants having experienced victimization indicate the need for rehabilitation after the bullying has stopped. Finne et al. (2018) suggest using what they refer to as the model of relational rehabilitation in this work. This model includes three steps: (1) ensuring teacher authority, (2) redistributing power and promoting a supportive class community, and (3) providing social emotional learning to the entire class. Ensuring teacher authority is argued to be important for having the rehabilitation process as having a weak teacher would not be productive. As the relational structure in a class often will be in a vacuum for a certain period after terminating bullying, Finne et al. (2018) suggest that the second step includes screening roles, relational practice, building alliances, and promoting a supportive class community. Working with the third step, they emphasize the importance of social support and prosocial interaction in the work with pupils having experienced victimization and how this can

function as a buffer for the negative effects of bullying. Social emotional learning (SEL) programs including elements from cognitive-based theory (CBT) are recommended for concrete work in the class that could have a positive effect regarding for example internalizing problems for pupils having experienced victimization. In addition to this, social perception training (SPT) is suggested as a program that could be beneficial for school classes in need of rehabilitating their relations and social structure (Finne et al. 2018).

Limitations

First, this study could have limitations related to the interviews being retrospective, as the informants could have been influenced by the life they lived after the bullying stopped. However, it was important to perform the interviews with informants whose cases were closed because this could create a certain distance from the experience, which, again, could lead to better descriptions.

Second, several researchers were involved in the data collection, which may have offered the informants different opportunities to talk about their problems; however, as our aim was not to compare cases, this is not seen as a serious threat to our study.

Third, the phenomenon of social desirability is also a risk when interviewing informants, especially since the informants were children, rendering the power balance even more skewed. A method that could narrow the chances of this could, for example, include diagnostic tests that could contribute quantitative information regarding symptoms.

Further research

There are many questions still to be answered. Further research could for example include qualitative interviews of teachers and parents regarding the symptoms of post-traumatic stress already described by the informants in this study. Another interesting study could be to interview the same informants about symptoms of post-traumatic stress 4 years later, to see if the symptoms are as strong as previously described. The findings also raise important questions that would be interesting to investigate further using a larger sample. It would for example be interesting performing a large-scale quantitative study to investigate the correlation between symptoms of post-traumatic stress and different types of victimization. In addition, these findings could be controlled against for example factors like teacher authority. This is to investigate if the teacher's warmth and protective control (Sjursø et al. 2019) could have an impact on the symptoms reported by the informants.

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Paper III

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Brief Report

Teacher Authority in Long-Lasting Cases of Bullying: A Qualitative Study from Norway and Ireland

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Abstract: A growing body of research shows a correlation between an authoritative school climate and lower levels of bullying. One objective of this study is to conceptualize authoritative intervention in bullying cases. A second goal is to explore whether, and how, the pupils, having experienced traditional and/or cyber victimization, perceive that the class teacher is demonstrating authoritative leadership when intervening in long-lasting cases of bullying. Class teacher refers to the teacher that has a special responsibility for the class. The article presents the findings from nine semi-structured interviews with four Irish and five Norwegian pupils. The informants were between 12 to 18 years of age and had experienced either traditional victimization or both traditional and cyber victimization for 1 to 7 years. The informants were selected because their cases had been reported as resolved. The findings showed no descriptions of the class teacher that appeared to fit with the authoritative style of leadership, both high on warmth and control. The possible practical implications of these findings are discussed.

Keywords: traditional victimization; cyber victimization; bullying; teacher styles; authoritative leadership; warmth; control; class teacher

1. Introduction

Bullying can change a victim's view of the people surrounding them. It can lead to lack of trust and disappointment towards peers and a lack of involvement, but it can also evolve into disappointment in teachers. This highlights the importance of having caring and competent teachers in school who make it easier for the pupils to cope with bullying.

1.1. Authoritative Classroom Leadership

The authoritative style, which is high on control and high on warmth, appears to be the adult role that produces the best results for a child's development [1–3]. However, this important insight does not necessarily mean that such leadership is the best way to handle bullying.

When studying the concept of authoritative classroom leadership [3–6], research refers to the first of four parental styles, introduced by Baumrind [1,2]. The four styles are based on two dimensions: Degree of control/demands and degree of warmth/nurturance. Authoritative (high on warmth, high on control), authoritarian (low on warmth, high on control), indulgent (high on warmth, low on control), and neglectful (low on warmth, low on control) are the four styles [1,2]. Control could be defined as "enforcing demands for appropriate behavior" [3] (p. 123). Warmth could be defined as

supporting the child's agency and individuality in addition to being sensitive and responding to the needs of the child [3].

