CYBERBULLYING IN CHILDHOOD AND ADOLESCENCE
- Assessment, Coping, and the Role of Appearance

Sofia Berne
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Abstract


Cyberbullying is a relatively new form of bullying that is conducted through modern information and communication technology. This thesis examines different aspects of cyberbullying, and is comprised of three parts. The first part (including Studies I and II) aims to extend our understanding of an almost unexplored area – the relationship between cyberbullying and appearance – using self-report questionnaires and focus groups. The aims of Study I were twofold. The first was to explore the relationship between cybervictimization and body esteem among 1,076 pupils in the 4th, 6th and 9th grades, and whether there were any age or gender differences in this relationship: cybervictims reported a poorer view of their general appearance and of their weight than non-cybervictims, and girls who were victims of cyberbullying reported a poorer view of their general appearance compared to boys who were victims of cyberbullying. The second aim was to examine how often pupils in the 6th and 9th grades believed that cyberbullying was directed at the victim’s appearance, and moreover, whether pupils’ views on these matters varied with gender and age: this belief was more common among 9th graders, and when girls were cybervictims. Study II used a different sample and approach than Study I. Twenty-seven 9th-grade pupils participated in four focus groups, divided by gender. The aim of this Study was to explore pupils’ experiences of appearance-related cyberbullying by examining characteristics of the cybervictims and cyberbullies as well as the reasons for and the content and effects of the cyberbullying. The pupils stated that cyberbullying was often directed at the victim’s appearance, especially when the victim was a girl, and that appearance-related cyberbullying is considered to be a potent strategy when attempting to hurt girls. Girls often received comments about being fat, while among boys who were cyberbullied it was common to receive comments about looking or seeming “gay.” The pupils reported different reasons for writing mean things about someone’s appearance, for example jealousy or a desire to attain higher social status. The negative effects associated with appearance-related cyberbullying differ for boys and girls. Boys tend to act out or not take offense at all, while girls reported taking greater offense. Girls also described the effects as sometimes being irreversible. The second part of this thesis, Study III, investigated the coping strategies that 697 pupils in the 4th and 6th grades suggested they would use if they were cyberbullied, with a special focus on whether there were differences in these strategies related to age and gender. The most commonly suggested coping strategy was telling someone (70.5%), especially parents (39.5%) and teachers (20.2%). Surprisingly, few pupils reported that they would tell a friend (2.6%). Differences in suggested coping strategies were found related to age and gender. The third and final part of this thesis, Study IV, aimed to offer a representative overview of instruments designed to assess the prevalence of cyberbullying. There is a lack of consensus regarding the term cyberbullying and its definition, and most of the included instruments had limited reports of reliability and validity testing. In sum, this thesis indicates that appearance-related cyberbullying may be gendered. It also showed that differences in suggested coping strategies were found related to age and gender, thus indicating that these aspects need to be considered when developing prevention strategies. Finally, this thesis reveals a need for investigating the validity and reliability of cyberbullying instruments, and resolving the conceptual and definitional fluctuations related to cyberbullying.

Keywords: cyberbullying, body esteem, appearance-related cyberbullying, coping strategies, gender differences, instrument review
LIST OF PUBLICATIONS

The thesis is based on a summary of the following papers, referred to in the text by their roman numerals.


SVENSK SAMMANFATTNING


Det övergripande syftet med denna avhandling är att undersöka tre olika aspekter av nätmobbning. I första delen av avhandlingen ligger fokus på att öka kunskapen om ett nästan utforskat område; utseenderelaterad nätmobbning. Andra delen av avhandlingen inriktar sig på att undersöka vad elever uppgår att de skulle göra om de blir utsatta för nätmobbning, samt om det skiljer sig åt utifrån ålder och kön. Tredje och sista delen av avhandlingen är en systematisk genomgång av olika frågeformulär som används för att mäta förekomsten av nätmobbning.

I första delen av avhandlingen (studie I & II) ligger fokus på utseenderelaterad nätmobbning. Nätet är en av de arenor där barn och ungdomar formar sin föreställning om sitt utseende och sin kropp i interaktion med andra. Barn och ungdomar kan på social medier, t.ex. Facebook, Instagram och bloggar presentera sig själva och sitt utseende med hjälp av bilder. De kan få positiva och/eller nedlåtande kommentarer på dessa bilder, och de kan även jämföra sitt utseende med andras utseende. Vad andra tycker och tänker om deras utseende spelar stor roll för barns och ungdomars sätt att uppfatta sitt utseende och sin egen kropp.
Därtill är sociala medier en vanlig arena för nätmobbning, dock vet vi väldigt lite om utseenderelaterad nätmobbning.


Syftet med studie II var att undersöka flickors och pojkars föreställningar om utseenderelaterad nätmobbning. Sammanlagt deltog 27 elever (13 flickor och 14 pojkar) i årskurs 9 i fyra fokusgrupper. Samtalen i fokusgrupperna behandlade vem som blir utsatt för utseenderelaterad nätmobbning och hur utseenderelaterad nätmobbning går till. Vidare diskuterades eleverna föreställningar om vad som driver förövarna till att utsätta andra för utseenderelaterad nätmobbning och hur de som utsätts reagerar.

de sökte uppskattning för sitt utseende genom att publicera bilder på social medier så som Facebook, Instagram och bloggar. De påpekade att de publicerar bilder som ett sätt att få bekräftelse och bli omtyckta av killar, flickorna i en av fokusgrupperna kallade detta för ”bekräftelsemanii.” De uppgav att genom att publicera bilder på social medier tar man en risk att råka ut för utseenderelaterad nätmobbing. Speciellt om man vill göra flickor illa så uppgav eleverna att det kunde vara effektivt att ge sig på flickors utseende. En av deltagarna formulerade detta på följande sätt: ”Man säger att de är fula, att de är tjocka och sånt, och så har de inget självförtroende och tycker dåligt om sig själva.”

Eleverna hade flera föreställningar kring vad som driver förövare att utsätta andra för utseenderelaterad nätmobbing. Bland annat tog de upp att förövare försöker höja sin status i kamratgruppen. Eleverna beskrev också att de kan irritera sig på någons utseende och att de då väljer att utsätta denne för utseenderelaterad nätmobbing. Ytterligare en anledning som framfördes var att de som utsätter andra för utseenderelaterad nätmobbing inte mår bra själva.


Sammantaget visade studie II att eleverna ansåg att utseenderelaterad nätmobbing var vanligt och att sårskilt flickor utsätts för det. Därtill ansåg eleverna att det är effektivt att ge sig på flickors utseende om man vill göra dem illa. En möjlig förklaring till varför det upplevs effektivt att ge sig på flickors utseende om man vill skada dem ger objektifieringsteorin, som tar upp att flickans kropp ständigt granskas och bedöms av andra. Ofta bedöms den utifrån rådande utseenedesideal i samhället, som t.ex. utifrån värdet i att vara smal. Enligt teorin bedömer flickor också sig själva efter denna måttstock vilket gör dem väldigt sårbara för kommentarer om utseendet i allmänhet och speciellt den typen av negativa kommentarer som är vanliga vid nätmobbing.

I andra delen av avhandlingen undersökes vilka strategier 697 elever i årskurs 4 och 6 uppgav att de skulle använda för att få slut på nätmobbing om de blev utsatta, samt om det skiljer sig åt utifrån ålder och kön. Studie III utgick från samma deltagare som i studie I, men innefattade inte elever från årskurs 9. Resultatet i studie III visade att elevernas vanligaste förslag på vad de skulle göra om de blev utsatta för nätmobbing var att de skulle berätta för
någon (70.5%). Oftast var denna ‘någon’ deras föräldrar (39.5%) eller deras lärare (20.2%). Få av eleverna uppgav att de skulle berätta för en kompis (2.6%). Studien visade också att fler yngre (åkurs 4) än äldre (åkurs 6) elever uppgav att de skulle berätta för vuxna. Däremot var förslaget att berätta för kompisar för att få slut på nätmobblning om de blev utsatta vanligare hos äldre elever än hos yngre elever. Därtill fanns könsskillnader, exempelvis uppgav flickor oftare än pojkar att de skulle berätta för en förälder, lärare, eller en kompis. Fler pojkar än flickor uppgav att de skulle hämnas genom att slå förövaren.

Att många av eleverna föreslår att de skulle berätta för en vuxen om de blir utsatta för nätmobblning, belyser vikten av att ge föräldrar och lärare verktyg för att de ska veta hur de ska hjälpa om de får kännedom om nätmobblning. Sådant som kan vara viktigt för vuxna att tänka på om elever vänder sig till dem är att de inte kan motverka nätmobblning genom att förbjuda elever att vara på nätet om de berättar att de har blivit nätmobbad. I så fall finns risken att eleverna tystnar på grund av rädsla för att inte få vara på nätet. Vuxna behöver avsätta tid till att lyssna på eleverna för att få ta del av deras perspektiv och för att få en möjlighet att hjälpa dem. Få av eleverna föreslog att de skulle berätta för vänner. En förklaring skulle kunna vara att eleverna inte tror sig kunna få hjälp av sina vänner om de skulle bli nätmobbad. Fyndet betonar vikten av att lura elever olika strategier för att säga ifrån när de ser nätmobblning ske samt för att hjälpa någon som blir utsatt för nätmobblning. Det kan exempelvis ske genom att man uppmuntrar elever att då de upptäcker att någon blir nätmobbad kontakta sajten och be dem ta bort eventuella obehagliga bilder, videoklipp, eller text. En anledning till att fler av eleverna i åkurs 6 föreslår att de skulle vända sig till vänner jämfört med eleverna i åkurs 4 kan vara att eleverna i åkurs 6 är på väg in i tonåren. En naturlig del av deras utveckling i tonårsperioden är att de vänder sig mer till kompisarna än till vuxna för att få stöd. Detta skulle kunna användas i preventions- och interventionsåtgärder för att förebygga och förhindra nätmobblning genom att äldre elever (under handledning av vuxna) får vägleda yngre elever.

Tredje och sista delen (studie IV) av avhandlingen är en systematisk genomgång av olika frågeformulär som används för att mäta förekomst av nätmobblning. Syftet med studie IV var tvåfaldigt. Ett första syfte med studien var att undersöka om frågeformulärens tillförlitlighet och giltighet har testas, dvs. deras reliabilitet och validitet. Studie IV visade att de flesta frågeformulären saknade uppgifter om validitet och reliabilitet. Studiens resultat visar därmed på behovet av att testa reliabiliteten och validiteten hos de frågeformulären som används för att mäta nätmobblning.


Avhandlingen visade också att många elever uppgav att de skulle berätta för en vuxen om de blev utsatta för nätmobbning. Det kan tolkas som ett tecken på ett förtroende för vuxna
som behöver upprätthållas. Elevernas idéer för att lösa situationen var olika utifrån ålder och kön. Detta tyder på att det förebyggande arbetet mot nätmobbning behöver se olika ut utifrån elevers ålder och kön.

Vidare visade avhandlingen att frågeformulär som används för att mäta förekomst av nätmobbning använder olika begrepp och definitioner, och att det i stor utsträckning saknas uppgifter om frågeformulärens reliabilitet och validitet. Förhoppningsvis kommer forskare i framtiden att komma överens om en gemensam definition, samt säkerställa frågeformulärens tillförlitlighet och giltighet genom att testa deras reliabilitet och validitet.

Slutsatsen blir att nätmobbning är en utmaning för forskare på flera punkter; det saknas en gemensam definition, det är en brist på giltiga och tillförlitliga frågeformulär för att mäta förekomst av nätmobbning och det verkar som att utseendelaterad nätmobbning drabbar flickor mer, samt att det förebyggande arbetet mot nätmobbning behöver se olika ut utifrån elevers ålder och kön. Förhoppningsvis kommer framtida forskning fortsätta undersöka dessa och andra aspekter av nätmobbning, vilket kan ge ökad kunskap som i förlängningen kan göra att vi kan utforma åtgärder mot nätmobbning.
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INTRODUCTION

Today, children and adolescents are constantly online—the first thing they do in the morning and the last thing they do before they go to sleep is to check for new text messages and Facebook comments. One downside of peer interaction on the internet is cyberbullying. This is a relatively new form of bullying that is conducted through modern information and communication technology (Smith, 2009) and can involve, for example, nasty or offensive text messages or the perpetrator uploading unfriendly photos, videos and text to pages on the internet (Frisén & Slonje, 2010). Online, the breadth of the audience can be increased, and the identity of the perpetrator can be unclear to those exposed (Menesini et al., 2012, Menesini et al., 2013). It is difficult to escape cyberbullying; there may actually be nowhere one can go to escape it, since it takes place everywhere.

In its broadest sense, this thesis revolves around three aims. The first is to extend our understanding of a virtually unexplored area: the relationship between cyberbullying and appearance. The second is to investigate the coping strategies Swedish pupils suggest they would use if they were cyberbullied, and whether there are differences in these strategies related to age and gender. The third is to present an overview of information on instruments designed to assess the prevalence of cyberbullying.

On Facebook and Instagram, children and adolescents interact in a way that was not possible 20 years ago, by uploading and sharing photos in which they believe they look good. They also receive and make positive and negative appearance-related comments based on the photos. Therefore, the internet and especially social networking sites provide a potent context for the formation of children’s and adolescents’ views of their appearance and bodies. In the context of the cyber world, two studies of cyberbullying among pupils have found that appearance is the most commonly reported reason for being cyberbullied (Cassidy, Jackson, & Brown, 2009; Mishna, Cook, Gadalla, Daciuk, & Solomon, 2010). It should be noted that these studies included appearance as one variable among many others (e.g., sexuality, ethnicity); there is thus a need for more research on young pupils’ experiences of and reactions to particularly appearance-related cyberbullying. Being the first to present a study of this through focus groups, this thesis aims to explore characteristics of the cybervictims and cyberbullies as well as the reasons for and the content and effects of the cyberbullying. This part of the thesis also addresses whether there is any relationship between being the victim of cyberbullying and having poorer body esteem.
The second part of this thesis continues to examine cyberbullying among Swedish pupils, but does not focus on the relationship between cyberbullying and appearance. Instead, it turns to another aspect of cyberbullying: which coping strategies Swedish pupils suggest they would use to stop a cyberbullying situation. There have been some international studies on pupils’ suggestions regarding strategies for coping with being cyberbullied (Agatston, Kowalski, & Limber, 2007; Aricak et al., 2008; Bauman, 2009; Cassidy et al., 2009; Huang & Chou, 2010; Juvonen & Gross, 2008; Li, 2006, Li, 2007b, Li, 2010; Simone, Smith, & Blumberg, 2012). However, to my knowledge, no research attention to date has been given to what coping strategies pupils from Sweden suggest they would use if cyberbullied. Sweden is an interesting country with regard to this, with legislation against bullying and widespread use of the internet among pupils. To be more specific, there is a zero-tolerance policy against bullying in Swedish schools, and staff is obliged by law to actively prevent discrimination, harassment and abusive treatment (SFS 2008:567, 2010:800). Additionally, among 25 European countries, Sweden has the most frequent everyday internet usage among 9- to 16-year-olds (Von Feilitzen, Findahl, & Dunkels, 2011).

Another question is whether or not pupils’ suggestions in these matters vary between different groups such as age and gender. It is important to develop knowledge about what strategies different groups of pupils suggest they would use to counteract cyberbullying. Do younger and older pupils differ in their thoughts about what to do if cyberbullied? Preventive work should include different aspects for different age groups, if there are differences in these groups’ perceptions of the phenomenon.

In the third and final part of this thesis, the focus is to present an overview of information on instruments designed to assess cyberbullying. This is done because, although several instruments for assessing cyberbullying have been developed, there is nevertheless a lack of knowledge about their psychometric properties (Tokunaga, 2010). This thesis therefore presents a systematic review to provide information on these instruments’ structural and psychometric properties, such as validity and reliability, as well as their conceptual and definitional basis.

Cyberbullying is a relatively new phenomenon; therefore, this thesis begins with an overview of what it is. The criteria used to define offline bullying are presented, followed by a description of definitional issues in the cyberbullying field. Thereafter, distinctive aspects of cyberbullying in relation to offline bullying are presented. Then, I present international and Swedish prevalence rates of cyberbullying. Finally, the roles of age and gender in research on cyberbullying are addressed.
The second section concerns the relationship between cyberbullying and appearance. This section presents a description of what is known about the relationship between offline bullying and appearance, followed by research focusing on the relationship between cyberbullying and appearance.

In the third section, previous international studies on pupils’ suggested strategies for coping with being cyberbullied are presented. This section also includes a presentation of previous research on differences in suggested coping strategies depending on age and gender.

After these three sections discussing previous research, there is a summary of the four studies in this thesis, followed by a general discussion of the results. The four papers are appended at the end of the thesis.
CYBERBULLYING

Cyberbullying is often described as bullying that takes place in a new context: on the internet, and through a variety of modern electronic devices/media (Smith, 2009). Therefore, to start, a description of what bullying is will be presented. Much of the work on offline bullying has adopted the definition by Olweus (1999), who categorizes bullying as a subset of aggressive behavior defined by three criteria:
1. aggressive behavior or intentional infliction of harm,
2. carried out repeatedly and over time,
3. in an interpersonal relationship characterized by an imbalance of power.

In short, the three criteria are intentionality, repetition and imbalance of power. The term bullying and this definition have been widely accepted among international researchers, and are often used to investigate how common bullying is among young people (Boulton, Trueman, & Flemington, 2002; Smith et al., 2002). However, the term cyberbullying and its definition have not been employed as consistently or universally as the more general term of bullying. In the critical review of research on cyberbullying, Tokunaga (2010) portrayed it as an umbrella term encompassing different adjacent constructs, for example internet harassment and electronic bullying. Various definitions of cyberbullying have been presented in publications and instruments, several of them using some or all of the criteria from Olweus’s definition. As mentioned, Tokunaga (2010) stressed that while several instruments for assessing cyberbullying have been developed, there is a lack of knowledge about their psychometric properties, such as validity and reliability, as well as their conceptual and definitional basis.

Definitional issues

While some researchers claim that the contexts of offline bullying and cyberbullying are similar (Mitchell, Ybarra, & Finkelhor, 2007b), others argue that they are somewhat different (Menesini, Nocentini, & Calussi, 2011). The relationship between offline bullying and cyberbullying is thus not clear-cut (Kowalski, Giumetti, Schroeder, & Lattanner, 2014; Slonje, Smith, & Frisén, 2013; Thomas, Connor, & Scott, 2014). In the next section the criteria used to define offline bullying are presented more specifically, as is a description of definitional issues in the cyberbullying field.


Criteria used to define offline bullying

In recent years, considerable research has been directed at examining whether Olweus’s three well-established criteria defining offline bullying (intentionality, repetition and imbalance of power) are actually useful in defining cyberbullying (Li, 2005; Menesini & Nocentini, 2009, Menesini et al., 2011, Menesini et al., 2012, Menesini et al., 2013; Ortega, Elipe, Mora-Merchán, Calmaestra, & Vega, 2009). Researchers have suggested that repetition and power imbalance might look somewhat different in cyberbullying compared to offline bullying (Menesini et al., 2012, Menesini et al., 2013; Slonje, Smith, & Frisén, 2012, Slonje et al., 2013).

The next section focuses on the more specific aspects of the three criteria for offline bullying—intentionality, repetition and imbalance of power—and how they can be understood in cyberbullying.

Intentionality. The first criterion, intentionality, implies that the perpetrator has the intention to harm (Olweus, 1999). Thus, the behavior does not count as bullying when a person teases someone with the intention to joke. On the subject of intentionality in cyberbullying, Menesini and Nocentini (2009) have suggested that when you cannot observe the person behind the screen, it might be difficult to understand his/her intention. This suggestion has been confirmed in a recent cross-cultural focus group study (Menesini et al., 2013) in which Swedish, Spanish, German and Italian pupils emphasized that it can be difficult to understand whether or not an act is meant maliciously if the person responsible cannot be observed. However, does it matter whether it is done with the intention to be vicious or for fun, if the cyberbullying act itself is perceived by the victim as hurtful? Some qualitative research has found that pupils consider that the perpetrator must have the intention to harm in order for the behavior to be defined as cyberbullying; otherwise, it is not perceived as cyberbullying (Grigg, 2010; Spears, Owens, Lee & Johnson, 2009; Vandebosch & Cleemput, 2008). In sum, it is seldom easy to determine whether or not the cyberbully has the intention to hurt.

Repetition. A characteristic of the second criterion, repetition, is that the act is carried out repeatedly and over time (Olweus, 1999). To highlight the importance of this criterion, researchers have argued that the impact on the victim is often worse when he/she is bullied several times (Besag, 1989; Solberg & Olweus, 2003). Nevertheless, a cross-cultural study
investigating pupils’ views on the importance of different criteria in defining cyberbullying found that they perceived repetition as less relevant in cyberbullying than other criteria (Menesini et al., 2012). However, one must use caution in interpreting this as a sign that the repetition criterion is not valid in research on cyberbullying; instead, some researchers have argued that this criterion looks different in cyberbullying. The illusory divergence between cyberbullying and offline bullying can be illustrated with a particular type of cyberbullying: photo/video-clip harassment (Slonje & Smith, 2008; Vandebosch & Cleemput, 2008). First, an embarrassing photo/video clip could be uploaded to a webpage by the cyberbully, and each new visit to the webpage will be experienced by the cybervictim as a repetition of the attack. Second, a photo/video clip can be sent to one person, who in turn transmits it to many others. In sum, repetition is different in cyberbullying as the repetitive act can be conducted by an infinite number of others besides the original cyberbully.

**Imbalance of power.** The third criterion, imbalance of power, can be summarized as someone with more power targeting a person with less power (Olweus, 1999). Questions about power are complex because power can, in offline bullying, be physical such as when a person who is physically stronger hits someone who is weaker and defenseless, or a gang beats up one person, or social such as when a person who has a leadership position or high status uses this advantage to pick on someone else (Patchin & Hinduja, 2006). Along these lines, researchers propose that imbalance of power is characteristic of victims’ feelings of powerlessness and their experiences of not being able to defend themselves, regardless of what type of power imbalance they experience (Olweus, 1993; Riebel, Jäger, & Fischer, 2009; Smith & Brain, 2000).

How can the criterion of imbalance of power be understood in cyberbullying? Wolak, Mitchell, and Finkelhor (2006) have proposed that this aspect differs in cyberbullying, because in contrast to offline bullying the cybervictim can take action to defend himself/herself against the perpetrator. For example, some victims of cyberbullying manage to confront the perpetrator on the internet or end the situation, for instance by blocking the perpetrator or leaving the site. Additionally, a Swedish focus group study showed that the criterion of imbalance of power differs in cyberbullying regarding the tendency to retaliate (Menesini et al., 2013). The Swedish pupils in the study claimed that some victims of cyberbullying dared retaliate on the internet, in contrast to offline bullying, in which victims are unable to defend themselves. Another suggestion is that online power may be due to technological knowledge (Patchin & Hinduja, 2006), meaning that young people who are technologically skilled and
use this ability to hurt others have a position of power. Despite this, according to four qualitative studies (Grigg, 2010; Menesini et al., 2013; Spears et al., 2009; Vandebosch & Cleemput, 2008), pupils themselves believe the criterion of imbalance of power is an important one for defining aggressive acts such as cyberbullying. In a cross-cultural study, Menesini et al. (2012) showed that pupils perceived imbalance of power as the most important criterion for defining cyberbullying. However, it is worth mentioning that in the study the participants were given a definition of the criterion in which the focus was on the cybervictim’s experience of being powerless (e.g. the cybervictim was upset and did not know how to defend him/herself). In sum, imbalance of power is an important criterion for defining cyberbullying. However, it may differ from the situation in offline bullying; for example, some assert that when the cyberbully is anonymous the victim is totally defenseless (Dooley, Pyżalski, & Cross, 2009; Slonje & Smith, 2008; Vandebosch & Cleemput, 2008).

Additional criteria for cyberbullying

Researchers have debated whether there are any additional criteria for cyberbullying in addition to Olweus’s three criteria for offline bullying (Nocentini et al., 2010; Menesini et al., 2012; Slonje & Smith, 2008). This debate has led to the proposal of two additional criteria that might be specific to cyberbullying: anonymity, and the public vs. private nature of the act (Nocentini et al., 2010; Slonje & Smith, 2008). In the following section, the criteria of anonymity and public vs. private nature are addressed.

Anonymity. The fact that the perpetrator can be relatively anonymous online has been identified to be an important feature of cyberbullying (Spears et al., 2009). This is supported by a study in which pupils in focus groups perceived anonymity as an essential aspect of what distinguished cyberbullying from offline bullying (Mishna, Saini, & Solomon, 2009). Some studies have suggested that the anonymity of the perpetrator may intensify negative feelings such as powerlessness in the cybervictim (Dooley et al., 2009; Slonje & Smith, 2008; Vandebosch & Cleemput, 2008). This suggestion has been confirmed by two cross-cultural studies suggesting that anonymity can make the impact on the cybervictims more severe (Menesini et al., 2012, Menesini et al., 2013). While anonymity was not seen as one specific criterion by the pupils in the studies, it is nonetheless an important factor for creating an imbalance of power in the cyber context.
Public vs. private nature. Slonje and Smith (2008) reported that pupils experience it as a greater problem when high numbers of people access embarrassing material on the internet, than if the cybervictim is the only recipient of the embarrassing material; however, results from focus groups indicate that pupils in Italy, Spain, Germany and Sweden do not believe this criterion is necessary to define a situation as cyberbullying (Menesini et al., 2013). On the other hand, Italian, Spanish and German pupils mentioned that there is relationship between publicity and repetition (Menesini et al., 2013). More specifically, a cyberbully might carry out an aggressive act only once, but if it has a large audience it can be regarded as having been done several times.