Roland and Galloway [7] found a positive correlation between teacher authority in the classroom and low levels of bullying and that improved teacher authority in the classroom reduced bullying [8]. One study has found a relationship between victimization and classroom climate that has low levels of caring, warmth, and support [9]. Thornberg, Wänström, and Jungert [10] found that students belonging to a classroom with an authoritative climate, measured from the students' perspective, were less likely to experience victimization in school. In addition, they found that an authoritative classroom appears to be related to greater defense and less reinforcement from peers when bullying is happening.

Bullying is predominantly proactive aggression [11,12] and adult control reduces this aggression [7]. Teacher authority also tends to improve teacher–pupil relations and thereby pupil–pupil relations, which stimulates the pupils to support and protect each other [7]. This could indicate that authoritative leadership on the part of the teacher is positive when intervening with bullying, and not just for prevention. To our knowledge, there have been no studies looking directly at teacher style in relation to intervening for victims.

1.2. Perceived Authoritative Intervention

A challenge is that authoritative classroom leadership is described as how to address one unit, for example a pupil or a class [3,7]. A bullying case is a strongly differentiated social system comprising at least a bully and a victim. Furthermore, according to Marzano [13], different reactions to, or aspects of, the authoritative style is important to emphasize dependent on what behavior is shown. Thus, teacher authority may be differently perceived according to the roles one has in such a case.

Victim-perceived authoritative intervention has, therefore, to be defined according to teachers' warmth and control towards both the victim and one or more bullies, as the victim presumably sees it. It is reasonable, to assume that the victim wants the teacher to demonstrate warmth towards her or himself, in other words that the warmth dimension of authority is highly relevant for the victim. Another question is how the teacher should calibrate such empathy towards a child who is suffering from bullying. What the victims say about warmth related concerns they receive from the teacher is important.

The control dimension of authority is different from warmth when seen from the victims' perspective. When the communication with the teacher is about the ongoing bullying, the victims may feel humiliated if the teacher profiles control towards them. The control dimension is, however, interesting when related to the safety of the victim, and we suggest calling this 'perceived protective control'. By this, we mean whether the victim realizes that the teacher is willing to stop the bullying and/or capable of stopping the bullying. Again, it is interesting to disclose how the victims of long-lasting bullying discuss this.

1.3. Aims of the Study

We explored how the victims described the bullying situation, and how the cases ended. The first objective was to conceptualize authoritative intervention in bullying cases, from the assumed perspective of the victim. A second goal was to explore the experiences and understanding of pupils who have been bullied in regard to how teachers responded when the bullying was occurring.

2. Method

2.1. Sample

A convenience sample was used [14]. We used this because of the challenge of finding informants who have been victims of bullying and who were willing to be interviewed. In our case, professional connections were used, and the sample consisted of cases reported to the national centers working

with bullying in Norway and Ireland. The inclusion criteria for the sample were that the cases should have been considered as bullying according to a standard definition: A negative repeated act, against someone who cannot easily defend themselves [11,12,15] resolved within the last year, the pupils had not themselves bullied others and the victim was comfortable talking about the victimization. In addition, to increase the possibility of finding informants, the age span was set from 8 to 18 years.

The informants were interviewed in Norway and Ireland in 2014. The school administration had reported the cases as resolved in Norway, and the Irish cases were resolved cases reported to the center. We interviewed 10 informants aged 8 to 18 years using semi-structured interviews: Of the 10 informants, 6 were from Norway and 4 from Ireland, including 2 boys and 8 girls. One interview provided too little information about the teacher and was therefore excluded. In all, there were 9 cases: 2 cases were victims who had experienced traditional bullying and 7 cases were victims who had experienced both traditional and cyberbullying. No cases included only cyberbullying.

2.2. Access and Ethics

The ethics committees in both Ireland and Norway received information about the study and both committees approved the study. Prior to the study, the informants and the parents received letters with information about the study. The parents with children under the age of 18 were asked to fill out a parental consent form before they were contacted by phone to set a date for the interview. All the informants below the age of 18 were given information about the study customized to their age. They were also told that they could withdraw from the study at any time. Being a member of a vulnerable group also gives these children an important voice and could, as Dalen [16] asserts, contribute to new and important information that could improve the situation for children experiencing similar events.