Given the above outline of the definitional issues in cyberbullying research it is noteworthy that, over time, many researchers in the scientific community have underlined that all of Olweus’s (1999) three established criteria should be incorporated into the definition of cyberbullying (Menesini et al., 2012, Menesini et al., 2013; Smith, 2012b). According to Smith (2012b), a commonly cited definition is that cyberbullying is “an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself” (p. 555). This definition includes all three of the criteria. Despite this, as mentioned previously, repetition and imbalance of power might look somewhat different in cyberbullying compared to offline bullying (Menesini et al., 2012, Menesini et al., 2013; Slonje et al., 2012). Given these findings, researchers argue that it could be problematic to use a simple adaptation of Olweus’s definition of offline bullying for cyberbullying, because this approach could neglect the specificity of the cyber context (Menesini, 2012; Smith, 2012b; Thomas et al., 2014). Another question is whether researchers actually use the three well-established criteria (intentionality, repetition and imbalance of power) or the two cyber-specific ones (public/private nature, anonymity) when measuring cyberbullying. One purpose of this thesis is to conduct a systematic review of the instruments designed to assess cyberbullying in order to answer this question.

Distinctive aspects of cyberbullying

Apart from the fact that the three criteria of intentionality, repetition and imbalance of power might be somewhat different in cyberbullying compared to offline bullying, there are other distinctive aspects of cyberbullying (Menesini et al., 2012, Menesini et al., 2013).
mentioned previously, the breadth of the audience can be increased on the internet (private vs.
public nature), and the identity of the perpetrator can be unclear to those exposed
(anonymity). Nonetheless, there are several other distinct aspects of cyberbullying that are
important to have knowledge about. First, it is difficult to escape cyberbullying; there may not
be anywhere one can escape being bullied, since it takes place everywhere. (Smith, 2012b). In
contrast, offline bullying often takes place in particular contexts, such as the schoolyard
( Olweus, 1999). Second, cyberbullying is also a form of bullying that is difficult for adults to
discover and counteract, since many teachers and parents are unaware of the interactions
children and adolescents have on the internet. Some children and adolescents might even
hesitate to report incidents of bullying on the internet, because they are afraid their parents
will restrict their computer use if they know about the bullying (Agatston et al., 2007;
Juvenen & Gross, 2008; Li, 2010; Slonje & Smith, 2008; Smith Carvalho, Fisher, Russel, &
Tippet, 2008). Third, since the perpetrator is not usually in the same room as the cybervictim
when he/she receives the harassing material, the perpetrator does not get as much feedback
about the reaction of the cybervictim as in offline bullying (Slonje et al., 2012). This may lead
the perpetrator to underestimate the harm he/she is inflicting on the cybervictim. These
specific aspects of cyberbullying need to be considered in relation to the possible impact of
cyberbullying, and which coping strategies might be the most effective (Smith, 2012a).

**Prevalence of cyberbullying**

In his critical review of cyberbullying, Tokunga (2010) reported that prevalence rates of
cyberbullying vary greatly. More specifically, he found that prevalence rates for cybervictims
varied between 20% and 40% when assessed through self-report questionnaires. He suggests
that this fluctuation might be due to researchers using different terms and definitions when
measuring the prevalence of cyberbullying. An additional possible explanation could be that
researchers use different cut-off points and reference periods (Frisén et al., 2013). Actually, in
an offline context the prevalence of bullying also varies (Monks et al., 2009). This is partly
explained by the fact that developers of instruments operationalize the term and definition in
different ways. But it has also been suggested that the variation is due to researchers using
different cut-off points and reference periods (Solberg & Olweus, 2003). Yet another
explanation could be that the instruments have been developed in different languages and
used in several different countries.
The next section focuses on the cut-off points and reference periods that have been developed to measure offline bullying, and how these are used in measuring cyberbullying.

**Cut-off**

In much of the work on offline bullying, researchers dichotomize variables with specific cut-off points to establish groups (bullies, victims, bully/victims and different types of witnesses) for statistical purposes (Gradinger, Strohmeier, & Spiel, 2010). For example, one question often used to measure experiences of bullying has been obtained from Olweus (1999), namely: “How often have you been bullied in school in the past couple of months?”. This is a multiple choice question, with the following response alternatives: “I have not been bullied in school in the past couple of months”, “It has only happened once or twice”, “Two or three times per month”, “About once per week”, “Several times per week”. The cut-off point of “two or three times per month” is often used to determine the presence/absence of victims or bullies when this question is used (Solberg & Olweus, 2003).

However, some researchers have chosen to use a lower cut-off point in research on cyberbullying than what is commonly used in research on offline bullying (Frisén et al., 2013). More specifically, they have chosen to use “It has happened once or more” as a cut-off point. Thus, it appears that some researchers in the cyberbullying field use a more lenient cut-off point, and do not put much emphasis on the criterion of repetition in comparison to offline bullying.

**Reference period**

The reference period of “the past couple of months” have been widely used in measuring offline bullying (Solberg & Olweus, 2003). Solberg and Olweus (2003) further argue that this time period constitutes a memory unit that is likely to enable pupils to remember offline bullying situations. However, it is rare that this reference period is used when measuring cyberbullying (Frisén et al., 2013). Instead, it is more common to use “last year” and “ever”. One possible explanation for this could be that nasty or offensive text messages or unfriendly information (photos, videos, text) that have been uploaded might remain on the internet for a long time. This might lead the researcher to regard the reference period “the past couple of months” as too short a period of time.

To conclude, it is important to pay attention to which terms, languages, definitions, cut-offs and reference periods are used in studies measuring the prevalence rates of
cyberbullying. Otherwise, it is difficult to understand why some researchers report that cyberbullying is a common problem while others tend to report that it is a rare occurrence.

Prevalence of cyberbullying in Sweden

In Sweden there are significant differences in opinion and an ongoing debate regarding the prevalence of cyberbullying (Örn, 2013). This part of the thesis is a literature review of the available research on cyberbullying in Sweden to date. Only a handful studies have been carried out to examine the presence/absence of cybervictims in Sweden. These studies have used different methodologies to estimate the existence of cyberbullying. Seven used school-based samples (Beckman, Hagquist, & Hellström, 2012, Beckman, Hagquist, & Hellström, 2013; Englund, 2011; Låftman, Modin, & Östberg, 2013; Slonje & Smith, 2008, Slonje et al., 2012; Swedish National Agency for School Education, 2011); in one study, the researchers visited children in their home environment (Von Feilitzen et al., 2011); four others used online-recruited samples (Friends, 2013, 2014; Medierådet, 2010, Medierådet 2012/2013). For the purpose of this thesis I have chosen to categorize these studies into two different groups, school-based and home-environment/online-recruited samples, when reporting information about the studies in tabular format.

Table 1 (school-based samples) and Table 2 (home-environment/online-recruited samples) outline the sample characteristics, the ways cyberbullying was defined for the participants, the cut-off points and the reference periods the studies have used, and information on the prevalence estimations of cybervictimization.
Tab. 1
Cyberbullying studies with school-based samples, elements in the definitions,\textsuperscript{a} cut-off points, reference periods, and prevalence estimations of cybervictimization\textsuperscript{b}

<table>
<thead>
<tr>
<th>Reference</th>
<th>N</th>
<th>Age</th>
<th>Definition</th>
<th>Cut-off</th>
<th>Reference period</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beckman, Hagquist, &amp; Hellström, 2012</td>
<td>3820</td>
<td>13–16</td>
<td>E, I, R, IP</td>
<td>At least once</td>
<td>Past couple of months</td>
<td>CV = 1.9%</td>
</tr>
<tr>
<td>Beckman, Hagquist, &amp; Hellström, 2013</td>
<td>2989</td>
<td>13–15</td>
<td>E, I, R, IP</td>
<td>At least once</td>
<td>Past couple of months</td>
<td>CV = 8.8%</td>
</tr>
<tr>
<td>Englund, 2011</td>
<td>3902</td>
<td>9–15</td>
<td>I, R, IP</td>
<td>At least twice per month</td>
<td>Past couple of months</td>
<td>Age 9–12: CV = 3%  Age 13–15: CV = 4.7%</td>
</tr>
<tr>
<td>Låftman, Modin, &amp; Östberg, 2013</td>
<td>22544</td>
<td>15–18</td>
<td>—</td>
<td>Yes</td>
<td>This school year</td>
<td>CV = 5%</td>
</tr>
<tr>
<td>Slonje &amp; Smith, 2008</td>
<td>360</td>
<td>12–20</td>
<td>E, I, R, IP</td>
<td>At least once</td>
<td>Past couple of months</td>
<td>CB = 10.3%</td>
</tr>
<tr>
<td>Slonje, Smith, &amp; Frisén, 2012</td>
<td>789</td>
<td>9–16</td>
<td>E, I, R, IP</td>
<td>At least once</td>
<td>Last 2–3 months</td>
<td>CV = 10.6%</td>
</tr>
<tr>
<td>Swedish National Agency for School Education</td>
<td>7429</td>
<td>9–16</td>
<td>I, R</td>
<td>At least twice per month</td>
<td>Past couple of months</td>
<td>CV = 1%</td>
</tr>
</tbody>
</table>

\textit{Note.} A dash (–) in the table indicates that no data were reported.

\textsuperscript{a}These elements have been generated from the cyberbullying literature (Tokunaga, 2010). The following abbreviations represent elements in the definitions of cyberbullying (as specified by the developers): Electronic device/media = E; Intentionality = I; Repetition = R; Imbalance of Power = IP.

\textsuperscript{b}CV = cybervictims.
<table>
<thead>
<tr>
<th>Reference</th>
<th>N</th>
<th>Age</th>
<th>Definition</th>
<th>Cut-off</th>
<th>Reference period</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends, 2013</td>
<td>407</td>
<td>12–16</td>
<td>E</td>
<td>At least once</td>
<td>Past six months</td>
<td>Harassment = 45%</td>
</tr>
<tr>
<td>Friends, 2014</td>
<td>1070</td>
<td>10–16</td>
<td>E</td>
<td>At least once</td>
<td>Past year</td>
<td>Harassment = 33%</td>
</tr>
<tr>
<td>Medierådet, 2010</td>
<td>1181</td>
<td>9–16</td>
<td>E</td>
<td>Yes/No</td>
<td>Past two years</td>
<td>CV = 9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Being threatened = 4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Uploaded hurtful photos = 4%</td>
</tr>
<tr>
<td>Medierådet, 2012/2013</td>
<td>824</td>
<td>9–18</td>
<td>E</td>
<td>Yes/No</td>
<td>Past year</td>
<td>Age 9–12:</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>CV = 6%</td>
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<td></td>
<td></td>
<td></td>
<td>Being threatened = 2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Uploaded hurtful photos = 3%</td>
</tr>
<tr>
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<td></td>
<td></td>
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<td></td>
<td>Age 13–16:</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>CV = 11%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Being threatened = 6%</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
<td>Uploaded hurtful photos = 6%</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Age 17–18:</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>CV = 8%</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Being threatened = 6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Uploaded hurtful photos = 4%</td>
</tr>
<tr>
<td>Von Feilitzen, Findahl, &amp; Dunkels, 2011</td>
<td>1000</td>
<td>9–16</td>
<td>—</td>
<td>At least once</td>
<td>Past year</td>
<td>CV on internet = 9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CV on mobile phones = 6%</td>
</tr>
</tbody>
</table>

*Note. A dash (–) in the table indicates that no data were reported.*

aThese elements have been generated from the cyberbullying literature (Tokunaga, 2010). The following abbreviations represent elements in the definitions of cyberbullying (as specified by the developers): Electronic device/media = E; Intentionality = I; Repetition = R; Imbalance of Power = IP.

bCV = cybervictims.
The following is an analysis of the contents of Tables 1 and 2. In the Swedish studies, the prevalence rates for being cyberbullied varied between 1% and 45% (see Tables 1 and 2). One explanation for the mixed prevalence rates may be that different methods have been used in the studies. More specifically, there are differences among the questions, definitions and cut-off points in the various studies.

To begin with, the Swedish National Agency for School Education (2011) reported that only 1% of pupils were victims of cyberbullying. There might be several reasons for this finding of a very low rate of cybervictims.

First, cybervictimization was measured by using the following question: “Other pupils have used the internet, mobile phones, e-mail to spread mean rumors” (Swedish National Agency for School Education, methodological appendix, p. 86). It should be noted that there are numbers of other ways pupils can be targeted on the internet, besides having mean rumors spread about them. For example, Menesini et al. (2012) reported that pupils can be targeted on the internet by four different vicious behaviors: written-verbal, visual, impersonation and exclusion. The first type (written-verbal) involves pupils being targeted on the internet by vicious written and verbal behaviors through modern information and communication technology (e.g., phone calls, text messages, e-mails, instant messaging, chats, blogs, social networking communities, and websites). The second type (visual) consists of uploading, sending or sharing compromising photos and videos through modern information and communication technology. The third type (impersonation) refers to more sophisticated attacks making use of identity theft, for example stealing and revealing personal information using another person’s name and account. Finally, the fourth type (exclusion) can be illustrated as occurring when someone purposefully excludes an individual from an online group. The Swedish National Agency for School Education (2011) thus assessed only one type of cyberbullying of many. Additionally, they used the cut-off of “at least twice per month”, naturally attenuating the prevalence rates of victimization.

Second, the Swedish National Agency for School Education (2011) used the following definition: “A student who in recent months has been exposed to one or more negative actions repeatedly and where the intent was to hurt or frighten” (Swedish National Agency for School Education, 2011, p. 124). This definition contains nothing about the cyberbullying behavior occurring through electronic devices/media.