2.3. Data Collection

The data collection was conducted using individual qualitative semi-structured interviews, jointly constructed by the members of the research team. Originally, the interview guide was written in Norwegian and translated into English for the interviews in Ireland. Members of the research group addressing bullying were the ones conducting the interviews. In Ireland, a Norwegian, who is also fluent in English, conducted all interviews to secure the same meaning in the two countries. The interview guide had different themes that were to be explored with the participants. The main themes were: Their experience of being bullied from the beginning of the bullying to the resolution of the situation, some of the episodes they remembered well, communication about the bullying, if and how the bullying affected their life in general, the investigation and what was done by the school, what measures were attempted and what social support did they receive, how they felt emotionally and how the bullying affected their life in school and also their spare time, their relationships with the teacher, parents, and other pupils.

The interviews were held in a private setting or a private room in the school, lasted from 30 to 90 min, and were tape-recorded. The interviews started with small talk, to make the informants as relaxed as possible before they were asked to talk about their bullying experience. The same definition of bullying was presented to all the informants before starting the interview. The definition stated that bullying is a repeated aggressive act, including an imbalance of power, against someone who cannot easily defend themselves. The interviews were transcribed using standardized methods agreed upon in the research group, inspired by the description given in Kvale and Brinkmann [17].

2.4. Data Analysis

The first step in the analysis of the interviews was to read through of all the interviews to get an overview of emerging themes regarding how teachers were described. The interviews where read through a second time, and during this read through all the descriptions of the teachers were gathered

under one main node 'teacher descriptions'. In further analysis, everything that was gathered under 'teacher descriptions' was read through and only the descriptions related to the class teacher were chosen for a new main node 'class teacher'. As we read through the node 'class teacher' focusing on themes relating to the class teachers support of the informants, two themes emerged; the class teacher offering emotional support, and the class teacher stopping the bullying. The second step was to use a thematic approach to identify, analyze, and report on patterns or themes that were found within the data [18]. Rather than an inductive, a theoretical approach was used, fitting the data into pre-existing coding frames [17] i.e., the two aspects of the authoritative teacher style; warmth and control. In this step of the analysis, also a semantic rather than a latent approach was used, meaning that what a participant said was more important than going beyond the semantic content of the data to identify the underlying ideas, assumptions, and conceptualizations [18]. For analysis, the qualitative data analysis software NVivo 12 (QSR International, Melbourne, Australia) was used. This program was used for storage and sorting of the data in addition to being helpful in the process of categorizing and classifying the data thematically. The first read through was done by two researchers, while the latter analysis was done by only one researcher, but with a continuous check of the interpretations by one or two other researchers in the team. If there were disagreements, a third party was involved.

3. Findings

The first section will cover descriptions of how the bullying happened and how it stopped. Further, the findings will be presented relating to the two main themes that occurred from our data: Class teacher showing control and class teacher showing warmth. As different degrees and aspects of warmth and control shown by the class teacher were described, the main node of control and warmth was divided in to lacking, low, medium, and high. A teacher that had a high or medium on both control and warmth would be categorized as authoritative. The findings, however, showed that none of the nine informants perceived their class teacher as having had a high or medium score on both warmth and control. The findings regarding the main nodes of control and warmth will, therefore, be presented separately. Later in the process, we changed control to 'protective control'.

3.1. How Did the Bullying Happen and How Did It Stop

The informants were all asked how the bullying happened. None of them described having experienced physical bullying. The most common descriptions were negative comments and exclusion, both in real life and online. For the victims that had experienced both types of victimization, the bullying was often described as starting with exclusion and negative comments in real life, which then followed to similar occurrences online for example on the social media platform, Instagram. Only one of the informants, having experienced both traditional and cyber victimization, described being victimized by someone else online than the ones they were interacting with in the school setting.

When describing how the bullying stopped, none of the informants described their class teacher being directly involved in this. Over half of the informants changed school, describing this as a new start. A couple of the informants experienced that the bullying just stopped without any special measures being done. The last informant isolated herself from the other pupils and explained that this was the reason that the bullying stopped.