In sum, the Swedish National Agency for School Education (2011) has probably underestimated the prevalence rates of cybervictims due to having presented participants with a definition that does not acknowledge that cyberbullying behavior occurs through electronic
devices/media, and using a question targeting only one type of cyberbullying while excluding other types. Additionally, the low prevalence rate might also stem from the use of the cut-off “at least twice per month”.

Moreover, Beckman et al. (2012) also found that as few as 1.9% of pupils reported being cybervictims, using the global question “How often have you been cyberbullied in the past couple of months?” to measure cybervictimization. The participants in this study were given a definition of offline bullying with the following addition: “It involves bullying through for example mobile phones (calls or text messages), photo/video clips, E-mail, Chat-rooms, Web-pages, Instant Messaging (i.e. MSN)” (Beckman et al., 2012, p. 426). There are two problems with how this definition was operationalized by Beckman et al. (2012). To begin with, they operationalized the criterion of imbalance of power as follows: “But it is not bullying when two students of about the same strength quarrel or fight” (Beckman et al., 2012, p. 424). I suspect that their way of operationalizing imbalance of power can lead to an underestimation of the prevalence of cybervictims. For example, even though the two persons in the quarrel have the same strength when they meet individually, in a group situation one of them can have a great number of assistants and this can render the other person powerless. Another example is that there are other ways a pupil can be targeted on the internet that do not involve a quarrel; for instance, an anonymous cyberbully can send threatening or offensive text messages to the cybervictim. These examples demonstrate that cybervictims can be subjected to other types of power imbalance than those mentioned in the study by Beckman et al. (2012). A way to operationalize the criterion of imbalance of power online is to underline that the cybervictim cannot easily defend himself/herself (Smith, 2012b).

Another problem is that the criterion of repetition was operationalized as follows: “It is also bullying when a student is teased repeatedly in a way he or she does not like” (Beckman et al., 2012, p. 424). It is possible that operationalizing repetition in this way might fail to capture participants who have been targeted in ways other than being teased repeatedly, for example through photos posted with abusive, hurtful comments.

However, in another study Beckman and colleagues (2013) found that 8.8% reported being cybervictims. This finding is somewhat puzzling, since the question and definition were operationalized the same way as in their previously mentioned study (see Beckman et al., 2012).

Englund (2011) found that 3% of the 9- to 12-year-olds and 4.7% of the 13- to 15-year-olds in his study reported being cyberbullied. There might be several reasons for this finding of a relatively low rate of cybervictims. First, cybervictimization was measured using
the following statement: “I was bullied with mean or hurtful messages, calls or pictures, or in other ways on my mobile phone or on the internet”, with the addition of “It is not bullying when teasing is done in a friendly and playful way” (Englund, 2011, p. 20). As can be seen, only three types of cybervictimization were presented to the participants. However, the phrase “in other ways” perhaps allowed them to make a broad interpretation. Englund (2011) also used the cut-off “at least twice per month” (see also Swedish National Agency for School Education, 2011). Second, the participants in this study received Olweus’s (1999) definition of offline bullying, including all three criteria (intentionality, repetition and imbalance of power). The definition did not mention that cyberbullying behavior occurs through electronic devices/media.

Låftman et al. (2013) found that 5% of the pupils in her study were victims of cyberbullying. Cybervictimization was measured using the question “Have you been bullied or harassed on the internet or by text messaging (SMS/MMS) this school year?” The question had the response categories “Yes”, “No” and “Don’t know”. The cut-off “Yes” was used. Those who replied “Don’t know” were coded as missing, which corresponded to 3.4% (898 pupils). Perhaps one explanation for so many pupils answering “Don’t know” could be that Låftman et al. (2013) did not provide their participants with a definition of cyberbullying. This may have made it difficult for them to know what was meant by the term.

In the two studies by Slonje and Smith (2008) and Slonje et al. (2012), cybervictimization was measured using the global question “Have you been cyberbullied within the past months?” The participants were given a definition of bullying that included all three of Olweus’s criteria (intentionality, repetition and imbalance of power). Additionally, cyberbullying was mentioned as “bullying through text-messaging, email, mobile phone calls or picture video clip” (p. 149) in the study by Slonje and Smith (2008), while in the study by Slonje et al. (2012) it was mentioned as “bullying through electronic means such as: mobile phone calls, text messaging, picture/video clip, e-mail, chat rooms, websites and instant messaging” (p. 247). As can be seen in Table 1, the cut-off “at least once” was used. However, it should be noted that the authors also reported the prevalence rate of the cut-off “at least twice per month”. The prevalence rates for cyberbullying in these studies were higher than in five of the previously mentioned ones (see Beckman et al., 2012, Beckman et al., 2013; Englund, 2011; Låftman et al., 2013; Swedish National Agency for School Education, 2011).

The study by Von Feilitzen et al. (2011) differs in several ways from the others. First, the data were collected in the home environment, while the previous studies collected data in
the schools. Second, they used the reference period “last year”, in contrast to the other studies which mainly used “past couple of months”. Finally, they did not provide their participants with a definition of cyberbullying. Thus, it is difficult to compare the findings of this study with those of the others.

As mentioned, four online studies have also been conducted to examine the prevalence of cybervictims in Sweden (Friends, 2013, 2014; Medierådet, 2010, Medierådet 2012/2013). First, in the study by Medierådet (2010), 9% of the participants reported being bullied through the internet. This prevalence rate was surprisingly low considering that the sample was recruited online, which usually gives a higher prevalence rate (Ybarra, Diener-West, & Leaf, 2007a). Second, another study by Medierådet (2012/2013) found that 6% of the study’s 9- to 12-year-olds, 11% of the 13- to 16-year-olds, and 8% of the 17- to 18-year-olds reported being cyberbullied. Third, according to Friends study (2013) (an internet-based Swedish organization against cyberbullying), about 45% of 12- to 16-year-olds reported that they were or had been victims of harassment through the internet or mobile phones. Fourth, another study by Friends (2014) found that 33% of the study’s 10- to 16-year-olds reported that they were or had been victims of harassment through computers or mobile phones or tablets. The higher prevalence rate in these studies compared to all the others can have two different explanations. First, harassment has a broader definition than cyberbullying, not including the criteria of repetition and imbalance of power. Second, both studies by Friends used a sample recruited online; researchers have noted that this type of sample can capture adolescents other than those targeted in school (Ybarra et al., 2007a).

To conclude, there is variation in the prevalence rates reported in the Swedish studies. The literature review shows that the methods in the studies are similar to each other in some aspects, while they differ in other ways. I will now try to explain this great variation in prevalence rates.

First, some of the studies (see Beckman et al., 2012, Beckman et al., 2013; Englund, 2011; Slonje & Smith, 2008, Slonje et al., 2012) reported that they provided their participants with a definition of bullying that included the criteria intentionality, repetition and imbalance of power. However, most of the studies described the criteria in different ways. This may be one reason for the fluctuation in the reported rates.

Second, most of the studies used different questions, which also may explain the variation in prevalence rates. The questions in several of the studies only included limited aspects of cyberbullying.
Third, three studies using the cut-off “at least once” (see Beckman et al., 2013; Slonje & Smith, 2008, Slonje et al., 2012) reported higher prevalence rates compared to those using the cut-off “at least twice per month” (see Englund, 2011; Swedish National Agency for School Education, 2011). The use of different cut-off points probably influenced the prevalence rates.

To conclude, the comparison of the Swedish studies shows that in the future, the focus should be on starting a dialog among Swedish researchers about which definition to use, how to operationalize the questions, and which cut-off point to use.

The role of age in cyberbullying

In his review of cyberbullying research, Tokunaga (2010) underlines that most studies have reported inconsistent results regarding whether there is a relationship between age and cyberbullying. There is, however, a weak pattern of results indicating that there might be a curvilinear relationship between age and the prevalence of cybervictimization. The author found that cyberbullying is most common among 12- to 15-year-olds, compared to both younger and older groups. Two recent reviews of cyberbullying research support that adolescence seems to be a peak period for involvement in cyberbullying (Slonje et al., 2013; Smith, 2012a). The idea of a curvilinear trend is concordant with patterns shown in research on offline bullying, but in offline bullying the peak often occurs at a younger age, 9 to 11 years (Slee, 1995). However, the inconsistent results in the literature concerning age may have several reasons. First, conclusions drawn from these results are limited by the fact that cyberbullying research on age differences consists almost exclusively of cross-sectional data. Second, as mentioned, studies use different definitions of cyberbullying and different methods of investigation. Therefore, comparisons of prevalence rates across studies are very uncertain. Finally, as the research on cyberbullying increases, it is likely that age patterns for cyberbullying will become more salient, but to achieve this we need to know the age at which children are first exposed to it. To date, research has mostly been conducted on children aged 12 and upward; thus there is a need for knowledge about younger children’s exposure to and perceptions of cyberbullying.
**Age differences in the Swedish studies**

Regarding age differences in Swedish studies, Slonje and Smith (2008) found that pupils 12 to 15 years old (15.2%) were cyberbullied significantly more frequently than pupils 15 to 20 years old (2.7%). Låftman et al. (2013) found that pupils 15 to 16 years old were cyberbullied significantly more frequently than pupils 17 to 18 years old. Von Feilitzen et al. (2010) mentioned that 13- to 16-year-old participants reported being targeted through mobile phones and the internet more often than 9- to 12-year-old participants. However, it was not reported whether these age differences were investigated through statistical analysis. Similarly, Englund (2011) mentioned that participants 13 to 15 years old (4.7%) reported being targeted more often than participants 9 to 12 years old (3%). However, it was not reported whether these age differences were investigated through statistical analysis. Moreover, Medierådet (2010) found that older participants (12- to 16-year-olds) more often reported being threatened or that someone took a hurtful photo of them and uploaded it to the internet for others to see, compared to younger participants (9- to 12-year-olds). Additionally, Friends (2014) found that older participants (13- to 16-year-olds) more often reported being harassed through computers or mobile phones or tablets, compared to younger participants (10- to 12-year-olds). In four of the above-mentioned studies it seems as if pupils 12 to 15 years old have been targeted more often than 9- to 12-year-olds have (Englund, 2011; Friends, 2014; Medierådet, 2010; Von Feilitzen et al., 2010).

**The role of gender in cyberbullying**

Research on offline bullying consistently finds that boys and girls tend to carry out and be exposed to different forms of bullying (Olweus, 1999). Boys carry out and are exposed to direct bullying, like physical violence, to a greater extent, while girls carry out and are exposed to indirect relational bullying, like exclusion, to a greater extent (Olweus, 1999). However, overall, boys are more often involved as both bullies and victims offline than girls are (Olweus, 1999). Some researchers have suggested that since cyberbullying is by nature verbal and relational, girls would be more involved in this form of bullying than in offline bullying, and perhaps even more involved than boys (Hinduja & Patchin, 2008). This was also suggested by participants in focus groups, who believed that girls would be more involved in cyberbullying than boys, as both cybervictims and perpetrators (Kowalski, Limber, & Agatston, 2008; Smith et al., 2008).
However, in his critical review of cyberbullying research, Tokunaga (2010) reported that research on gender differences in cyberbullying has shown mixed and inconsistent results. Whereas some studies reported that boys are more involved than girls (e.g., Calvete, Orue, Estévez, Villardón, & Padilla, 2010; Cross, Epstein, Hearn, Slee, Shaw, & Monks, 2011a; Fanti, Demetriou, & Hawa, 2012; Salmivalli & Pöyhönen, 2012), others found no significant differences concerning cybervictimization and perpetration prevalence rates between girls and boys (e.g., Hinduja & Patchin, 2008; Slonje & Smith, 2008; Smith et al., 2008; Livingstone, Haddon, Görzig, & Ólafsson, 2011). Studies can also be found in which girls are more involved than boys (e.g., Beckman et al., 2013; Rivers & Noret, 2010). Thus, it cannot be confirmed that gender is a significant predictor of cybervictimization. An interesting matter to address further is why systematic gender differences do not emerge in research about cyberbullying. One can also wonder whether this applies to all the different types of cyberbullying. In a recent review of cyberbullying research, Kowalski et al. (2014) suggested that gender differences may depend on the arena in which the cyberbullying occurs.

**Gender differences in the Swedish studies**

Regarding gender differences in Swedish studies, four studies found that girls were significantly more likely than boys to be cybervictims (Beckman, 2013; Låftman, 2013; Medierådet, 2010, Medierådet, 2012/2013). Additionally, Slonje et al. (2012) reported that there was a trend for girls to be cyberbullied more than boys. Moreover, Friends (2013) reported descriptive results concerning gender differences: 51% of the girls and 39% of the boys in the study reported that they had been harassed on the internet or through mobile phones. Another study by Friends (2014) also reported descriptive results concerning gender differences: 37% of the girls and 28% of the boys in the study reported that they had been harassed through computers or mobile phones or tablets. Additionally, Englund (2011) found that 9- to 12-year-old girls reported being cybervictims more often than boys in the same age group. The reverse pattern occurred among older pupils, whereby 13- to 15-year-old boys reported being cybervictims more often than girls in the same age group. However, it is not reported whether these grade differences were investigated through statistical analysis. It should also be noted that no gender differences were reported in the other Swedish studies (Beckman et al., 2012; Slonje & Smith, 2008; Swedish National Agency for School Education, 2011; Von Feilitzen et al., 2010).

After this introduction to cyberbullying, I will now turn to the relationship between cyberbullying and appearance.
DIFFERENT FORMS OF BULLYING AND APPEARANCE

Adolescence is a period when individuals spend an increasing amount of time with peers, and it is therefore characterized by an increased striving for acceptance by, and popularity with, the peer group (Steinberg, 2013). Moreover, concerns over how one’s body is perceived by peers preoccupy the minds of a majority of adolescents (Jones, 2012). Peers thus have a major impact in shaping adolescents’ thoughts about their bodies (Webb & Zimmer-Gembeck, 2013). Integrating the changing body into one’s overall sense of self has been identified as one of the most important psychological tasks during adolescence (Erikson, 1968).

Social networking sites are examples of new contexts in which adolescents can present themselves, and also compare their appearance with others (Manago, Graham, Greenfield, & Salimkhah, 2008; Forsman, 2014; Tiggesmann & Miller, 2010). On Facebook and Instagram, adolescents interact in a way that was not possible in the past, uploading and sharing photos in which they believe they look good (Forsman, 2014). They might also receive and make positive and negative appearance-related comments based on the photos. The internet, and especially social networking sites, can provide a potent context for the formation of adolescents’ views of their bodies and appearance. To date, little is known about the relationship between cyberbullying and appearance. This section presents a description of what is known about the relationship between offline bullying and appearance, and also discusses research focusing on the relationship between cyberbullying and appearance.

Offline bullying and appearance

There is a gap in the literature regarding the relationship between cyberbullying and appearance. However, the relationship between offline bullying and appearance among young people is more established (Frisén, Jonsson, & Persson, 2007; Frisén, Holmqvist, & Oscarsson, 2008; Hamarus & Kaikkonen, 2008; Horowitz et al., 2004; Lunde, Frisén, & Hwang, 2007; Lunde & Frisén, 2011; Thornberg, 2010, Thornberg & Knutsen, 2011; Varjas et al., 2008). These studies show that two forms of victimization (e.g., offline teasing and bullying) frequently concern the victim’s appearance. Some of these studies also show that both offline appearance-related teasing and bullying are associated with poor body esteem among victims (Lunde et al., 2007; Lunde & Frisén, 2011). Below I describe in greater detail how offline bullying often revolves around the victim’s appearance. Then, I briefly present
the terminology used in the field of body esteem. Next, a selective overview is presented concerning how body esteem is related to offline appearance-related teasing and bullying.

Deviant appearance a reason for offline bullying

Studies have shown that a common explanation among pupils as to why bullying occurs is that the victim has a deviant appearance (Frisén et al., 2007; Frisén et al., 2008; Hamarus & Kaikkonen, 2008; Horowitz et al., 2004; Thornberg, 2010, Thornberg, 2011b, Thornberg & Knutsen, 2011; Varjas et al., 2008). Frisén et al. (2008) found that the most common response pupils gave as to why pupils are bullied was that the victim is ugly, fat or small, wears braces, or looks different in some other way. Similarly, in an interview study on pupils’ representations of the causes of bullying, Thornberg (2010) found that a common explanation among the pupils was that the victim is ugly, fat, short or thin, or wears the wrong clothes or clothes that are odd. Additionally, Frisén et al. (2009) found that 10-year-old girls who were overweight reported having been bullied to a greater extent than non-overweight girls did. As mentioned, another aspect of the relationship between offline bullying and appearance is that both offline appearance-related teasing and bullying are associated with poor body esteem among the victims (Lunde et al., 2007; Lunde & Frisén, 2011). A definition of the concept of body esteem is presented in the next section.

Body esteem

The concept of body esteem is usually used to describe the extent to which people are dissatisfied or satisfied with their body and its appearance (Rieves & Cash, 1996). Body esteem is a construct that consists of different aspects. According to Mendelson, Mendelson and White (2001), it comprises the following three aspects: (1) general feelings about one’s appearance (Appearance), (2) satisfaction with one’s weight (Weight), and (3) beliefs about how others view one’s body and appearance (Attribution). Body esteem is one important domain of self-esteem. Harter (1999) defines self-esteem as a result of self-evaluations across different domains such as appearance, academics and social acceptance, or as a global self-evaluation; that is, “the level of global regard that one has for the self as a person” (Harter, 1993, p. 88).
Appearance-related teasing and body esteem

Peers often communicate their critique of another’s appearance through teasing. Appearance-related teasing is a concept that does not have as strict criteria as the concept of bullying does. More specifically, appearance-related teasing refers to comments about a person’s appearance that may, or may not, be intentionally hurtful (Menzel et al., 2010). Bullying is defined by three criteria, presented earlier in this thesis (see page 4). Much more research has been performed on the relationship between appearance-related teasing and body esteem than on bullying and body esteem. A considerable amount of research has shown that being teased offline about their appearance (e.g., body weight, body shape and facial features) is a relatively common experience for many young people (Crozier & Dimmock, 1999; Frisén & Holmqvist, 2010; Frisén, Lunde, & Hwang, 2009; Lunde, Frisén, & Hwang, 2006; Lunde et al., 2007; Menzel et al., 2010; Thompson, Coover, Richards, Johnson, & Cattarin, 1995). Crozier and Dimmock (1999) found that children (8- to 11-year-olds) gave each other nasty nicknames referring to their appearance, such as “big nose”, “wartman”, “fatso”, or “bag of bones” (p. 510). Additionally, a majority of the targeted children reported that being called nasty nicknames referring to their appearance evoked negative emotions such as feelings of sadness, hurt or anger, or being upset. Kostanski and Gullone (2007) reported that offline teasing related to appearance is especially prevalent among girls. In a meta-analysis, Menzel et al. (2010) demonstrated that being teased over one’s appearance offline is associated with several negative consequences. These negative consequences include poor body esteem (Frisén & Holmqvist, 2010; Lunde et al., 2006; Rives & Cash, 1996; Sweetingham & Waller, 2008; Thompson et al., 1995), dietary restraint (Halvarsson, Lunner, Westerberg, Anteson, & Sjöden, 2002), and depressive symptoms and lower self-esteem (Eisenberg, Neumark-Sztainer, & Paxton, 2006).

Offline bullying and body esteem

Apart from research on the relationship between appearance-related teasing and body esteem, there are a few studies about offline bullying and body esteem. Engström and Norring (2002) found that being the victim of bullying might be associated with a more pronounced drive for thinness; it should be noted that the drive for thinness is in turn related to poorer body esteem. Lunde et al. (2006) found that pupils who were victims of offline bullying reported poorer body esteem compared to non-victims. In another study, Lunde et al. (2007) demonstrated through longitudinal investigation that being the victim of offline bullying at
age 10 was related to the development of poor body esteem at age 13. They also found that girls who were victims of offline bullying had poorer body esteem compared to boy victims, especially concerning their weight. Lunde and Frisén (2011) found that 10-year-olds who were victims of offline bullying were more preoccupied with their physical appearance and experienced elevated levels of bodily shame at age 18 compared to non-victims. They also found that girls who were victims of offline bullying were more ashamed of their appearance compared to boy victims. It appears that the negative effects of offline bullying on body esteem are more severe for girls than for boys. Returning to the context of the cyber world, little is known about the relationship between cyberbullying and body esteem. Additionally, there is a lack of knowledge regarding whether such relationships differ between girls and boys or between cybervictims of different ages.

**Cyberbullying and appearance**

Research on the relationship between cyberbullying and appearance is scarce in contrast to that on the relationship between offline bullying and appearance. Below, the existing research on the relationship between cyberbullying and appearance is described, starting with what is known about the relationship between internet exposure and body esteem, and followed by a section on appearance-related cyberbullying.

**Internet exposure and body esteem**

Two studies have examined the connection between social networking sites and body esteem among adolescent girls. Tiggemann and Miller (2010) showed that exposure to the internet is associated with poorer body esteem. They concluded that it is not the use of the internet per se that influences body esteem negatively, but rather the use of social networking sites such as Facebook and MySpace. More specifically, they found that adolescent girls who often spent time on Facebook and MySpace reported more comparison of appearance, were less satisfied with their weight, had an increased drive for thinness, and exhibited greater internalization of the thin ideal than girls who spent less time on Facebook and MySpace. Meier and Gray (2014) revealed that adolescent girls who used Facebook photo applications reported poorer body esteem than girls who did not. The use of photo applications was estimated using the following eight items involving photos (of oneself or friends): create a photo album with photos of yourself and friends/family, update your profile photo, post a photo, view friends’ photos of you that they’ve added, view friends’ photos of themselves,
comment on friends’ photos, tag yourself in friends’ photos, and untag yourself in friends’ photos. While such research has resulted in some understanding about how the internet and the use of social networking sites influence body esteem, many questions remain unanswered. How can the mere use of Facebook photo applications among girls be associated with lower body esteem? Could it be that the findings in these studies are related to cyberbullying, which puts the victim’s appearance in focus and in which many peers are involved? An example of this could be when a great deal of others make hostile comments about a photo of the victim. It is important to gain a more detailed understanding of pupils’ interaction on photo-sharing social networking sites like Facebook.

**Appearance-related cyberbullying**

In an attempt to illustrate the seriousness and complexity of appearance-related cyberbullying, I will now describe an event called the “Instagram riot”, which took place in Gothenburg, Sweden, in December 2012. An account called “gbg-orroz” (“gbg” stands for Gothenburg and the word “orroz” is another word for whore) was created on Instagram, a website and smartphone application that allows users to upload and edit photographs (Korneliusson, 2013, May, 21). The founder of the account urged people to post photos including allegations of the person’s sexual history. At least 90 adolescents, mainly girls, had their photos posted on Instagram, with abusive comments designating them as “sluts” and “whores”. They also received comments about their appearance, for instance “fat cow” (Weldeborn & Niang, 2012, December 18). The account grew quickly, and just hours after its creation had over 6,000 followers. A group of young people, who had decided to try to stop the cyberbullying situation on their own, attempted to find the presumed cyberbully at her school in order to retaliate (Korneliusson, 2013, May, 21). More young people joined in the retaliation process, and this case of appearance-related cyberbullying resulted in the Instagram riot, with vandalism and closed schools as a result. It was found that two other girls had set up the account, and of the 90 photos that were posted, 46 resulted in public prosecution. The two girls were found guilty of defamation. The Instagram riot shows that appearance-related cyberbullying can have serious effects: harm to the victims, serious retaliation processes, and legal consequences for the cyberbullies. There is a need for research on pupils’ experiences of and reactions to appearance-related cyberbullying. To my knowledge, only two studies have reported results regarding appearance-related cyberbullying (Cassidy et al., 2009; Mishna et al., 2010).
These two studies found that appearance is the most commonly reported reason for being cyberbullied (Cassidy et al., 2009; Mishna et al., 2010). It should be noted that these studies included appearance as one variable among many others (e.g., sexuality, ethnicity), and that neither of them focused solely on appearance-related cyberbullying. More specifically, one of them (Cassidy et al., 2009) found that over a third of the pupils reported being cyberbullied because of their size or weight. The other study (Mishna et al. 2010) found that one in ten of the pupils reported being bullied online because of their appearance. Additionally, Friends (2014) found in their study that 31% of the girls reported that they had been victims of appearance-related harassment through mobile phones or tablets the past year. They also found that 23% of the boys reported that they had been victims of appearance-related harassment through mobile phones or tablets the past year. Thus, in-depth studies are essential for attaining further knowledge about this phenomenon (Streiner & Norman, 2008). To progress our understanding of appearance-related cyberbullying, it is imperative to listen to the pupils themselves. To my knowledge, appearance-related cyberbullying has never before been the subject of a qualitative approach using focus groups. Focus groups could give pupils the opportunity to express their thoughts about appearance-related cyberbullying, without having to adjust their experiences to pre-planned response alternatives in questionnaires (Grogan, 2007). Through focus groups, the following questions could be addressed: What characterizes pupils who are involved as victims or bullies in appearance-related cyberbullying? In what specific ways are pupils cyberbullied about their appearance? Why is cyberbullying directed at appearance? What effects are associated with appearance-related cyberbullying?

So far, this thesis has focused on what cyberbullying is and on the relationship between cyberbullying and appearance. I will now turn to another aspect of cyberbullying: which coping strategies pupils suggest they would use to stop a cyberbullying situation.
SUGGESTED COPING STRATEGIES IF CYBERBULLIED

To address the effects of cyberbullying, it is of value to investigate pupils’ own suggestions of what they would try to do to stop cyberbullying if they were cybervictims. Such information may help suggest a better way to prevent bullying.

The following section discusses two previous studies from Sweden that have investigated whether or not cybervictims seek help by telling someone about their experiences of cyberbullying (Slonje, 2011, Slonje & Smith, 2008). It also presents international studies on pupils’ suggested strategies for coping with being cyberbullied. This section also includes a presentation of the few previous studies that have been conducted on differences in suggested coping strategies depending on age and gender.