3.2. Class Teachers and Perceived Protective Control

The content of all the descriptions related to the perception of the class teacher as lacking or low on protective control impacted on the victim's perceived belief that the teacher could stop the bullying. The class teachers were mainly perceived as passive or having low competence. On the question of what the teacher would do to stop the bullying, over half of the participants described their class teachers as lacking protective control: "They did not react to it" (Norwegian girl, 17), "The teachers were just completely ignoring that it happened, I didn't get anything sorted" (Irish girl, 17). In addition

to experiencing that the teachers did not react to their victimization with constructive measures, also a lack of communication about what the teacher thought and would do was described: "The teachers kept it to themselves" (Irish girl, 18), "The teacher actually did not say anything to me" (Irish girl, 13). A few of the class teachers were described as low on protective control. What classified the teacher being described as low on protective control were that they tried to intervene, but the informant described that the teacher had challenges due to possible lack of experience: "She tried everything she could, but it's difficult when you don't have the experience" (Norwegian girl, 14). "The teacher talked to us and it was very time consuming, I felt it only got worse, because then we could hear what the other one felt and we ended up getting mad at each other" (Norwegian girl, 13), "The teacher tried but he gave up because there was nothing to do" (Norwegian girl, 12). None of the class teachers were described as medium or high regarding protective control.

3.3. Class Teachers and Perceived Warmth

The perceptions of the degree of warmth shown by class teachers was revealed from the extent to which the informants reported they could talk to their teachers about bullying, as well as their general relationship with the class teacher. Warmth was also described as either lacking, low, medium, or high.

High on warmth is described as a good relationship where the informants experience that the teacher is there for them and that they can tell them everything and get the feeling of being heard. In our analysis, only one class teacher was found to be described in a way that could be interpreted as high on warmth: "She tried to help me, and she knew how I was feeling in a way. It was just like she was there for me, just like a friend kind of" (Norwegian girl, 14). Medium means they have an ok relationship and the informant and can tell the teacher about the experienced victimization. The informant trusts the teacher and tells him or her about the bullying. The teacher is described as an overall nice person to everyone, but not as having an especially good relationship with the informant. A couple of the informants described their class teacher as medium on warmth: "She was nice to everyone" (Norwegian girl, 13), "I don't trust that many teachers really, but I trust my class tutor" (Norwegian girl, 12). A couple of informants also described their class teacher as low on warmth. With low, the informants described not talking much to their class teacher about having experienced the victimization and they described only telling their class teacher, but not having conversations about it: "I went to my tutor, my class tutor and I told her I was being bullied" (Irish girl, 18). Half of the informants described their class teacher in a way that could be related to a lack of warmth. To lack warmth refers to an absence of, or not a good, relationship described between the informant and their class teacher. They did not feel they could tell their class teacher what was going on. On the question if he could tell the teacher, one informant said "no" (Irish boy, 18). The informants also described it being difficult to trust their class teacher, "she pretends to be nice but she is not really" (Irish girl, 13). Another informant did not feel that she was taken seriously: "She meant I did not have a problem, so she did not listen to what I said. She only talked to me about my grades not to how I was doing" (Norwegian girl, 17). One informant described experiencing a situation where teacher supported the bullying taking place, "she encouraged the bullying. The teacher would never listen" (Irish girl, 17).

4. Discussion of Findings

One goal of the present study was to conceptualize teacher authority in responding to bullying, as perceived by the victim. We did this by relating the two main dimensions of authority—warmth and control [1,2] to the bullying core system, the victim and the bully or bullies, as perceived by the victim. From a theoretical perspective, we argued that a preferable teacher approach perceived by the victim would be warmth towards her or himself and control towards the bullies regarding their behavior. The other main goal, which was related to the first one, was to identify whether and how the class teachers demonstrate authoritative leadership in their work with long-lasting cases of bullying, from the perspective of the pupils having experienced victimization.

Our conceptualization of teacher authority related to a bullying case, as perceived by the victim, helped in analyzing the cases. The findings showed that none of these nine informants who experienced long-lasting cases of victimization gave a description of their class teacher that could be characterized as an authoritative teacher style regarding intervention to stop bullying. In other words, the nonappearance of teacher authority coincides with long-lasting bullying.

Our findings do not say that an authoritative style as conceptualized in this study would have hindered long-lasting bullying. This result is of interest and we will now focus on some of the possible reasons for the class teacher being perceived as low on control and/or low on warmth, or even lacking both aspects.

4.1. Lacking or Low on Control

The findings show that none of the participants perceived their class teachers as being medium or high on control. In fact, all participants perceived their class teachers as either lacking or low on control. There could be many reasons why a class teacher is perceived as low on control in a case of bullying. One reason could be the lack of competence in identifying bullying. Research has shown that teachers who experience bullying behavior as normative seem to be less likely to intervene and put an end to the bullying [19,20]. The teacher might not have understood that the child has been bullied and, therefore, did not find it necessary to act. Previous research has shown that teachers do not always know how to interpret what is happening, or do not know what bullying looks like [21]. Thus, a lack of competence could be related to uncertainty regarding what type of measures should be implemented. Research also has shown that when teachers believe that they lack the skills to be able to effectively intervene in a bullying situation, it decreases the possibility that they will intervene, and they are more likely to ignore the bullying [22]. One informant excuses her class teacher for not efficiently intervening in bullying as due to lack of competence: "She tried everything that she could, but it's difficult when you don't have the experience" (Norwegian girl, 14). When lacking competence, the teacher might decide to not do anything for fear of doing something that they think might be wrong. However, we argue that by not doing anything, the teachers are negative role models because they ignore bullying behavior and, in some cases, could actually be contributing to bullying children themselves [23]. One informant described her class teacher as one of the bullies: "She encouraged the bullying. The teacher would never listen so I gave up telling them" (Irish girl, 17).

4.2. Lacking or Low on Warmth

The findings show that only one participant perceived their class teachers as high on warmth, and only a couple described their class teacher as medium in this regard. Over half of the informants described their class teacher as low or lacking warmth. There could be several reasons why many of the class teachers seem to show little or no warmth towards the informants who experienced victimization. For instance, variations in teachers' responses might reflect teachers' lack of empathy [24]. Teachers who show empathy for others seem to be more likely to identify, report, and intervene when discovering bullying [22]. Some class teachers were described as not acknowledging the bullying and reacting with low empathy towards the child talking about their experience of victimization: "She meant I did not have a problem. So she did not listen to what I said" (Norwegian girl, 17). In relation to the empathy shown by the teacher, the type of bullying also seems to impact the quality of the teacher's intervention. Teachers have less empathy and intervene less when witnessing relational, verbal, or cyber victimization compared to physical victimization [24,25]. Other studies showed that relational victimization is considered to be less serious than physical and verbal bullying [22]. However, the reasons for this difference are not necessarily a sign of a lack of empathy, but could be because physical bullying is easier to observe than relational and verbal victimization. None of the informants in this study described experiencing physical bullying, which might be easier to uncover. This lack of physical bullying might be one of the reasons why the cases lasted for such a long time.

5. Limitations of the Study

This study provides important qualitative information from informants who have experienced long-term victimization; however, there are some limitations. Finding children who had experienced victimization and agreed to be interviewed is not an easy task, and, therefore, a convenience sample was used.

The study only provides a retrospective perspective of the child, and the memories can be imprecise. This may particularly have been the case for the oldest memories. It is also possible that a victim of bullying consciously hides information or presents it in certain ways, for unknown reasons. The perspective of others, for example those of the parents, teachers, and bystanders could have added valuable information.

There is also controversy regarding whether children should be used for rating teachers' behavior [26,27]. However, in the field of bullying, it is important to present the perspective of the children who have experienced the victimization in addition to their experiences of the teacher, especially in regard to how the victims are handled when they report their bullying experience. It should also be argued that the power imbalance between the child and teacher could make it even harder for the informants describing their teachers' behavior as negative.

6. Conclusion and Future Research

Our sample is small, but the findings are in many ways consistent. Most of the victims in these long-lasting cases described absence of warmth from the class teacher, which strongly indicates that such comfort from a significant adult is important in a time of great emotional distress. Furthermore, all the victims criticize the class teacher for not offering what we conceptualize as protective control. This demonstrates that these pupils expect their class teacher to protect them from the bullying.

From our study, we cannot say what approach is the best in performing protective control. One obvious goal is to stop the bullying, and effectivity in this regard is, therefore, important. Another significant issue is the impact different forms of intervention may have on the bullies' emotions and roles in class and the school community. One should consider different forms of intervention both in regard to short-term effects and long-term benefits [28]. Moreover, schools must consider whether the class teachers need some assistance in communicating with those who bully, as this is not always straight forward [29]. Protective control could possibly also be given by the class teacher via special trained personnel.

Examples of good practice from Norway and Ireland concerning bullying prevention are, for example, anti-bullying programs, such as Olweus and Respect from Norway, and the Donegal program from Ireland. In these programs, the role of the teacher in bullying prevention and intervention is emphasized [30].

A bullying case consists of the following: The perspectives of the pupils who bully, the victims, the parents of both the bully and the victim, and the teachers. These perspectives may be greatly different, as bullying cases probably are tense. Further research should address these different perspectives in general, and in particular the role of the teacher and the school, when intervention is concerned.

From this, it would be useful to try different approaches of intervention towards the whole bullying case system and evaluate short-term and longer-term effects on the different parties, using both qualitative and quantitative methods.

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