Coping strategies in the Swedish socio-cultural context

To my knowledge, no Swedish studies have been performed on the various coping strategies that pupils suggest they would use if cyberbullied. Two studies from Sweden, however, focus solely on whether cybervictims seek help by telling someone about their experience of cyberbullying, and if so, whom (Slonje, 2011, Slonje & Smith, 2008). But there are several other coping strategies cybervictims can use besides telling someone; these are presented in the next section. In contrast to the two Swedish studies mentioned, this thesis examines the suggestions of Swedish pupils in general (both cybervictims and others). According to social representations theory, people develop representations of various aspects of the social reality and use these when interacting with each other (Augoustinos, Walker, & Donaghue, 2012). Thornberg (2010) suggests that these representations can be seen as “forms of common sense knowledge among groups of people” (p. 312). People are strongly influenced by these representations, which elicit feelings, thoughts and behaviors. It is of importance to investigate Swedish pupils’ suggestions of solutions to cyberbullying, to better understand their thoughts and behavior in cyberbullying situations. This knowledge is important for researchers to be able to develop effective anti-cyberbullying approaches for children and adolescents. It should also be noted that the content of the social representations varies due to differences in contextual variables such as culture, legalization and internet access to (Augoustinos et al., 2012; Sarrica, 2010). The legislation against bullying and the massive use of internet among children and adolescents in Sweden might influence the suggestions Swedish pupils have for solutions to cyberbullying.
Suggested coping strategies

The findings of previous studies on pupils’ suggested strategies for coping with being cyberbullied differ somewhat, both in the coping strategies suggested and in their prevalence. One explanation for these differences concerns methodology (Perren et al., 2012). First, some researchers have asked pupils in general what they thought their coping strategies would be if they were cyberbullied (Agatston et al., 2007; Aricak et al., 2008; Bauman, 2009; Cassidy et al., 2009; Huang & Chou, 2010; Juvonen & Gross, 2008; Li, 2006, Li, 2007, Li, 2010; Simone et al., 2012), while some have asked cybervictims what their coping strategies were when an actual cyberbullying situation occurred (Juvonen & Gross, 2008; Li, 2010; Patchin & Hinduja, 2006; Sleglova & Cerna, 2011).

Second, when asking pupils in general as well as cybervictims about coping strategies against cyberbullying, some researchers have used questions with fixed alternatives that the pupils were to choose from (Aricak et al., 2008; Bauman, 2009; Cassidy et al., 2009; Huang & Chou, 2010; Juvonen & Gross, 2008; Li, 2006, Li, 2007b, Li, 2010; Patchin & Hinduja, 2006; Simone et al., 2012; Smith et al., 2008), while other researchers have used an open format in which the pupils have the opportunity to formulate their own answers (Agatston et al., 2007; Huang & Chou, 2010; Schenk & Fremouw, 2012). One reason for using an open format is that participants can give an extended answer and in-depth information about the phenomenon (Streiner & Norman, 2008), while a justification often used by researchers for using questionnaires with fixed alternatives is that it is possible to measure how the answers are distributed among the options. Nevertheless, instead of choosing one of these methods, an alternative could be to first use an open format and code the pupils’ answers into themes, using thematic analysis, and thereafter use descriptive statistics to investigate how the answers are distributed among the options.

Finally, one additional explanation could be that the above-mentioned studies were conducted in different countries. Several countries are represented, such as Great Britain (Simone et al., 2012; Smith et al., 2008), Canada (Li, 2006, Li, 2007b, Li, 2010), Taiwan (Huang & Chou, 2010), Turkey (Aricak et al., 2008), and the US (Bauman, 2009; Patchin & Hinduja, 2006).

Despite the above-mentioned differences in the methodology used in previous studies and the different countries studied, some of the suggestions for coping with cyberbullying are common across international studies. These are telling someone, ignoring the bullying,
confronting the bully, and employing technical solutions, all of which will be described in more detail below.

**Telling someone**

When asking cybervictims whether they would tell someone if they were cyberbullied, studies have demonstrated somewhat mixed results. Some have found that many of the cybervictims (almost 80%) had told someone (Huang & Chou, 2010; Patchin & Hinduja, 2006). However, in a study by Smith et al. (2008) two surveys were conducted, one comprising pupils from a group of schools (Study group 1) and another involving pupils from other schools (Study group 2). The authors found that the rate of telling someone among cybervictims was lower than in the studies by Huang and Chou (2010) and Patchin and Hinduja (2006), with 58.6% in Study group 1 and 56.3% in Study group 2. Further, Smith et al. (2008) also investigated in Study group 1 whether pupils in general would tell someone, and found that 63.3% would do so.

Let us now turn to whom pupils in general and cybervictims in particular would tell if they were cyberbullied.

**Parents.** To begin with, telling parents seems to be an unusual response among both pupils in general and cybervictims. In studies of cybervictims, 11.6%–19.5% said they had told a parent (Huang & Chou, 2010; Patchin & Hinduja, 2006; Smith et al., 2008). However, to date only two studies have investigated how often Swedish cybervictims tell their parents they are being cyberbullied (Slonje, 2011, Slonje & Smith, 2008). In Sweden a study by Slonje and Smith (2008) found that 8.9% of the cybervictims (12- to 20-year-olds) had told their parents. In another study, 28.9% of the cybervictims (8- to 16-year-olds) reported that they had told their parents (Slonje, 2011). Furthermore, two studies found that among pupils in general 9%–10% suggested telling a parent (Aricak et al., 2008; Bauman, 2009).

**Teachers.** Further, studies have shown that both pupils in general and cybervictims would rarely report cyberbullying to their teachers (Aricak et al., 2008; Huang & Chou, 2010; Smith et al., 2008). More specifically, among cybervictims, Huang and Chou (2010) found that only 5.9% had told a teacher, and Smith et al. (2008) reported this rate to be 8.5%. Additionally, in another study only 1% of the pupils in general reported that they would tell a teacher if they were cyberbullied (Aricak et al., 2008).
Friends. Finally, a frequent response from cybervictims is telling a friend; this rate is 26%–33% across studies (Huang & Chou, 2010; Patchin & Hinduja, 2006; Smith et al., 2008). When asking Swedish cybervictims, Slonje and Smith (2008) found that 35.7% had told a friend, and Slonje (2011) reported this rate to be 58.9%. One study showed that 15% of pupils in general would tell a friend (Aricak et al., 2008); a study using another methodology (Cassidy et al., 2009) found that as many as 74% of pupils in general would tell a friend, although this result was based on a direct question as to whether they would do so.

Summary of telling someone. Previous research has thus indicated that it is more common that pupils in general and cybervictims in particular would consult a friend rather than a parent or teacher. Previous studies have suggested a number of possible explanations for this phenomenon. One could be that when entering adolescence, pupils seek independence from their parents and often turn to peers rather than adults for support (Aricak et al., 2008). Another could be that pupils fear that their access to technology would be restricted if they were to tell someone (Agatston et al., 2007; Juvonen & Gross, 2008; Li, 2010; Slonje & Smith, 2008; Smith et al., 2008).

Ignoring

In studies using multiple-choice questions, Li (2010) reported that 42.5% of the pupils in general reported that they would do nothing if they were cyberbullied. Further, Smith et al. (2008) found that 41.3% of pupils in general believed they would ignore it if they were cyberbullied. Additionally, in a study of cybervictims, 24.8% said that they had done nothing (Smith et al., 2008). Why is doing nothing such a common response? It has been suggested that this may be partly because cybervictims fear that if they show the offender a reaction, the cyberbullying might escalate (Li, 2010). However, some pupils believe cyberbullying is not such a serious issue and that it should therefore simply be ignored (Li, 2010).

Confronting

Another response from pupils in general regarding what they would do if cyberbullied is confronting the cyberbully; the rate of this suggestion varies between 3% and 36.3% across studies (Aricak et al., 2008; Bauman, 2009; Juvonen & Gross, 2008; Patchin & Hinduja, 2006; Smith et al., 2008). Actually, in some of the studies pupils reported that they would go
further and bully the cyberbully in return (Bauman, 2009; Smith et al., 2008). Interestingly, among cybervictims, Juvonen and Gross (2008) found that as many as 48% reported that they had retaliated against the bully. Further, most of them had retaliated against the bully offline (60%) whereas only 12% had done so online.

**Technical solutions**

In several studies pupils in general suggested technical solutions, such as changing one’s username (8.1%) (Aricak et al., 2008), changing one’s e-mail address or phone number (56.7%) (Juvonen & Gross, 2008), or blocking messages/identities (74.9%) (Smith et al., 2008). Among cybervictims, Juvonen and Gross (2008) reported that 67% had blocked someone, 33% had removed the person from their friend list on the website, and 26% had changed their usernames.

Although the findings of these international studies regarding which coping strategies used against cyberbullying are of interest, the works to prevent the bullying problem in these countries are different from how it is done in Sweden. Little research attention has been given to what pupils in general from Sweden suggest they would do to stop the cyberbullying situation.

**Differences in coping strategies between groups of pupils**

Research on offline bullying emphasizes the importance of examining the conditions under which prevention strategies work (Farrington & Ttofi, 2009; Roland, Bru, Midthassel, & Vaaland, 2010; Swedish National Agency for School Education, 2011). For example, in an evaluation of some anti-bullying programs in Sweden, it was highlighted that the effectiveness of actions to prevent offline bullying was age- and gender-specific (Swedish National Agency for School Education, 2011). Previous international findings concerning whether coping strategies against offline and cyberbullying vary with age and gender are discussed below.

**Age differences**

International research on offline bullying has found that younger pupils tend to cope by asking adults for help more often than older pupils do (Smith, Shu, & Madsen, 2001). One possible explanation for this could be that when entering adolescence, pupils seek
independence from their parents and often turn to peers rather than adults for support (Aricak et al., 2008). On the subject of coping strategies against cyberbullying, one Swedish study (Slonje, 2011) investigated whether there were any age differences in who cybervictims told about being cyberbullied; but no significant differences between the ages were found in that study. Further, Stacey (2009) conducted focus groups in Australia and found that younger pupils said they involved parents and school staff more often than older pupils did. The differences between the younger and older pupils were not investigated through statistical analysis. To conclude, the Swedish and international research has been scarce concerning whether suggested coping strategies against cyberbullying vary with age. Moreover, the study from Sweden that investigated this issue focused exclusively on cybervictims, and only whether they told someone rather than not the whole variety of strategies. Future research, therefore, should shed light on whether there are differences depending on age in the suggested coping strategies of pupils in general.

Gender differences

International research on offline bullying has shown that girls and boys tend to use different coping strategies (Smith et al., 2001). Whereas boys tend to cope by fighting back, girls do so by asking friends or adults for help. These findings may reflect a socialization into traditional gender roles, whereby girls are expected to talk about their feelings more and use less physical violence than boys (Adams, Kuebli, Boyle, & Fivush, 1995; Kowalski & Limber, 2007; Nansel et al., 2001). Similar findings have been found in the cyber context. Among 7th-9th grade pupils, Li (2006) showed that girls in Canada were more likely than boys to inform adults that they were being cyberbullied. Gender differences were also found in another study from the US, but only adults were included in the sample (Hoff & Mitchell, 2009). More specifically, males reported that they would use more active and physically retaliatory behavior, whereas females reported that they would use more passive and verbally retaliatory behavior. Due to cultural differences, Sweden is an interesting context for the investigation of whether there are gender-based differences in the suggested coping strategies of pupils. Sweden is known for its high ambitions for gender equality, and is classified as one of the world’s most gender-equal countries (Hausmann, Tyson, & Zahidi, 2013). For instance, school staff is obliged by law to promote gender equality (SFS 2010:800).
GENERAL AIMS

This thesis has three general aims. First, it aims to extend our understanding of an almost unexplored area: the relationship between cyberbullying and appearance. Being the first to study appearance-related cyberbullying through focus groups in the 9th grade, it aims to explore characteristics of the cybervictims and cyberbullies, and the reasons for as well as the content and effects of the appearance-related cyberbullying. This part of the thesis also addresses whether there is any relationship between cyberbullying and body esteem among pupils in the 4th, 6th, and 9th grades. Finally, it also investigates how common cyberbullying is among pupils in the 4th, 6th, and 9th grades, and whether there are any age and gender differences.

Second, the thesis aims to investigate the coping strategies that pupils in the 4th and 6th grades suggest they would use if they were cyberbullied, and whether there are differences in these strategies related to age and gender.

Third, the thesis aims to present a representative overview of the instruments designed to assess cyberbullying in order to provide information about their conceptual framework and existing data on their psychometric properties.
SUMMARY OF THE STUDIES

Three of four studies in this thesis investigated pupils’ experiences of cyberbullying in Gothenburg, Sweden, in different ways. Study IV differs from the others, as it is a systematic review with the purpose of providing a representative overview of the instruments designed to assess cyberbullying. Studies I and III are based on self-report questionnaires administered to pupils at 21 schools in the municipality of Gothenburg, Sweden. These studies include pupils in the 4th and 6th grades, and Study I also includes 9th graders from the same schools. In Study I all pupils were asked about their experiences of cybervictimization and body esteem; however, the questions “How common is it that cyberbullying is about appearance when [specified gender] cyberbully [specified gender]”? were posed only to the 6th and 9th graders. Study II used a different sample and approach than Studies I and III, through the use of focus groups. Table 3 outlines the variables investigated in the different grades in Studies I, II and III.

Table 3
Variables investigated in different grades in Studies I, II and III

<table>
<thead>
<tr>
<th>Study</th>
<th>Variable</th>
<th>n</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study I</td>
<td>Cybervictimization</td>
<td>1076</td>
<td>4, 6, &amp; 9</td>
</tr>
<tr>
<td>Study I</td>
<td>Body esteem</td>
<td>1076</td>
<td>4, 6, &amp; 9</td>
</tr>
<tr>
<td>Study I</td>
<td>“How common is it that cyberbullying is about appearance when [specified gender] cyberbully [specified gender]”?</td>
<td>767</td>
<td>6 &amp; 9</td>
</tr>
<tr>
<td>Study II</td>
<td>Experiences of appearance-related cyberbullying, with a focus on characteristics of the cybervictims and cyberbullies as well as the reasons for and the content and effects of the cyberbullying.</td>
<td>27</td>
<td>9</td>
</tr>
<tr>
<td>Study III</td>
<td>Suggested coping strategies</td>
<td>694</td>
<td>4 &amp; 6</td>
</tr>
</tbody>
</table>
The following section summarizes the aims, methods and main findings of the four studies.

Study I

Aims

The overall aim of Study I was to explore the relationship between being the victim of cyberbullying and body esteem among pupils in the 4th, 6th and 9th grades. A further purpose was to explore how often pupils (both cybervictims and others) in the 6th and 9th grades believe cyberbullying is directed at the victim’s appearance, and whether pupils’ views on these matters vary with gender and age, and between cybervictims and non-cybervictims. Finally, Study I investigated how common cyberbullying is among pupils in the 4th, 6th and 9th grades, and whether there are any age and gender differences.

Guided by previous research, the following hypotheses were evaluated:

(1) Lunde et al. (2007) found that being the victim of offline bullying was associated with poorer body esteem. They also showed that girls who were victims of offline bullying had poorer body esteem compared to boys. We thus hypothesized that victims of cyberbullying would report poorer body esteem than non-cybervictims. This was investigated among pupils in the 4th, 6th and 9th grades. We also hypothesized that girls who are victims of cyberbullying would report poorer body esteem compared to boys who are victims of cyberbullying. Additionally, we also examined whether there are age differences for the hypothesized relationships.

(2) Mishna et al. (2010) showed that many adolescents who were victims of cyberbullying reported that they were bullied online because of their appearance. In study I, we wished to expand on these findings by examining whether pupils (both cybervictims and others) in the 6th and 9th grades believe that cyberbullying is directed at the victim’s appearance. Thus, we hypothesized that pupils would report that cyberbullying is directed at the victim’s appearance. Kostanski and Gullone (2007) reported that offline teasing related to appearance is especially prevalent among girls. Thus, we also hypothesized that pupils would more often report that cyberbullying is directed at the victim’s appearance when girls are cybervictims compared to when boys are cybervictims. Additionally, we also examined whether the pupils’ views on these matters vary with age, and between cybervictims and non-cybervictims.
Participants

Study I included the same pupils in the 4th and 6th grades as Study III; however, Study I also included 9th graders from the same schools. Study I was conducted at the end of 2010 and the beginning of 2011. Public schools were randomly selected from the list of schools in the municipality of Gothenburg, Sweden, to represent different socioeconomic areas in the city. In all, 21 schools were approached with a request for participant recruitment directed at the headmaster of each school. Only one of the selected schools declined to participate, and thus, another school was randomly selected in the same area. At each school, one class from each grade (4th, 6th and 9th) was randomly chosen. Active parental consent was sought from the 4th- and 6th-grade pupils’ parents; active parental consent was not needed for the 9th graders. A total of 1,404 pupils were asked to participate Study I. Of these, 255 declined or were otherwise absent during the lesson when Study I took place (response rate 82%). The total number of pupils who participated in Study I was 1,149 (572 girls and 577 boys): 342 from the 4th grade (mean age: 10.1 years ± .37), 387 from the 6th grade (mean age: 12.0 years ± .35), and 420 from the 9th grade (mean age: 15.0 years ± .25).

Measures

Cybervictimization. Participants were given the following oral definition of cyberbullying before filling out the questionnaire: “A person is cyberbullied when he or she repeatedly is exposed to aggressive and deliberate behaviors on the internet or through a mobile phone”. Unfortunately, due to a mistake the written definition in the questionnaire did not include the criterion of imbalance of power, which states: “The person cannot defend him- or herself. It is not cyberbullying when teasing is done in a friendly and playful way.” However, hopefully, the oral definition and the conversation that took place between the researcher and/or research assistant and the participants before they filled out the questionnaire gave a stronger impression than the written definition they had been given.

The global question, cut-off, and reference period used in Study I were obtained from the study by Slonje and Smith (2008). The global question to the pupils was: “Have you been cyberbullied within the past months?” This was a multiple-choice question, with the following response alternatives: 1 (No, I have not been cyberbullied in the past months), 2 (Yes, it has happened once or twice), 3 (Yes, two or three times per month), 4 (Yes, about once per week), and 5 (Yes, several times per week). For analyses, the responses 2-5 were collapsed into 1 (Yes, it’s happened once or more) and the frequency 1 into 0 (No, I have not been
cyberbullied in the past months). This was done because, as previously mentioned, some researchers have argued that the criterion of repetition looks different in cyberbullying than in offline bullying (Menesini et al., 2011, Menesini et al., 2012; Slonje et al., 2012).

The global question and reference period used in Study I, and in the study by Slonje and Smith (2008), was obtained from Olweus (1999). Olweus’s global question, often used to measure the prevalence of offline bullying, states: “How often have you been bullied in school in the past couple of months?”. This is a multiple choice question with the same response alternatives used in Study I and in the study by Slonje and Smith (2008). According to Olweus & Kallestad (2010), both empirical research and conceptual arguments indicate that this global question with well-defined response alternatives is suitable for measuring the prevalence of offline bullying.

**Body esteem.** Body esteem was measured using the Body Esteem Scale for Adolescents and Adults (BESAA), designed by Mendelson et al. (2001). The BESAA has been translated into Swedish and validated (Erling & Hwang, 2004), and has good reliability and validity data for children as young as seven years old (Hill, 2011). The BESAA has three subscales: BE-Appearance (general feelings about one’s appearance, e.g. “I like what I see when I look in the mirror”) (10 items), BE-Weight (satisfaction with one’s weight, e.g. “I really like what I weigh”) (8 items), and BE-Attribution (evaluations attributed to others about one’s body and appearance, e.g. “People my own age like my looks”) (5 items). Participants indicated their degree of agreement with each statement on a five-point Likert scale ranging from 0 (never) to 4 (always). Thus, lower scores indicate greater dissatisfaction within each dimension of body esteem. In the present sample, the subscales had high internal consistency: BE-Appearance $\alpha = .91$; BE-Weight $\alpha = .92$; and BE-Attribution $\alpha = .71$. For the purposes of Study I, individual mean scores (ranging from 0 to 4) were calculated for each subscale, and subsequently used in the analyses.

**Belief that cyberbullying is directed at the victim’s appearance.** In order to investigate whether the participants in the 6th and 9th grades believed cyberbullying was directed at the victim’s appearance, we constructed the following question: “How common is it that cyberbullying is about appearance when [specified gender] cyberbully [specified gender]”? This question was varied in the following four ways: when girls cyberbully girls, when girls cyberbully boys, when boys cyberbully boys, and when boys cyberbully girls. Participants indicated their degree of agreement with each statement on a five-point Likert
scale ranging from 0 (never) to 4 (always). For analyses, the responses 3-4 were collapsed into 1 (often and always), and the frequencies 0, 1 and 2 to were collapsed into 0 (never, seldom, and sometimes). These questions were included only for the 6th and 9th grades, as we wanted to use a shorter questionnaire for the youngest pupils so that it would be easier for them to answer all the questions without tiring.

Data analysis

Questionnaires with more than 40% missing answers on any of the three BESAA subscales were omitted from the analysis (n = 44). Imputation with the EM algorithm in SPSS version 19 was used to handle the remaining missing values on the three BESAA subscales. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, covariance matrices, and multicollinearity. Individuals with scores exceeding the critical value of the Mahalanobis distance, 16.27 (Pallant, 2010), were excluded from the dataset (n = 9). Additionally, of the total group of pupils, 20 did not answer the question about whether they had been cybervictimized, and were thus excluded from the analyses. The final sample, as used in the present data analysis, contained 1,076 pupils (546 girls and 530 boys): 321 from the 4th grade, 366 from the 6th grade, and 389 from the 9th grade.

Significance levels set at p < .05 were used for all analyses. Analysis for categorical data was done using chi-square. Additionally, to analyze potential mean differences in body esteem between cybervictims and non-cybervictims, taking gender and grade into account, a 2 (cybervictims vs. non-cybervictims) × 2 (gender girls vs. boys) × 3 (grade: 4 vs. 6 vs. 9) MANOVA was carried out with the three subscales (BE-Appearance, BE-Weight and BE-Attribution) of the BESAA as the dependent variables.

Main findings

The main finding of Study I was that victims of cyberbullying in the 4th, 6th and 9th grades reported poorer body esteem than non-cybervictims (in support of Hypothesis 1). More specifically, cybervictims reported a poorer view of their general appearance and of their weight than non-cybervictims. With regard to gender differences, we found that girls who were victims of cyberbullying reported a poorer view of their general appearance compared to boys who were victims of cyberbullying.
The findings further showed that pupils in the 6th and 9th grades believed it was common for cyberbullying to be directed at the victim’s appearance (Hypothesis 2). Furthermore, we found that pupils more often believed that physical appearance was involved when girls were possible victims of cyberbullying than when boys were possible cybervictims. This view was more common among pupils in the 9th grade compared to those in the 6th grade.

Finally, 10.4% of all the participants in the 4th, 6th and 9th grades reported being cyberbullied. The findings in Study I showed that being cyberbullied was more common among pupils in the 4th grade compared to older pupils, while there were no differences between the 6th and 9th grades. Findings further showed that girls in the 4th grade were more likely to report cybervictimization compared with boys in the 4th grade. There were no gender differences in the 6th and 9th grades.

Study II

Aim

Study II aimed to explore adolescents’ experiences of appearance-related cyberbullying in focus groups, by addressing the following questions: (1) What characterizes adolescents who are involved as victims or bullies in appearance-related cyberbullying? (2) In what specific ways are adolescents cyberbullied about their appearance? (3) Why is cyberbullying directed at appearance? (4) What effects are associated with appearance-related cyberbullying?

Participants

The data collection took place during the autumn of 2012. Two 9th-grade teachers from two different schools (one public and one private) were approached with a request for participant recruitment. The sample is therefore to be regarded as a convenience sample. The two schools represented different socioeconomic areas in the city of Gothenburg, Sweden. The two teachers were informed about Study II, and both chose to let us approach their pupils with a request for participation. Invitations to participate in Study II were initiated through the teachers forwarding a written letter with information about Study II to their pupils. This letter explained that participation was voluntary, and that the participants’ answers would be treated anonymously. The letter also informed the pupils that it was not necessary to have first-hand experience of cyberbullying as either a victim or a bully in order to be part of the focus
groups, since the aim of Study II was to learn more about pupils’ general experiences of cyberbullying.

Shortly thereafter, the moderator and co-moderator visited the classes during school hours. The moderator verbally informed the pupils about the purpose of Study II (general experiences regarding appearance-related cyberbullying) and gave them the possibility to ask questions about the upcoming focus groups. After receiving the information, the pupils were able to volunteer to participate in the focus groups. This procedure was followed with only one exception: at one school the contacted teacher gave the information to the classes before the moderator and co-moderator arrived. At this school, the teacher also appointed five of the volunteering girls and five of the volunteering boys to participate. At the other school, the moderator informed the pupils about Study II, and all boys and girls who wished to participate did so. Even though they were free to discontinue their participation at any time, all of the volunteering pupils followed through with the focus groups.

Four focus groups were conducted with 27 pupils (14 boys and 13) in the 9th grade (15 years of age). The four groups included eight girls, nine boys, five girls and five boys. Each focus group was homogenous, meaning that the participants of each focus group shared gender, grade and school, in order to encourage them to be more comfortable to speak freely.

**Procedure**

The moderator (a female clinical psychologist) led all four focus groups, accompanied by a female co-moderator, who was finishing her Master’s degree in Clinical Psychology. Both the moderator and co-moderator had received training in semi-structured interviewing. The focus groups took place in separate rooms at each of the two schools during school hours. The focus groups lasted 45–60 minutes, and discussions were audio recorded. All the pupils actively participated in the discussion. Given the sensitive topic of the research, the moderator was attentive to whether the pupils showed any signs of concern or stress. Their well-being was always regarded as more important than the research questions.

Every focus group ended with a dialogue about the pupils’ experiences of participating in the group. In addition, all pupils in every class received written information about where to turn to if they were cyberbullied or knew someone who was.
**Interview guide**

A semi-structured interview guide was created to ensure that the questions asked addressed the aims of Study II. After the first two focus groups (one with boys and one with girls) had been completed, the two moderators discussed whether the interview guide needed alteration. Both moderators agreed that there was no need to adjust the guide.

The interview guide started with one vignette, developed by the authors, to stimulate discussion: “Sara (or Jonas; a girl in the girl groups and a boy in the boy groups) has posted a new photo of herself on Facebook. When she checks Facebook later that evening, she sees that someone has commented on the photo by posting nasty and mean things about how she looks.” After reading the vignette, the pupils were asked questions about what characterizes adolescents who are involved as victims or bullies in appearance-related cyberbullying: In what specific ways are pupils cyberbullied about their appearance? Why is cyberbullying directed at appearance? What effects are associated with appearance-related cyberbullying? The same questions were asked in all focus groups, with various probes, depending on the pupils’ answers and the need for clarification.

**Data analysis**

The recordings from the four focus groups were transcribed. As the area in question is under-researched and the design of Study II was exploratory, a thematic, semantic (i.e. looking at the explicit or surface level of speech) analysis was conducted in accordance with the methodology suggested by Braun and Clarke (2006). Since the analysis was based on data rather than theory, Study II is to be viewed as inductive (i.e., codes and themes are strongly linked to what was said in the groups). The thematic analysis was done on the material from all four focus groups, with the aim of obtaining a rich and diversified result.

The thematic analysis began with repeated reading of the interview transcripts in order to grasp what the participants had said about the research questions. During this reading, our ambition was to be as open as possible to avoid allowing our preunderstanding about appearance-related cyberbullying to influence the process. The process continued with a review of the transcripts to identify and distinguish the most basic meaningful segments of the data. Segments that had similar content and were prevalent through the transcripts were collated and grouped into potential themes and subthemes. However, it should be mentioned that, in line with Braun and Clarke’s (2006) suggestions, we did not solely rely on prevalence in the search for our themes. Thus, some themes were built from segments that were not as prevalent as others but nevertheless contributed to interesting reflections on adolescents’
experiences concerning appearance-related cyberbullying. The potential themes and subthemes were reviewed throughout the process and constantly compared to the transcripts to ensure that they remained true to the data. Throughout this process, we were able to combine some of the themes and subthemes, a process that resulted in seven main themes and four subthemes. Finally, all themes and subthemes were named, with quotations from the focus groups chosen to illustrate the content of the themes.

Once the themes and subthemes had been distinguished, the moderator read through all the focus group transcripts. For each of these transcripts, she formed an opinion about which of the seven main themes and their four subthemes (if any) could be distinguished in each focus group. The judgment of whether or not the themes and subthemes were present in every focus group was identical between the raters (moderator and co-moderator) in three of the focus groups, with excellent (κ = 1.0) inter-rater agreement. In the group with nine boys, the judgment of the two raters was identical for seven themes and two subthemes. However, the ratings differed for two subthemes, giving an inter-rater agreement that was substantial (κ = 0.87) for this focus group. The disagreements were discussed, which led to a modification of the names of these two subthemes.

**Main findings**

Study II explored pupils’ experiences of appearance-related cyberbullying. Seven themes and four subthemes emerged; see Table 4.
Table 4
Themes and subthemes concerning pupils’ views of appearance-related cyberbullying

1. Appearance-related cyberbullying is especially aimed at girls
2. Appearance-related cyberbullying, a potent strategy when attempting to hurt girls
3. Cyberbullies and their reasons
4. Cybervictims and cyberbullies can be found everywhere online
5. The content of appearance-related cyberbullying
   5.1. Cyberbullying aimed at one’s style
   5.2. Cyberbullying directed at one’s body
6. Girls’ attention-seeking on social networking sites and appearance-related cyberbullying
   6.1. Appearance is what counts online
   6.2. Girls try to live up to appearance ideals on social networking sites
7. Girls and boys react differently to appearance-related bullying

The following is a short description of the themes and subthemes in Table 4.

1. **Appearance-related cyberbullying is especially aimed at girls.** All pupils stated that it is common to be the target of appearance-related cyberbullying. The pupils were of the opinion that anyone could be the victim of appearance-related cyberbullying, but that it is usually a girl. The pupils also reported that, in addition to girls, cyberbullying targeted some other groups more than others, namely those who differ in their appearance and adolescents (compared to other age groups).

2. **Appearance-related cyberbullying, a potent strategy when attempting to hurt girls.** The pupils repeatedly returned to the issue of appearance-related cyberbullying being more relevant to girls than to boys. Moreover, they described it as more “effective” to cyberbully girls than boys about their appearance. The pupils said that there does not have to be anything different about the cybervictimized girls’ appearance. Instead, appearance becomes a way to get to girls who cyberbullies for some reason want to hurt. This is exemplified in the following statement by a boy: “You tell them they’re ugly, that they’re fat, and then they don’t have any confidence and think bad about themselves.”
3. Cyberbullies and their reasons. Just as anyone can be the victim of appearance-related cyberbullying, the pupils claimed that a cyberbully can generally also be anyone. Further, they reported a range of reasons for why cyberbullying is directed at appearance. First, they believed cyberbullies want to attain higher status by engaging in appearance-related cyberbullying. Second, they expressed the idea that cyberbullies feel bad about themselves and therefore engage in appearance-related cyberbullying. Third, they also believed that those who differ in their appearance provoke others to cyberbully them.

4. Cybervictims and cyberbullies can be found everywhere online. The pupils reported that cybervictims and cyberbullies can be found everywhere pupils interact online or through mobile phones. The most common forums for negative appearance-related comments were different social networking sites, such as Facebook, Instagram, Twitter, chats and blogs.

5. The content of appearance-related cyberbullying. When analyzing the focus group discussions in terms of what types of appearance-related comments cybervictims receive, it became apparent that the content of cyberbullying can be divided into cyberbullying aimed at one’s style and cyberbullying directed at one’s body. Cyberbullying aimed at style often targets, for instance, one’s hair or clothing style, while cyberbullying directed at the body is often aimed at specific parts of the body, or at weight or muscularity. The content of the cyberbullying aimed at one’s style and that directed at one’s body differed for boys and girls.

5.1. Cyberbullying aimed at one’s style. When it comes to cyberbullying aimed at one’s style, the pupils talked about boys and girls receiving different comments. They said they receive comments based on what people see in the photos and presume is their style. For example, among the boys it was described as common to receive comments for looking or seeming “gay”. The boys emphasized that looking or seeming gay was perceived as negative and something to be avoided; they discussed different ways to keep from seeming gay, and according to them, the best way was to not upload photos of themselves at all. Among the girls it was described as common to be called a “whore” or “slut”.

5.2. Cyberbullying directed at one’s body. When it comes to cyberbullying directed at the body, the pupils reported that girls receive more comments about their bodies
than boys do. Further, the girls talked more in their focus groups about receiving negative comments about being fat, while the boys mentioned being cyberbullied for not being muscular enough.

6. **Girls’ attention-seeking on social networking sites and appearance-related cyberbullying.** The pupils explained that seeking attention on social networking sites creates risks for appearance-related cyberbullying among girls. The pupils’ discussion was coded into two subthemes: *Appearance is what counts online*, and *Girls try to live up to ideals of appearance on social networking sites.*

6.1. **Appearance is what counts online.** The pupils, especially the girls, explained that they believe the purpose of social networking sites like Facebook and Instagram is to expose oneself to get attention, but that in doing so, one risks receiving negative attention and being cyberbullied.

6.2. **Girls try to live up to appearance ideals on social networking sites.** The girls talked a great deal about body ideals (being very skinny and having large breasts, a shapely rear end and perfect hair) and how they are trying to live up to the thin but shapely female body ideal on social networking sites, by carefully choosing their best photos to upload.

7. **Girls and boys react differently to appearance-related bullying.** The negative effects associated with appearance-related cyberbullying differ for boys and girls. Boys tend to act out, or to take no offense at all, while girls reported having less self-confidence and self-esteem, being depressed, and even thinking of committing suicide due to appearance-related cyberbullying. Girls also described the effects as sometimes being irreversible.
Study III

Aims

The aim of Study III was to investigate the coping strategies that pupils in the 4th and 6th grades suggested they would use if they were cyberbullied, with a special focus on whether there are differences in these suggestions that are related to age and gender. The following specific questions guided our investigation: (1) What coping strategies do pupils suggest they would use if they were cyberbullied? (2) Are there any age differences in the coping strategies they mention? (3) Are there any gender differences in the coping strategies mentioned?

Participants

Study III was conducted at the end of 2010 and the beginning of 2011 (see description of Study I), and included the same pupils in the 4th and 6th grades as Study I. The number of eligible pupils was 905, and as 176 declined to participate or were absent during the lesson when Study III took place, the total number of pupils who participated in Study III was 729 (80.6% of the total sample). Overall, 702 pupils answered the question about what coping strategies they would use if cyberbullied. Of these pupils, eight were excluded because they did not give a valid answer, for example if they gave an incomprehensible answer or appeared to have misunderstood the question. Hence, 694 pupils (355 girls and 339 boys) – 326 from the 4th grade (mean age: 10.1 years ± .37) and 368 from the 6th grade (mean age: 12.0 years ± .35) – were included in the analysis.

Measures

Suggestions for coping strategies if cyberbullied. Regarding the definition of cyberbullying presented to the pupils, see the above description of Study III.

Suggested coping strategies were examined with the open-ended question “If you were cyberbullied, what would you do to stop it?”

Data analysis

A mixed methods research approach (Teddlie & Tashakkori, 2010) was considered the most suitable for Study III. Using qualitative thematic analysis (Braun and Clarke, 2006), we coded the pupils’ answers into themes. Through quantitative analyses, we were also able to
measure how the answers were distributed among the participants and analyze whether there were age or gender differences in these suggestions.

For the thematic analysis, an abductive approach was used (see Thornberg, 2011a). More specifically, we used our knowledge about previous international research findings in a data-sensitive manner, trying to be open and perceptive to the data, without rejecting our knowledge about previous international research.

Thematic analysis was used, as described by Braun and Clark (2006), to identify themes in participants’ suggestions of coping strategies. Initially, the thematic analysis started with a search of the dataset for recurring patterns and codes. Next, selected patterns and codes were merged into larger themes to describe the content of the data. Finally, all themes and subthemes were named, and quotations from the pupils’ answers were chosen to illustrate the content of the themes.

The statistics computer program SPSS version 19 was used to produce descriptive statistics on the distribution of answers concerning coping strategies. Chi-square tests were used to investigate possible differences between groups.

Additionally, to ensure reliability in the thematic analysis, 30% of the interviews (randomly selected from the transcribed interviews) were re-coded. The overall inter-rater percent agreement between the first and second raters was 99.2% (ranging from 92.2% to 100% for the different themes) with an average kappa of .960.

**Main findings**

Suggested coping strategies. The answers pupils gave concerning what they would do if cyberbullied were coded into six themes and 12 subthemes; see Table 5.
Table 5
The six themes and 12 subthemes from the question “If you were cyberbullied, what would you do to stop it?”

<table>
<thead>
<tr>
<th>1. Tell someone</th>
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</thead>
<tbody>
<tr>
<td>1.1. Tell a parent</td>
</tr>
<tr>
<td>1.2. Tell a teacher</td>
</tr>
<tr>
<td>1.3. Tell a professional</td>
</tr>
<tr>
<td>1.4. Tell a friend</td>
</tr>
<tr>
<td>2. Report</td>
</tr>
<tr>
<td>2.1. Report to the police</td>
</tr>
<tr>
<td>2.2. Report to the website</td>
</tr>
<tr>
<td>3. Ignore</td>
</tr>
<tr>
<td>3.1. Avoid</td>
</tr>
<tr>
<td>3.2. Don’t care</td>
</tr>
<tr>
<td>4. Confront</td>
</tr>
<tr>
<td>4.1. Confront in person</td>
</tr>
<tr>
<td>4.1.1. Retaliate offline</td>
</tr>
<tr>
<td>4.2. Confront online</td>
</tr>
<tr>
<td>4.2.1. Retaliate online</td>
</tr>
<tr>
<td>5. Technical solutions</td>
</tr>
<tr>
<td>6. Don’t know</td>
</tr>
</tbody>
</table>
Distribution of answers in the themes. The distribution of the pupils’ answers regarding what they would do if cyberbullied in the different themes and subthemes is presented in Table 6. The themes that most frequently occurred in the pupils’ answers were to tell someone, confront the bully, and ignore. Some, but not many, pupils considered technical solutions, report, or suggested they did not know.

Age differences. Chi-square tests revealed that significant age differences could be found in some of the coping strategies (See Table 6). For instance, findings showed that younger pupils more often suggested to tell a parent than did older pupils, who more often suggested to tell a friend.

Gender differences. Significant gender differences in coping strategies were identified using chi-square tests (See Table 6). For example, girls reported that they were more likely than boys to tell parents and teachers, as well as friends. Boys, on the other hand, were more likely to suggest retaliate in an offline context.
Table 6
Percentages and numbers of pupils who included the themes in their suggested coping strategies

<table>
<thead>
<tr>
<th>Coping strategy</th>
<th>4th grade</th>
<th>6th grade</th>
<th>$\chi^2$</th>
<th>Girls</th>
<th>Boys</th>
<th>$\chi^2$</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tell someone</td>
<td>69.3 (226)</td>
<td>71.5 (263)</td>
<td>-</td>
<td>78.3 (278)</td>
<td>62.2 (211)</td>
<td>21.51***</td>
<td>70.5 (489)</td>
</tr>
<tr>
<td>1.1. Tell a parent</td>
<td>45.1 (147)</td>
<td>34.5 (127)</td>
<td>8.10**</td>
<td>45.6 (162)</td>
<td>33.0 (112)</td>
<td>11.51***</td>
<td>39.5 (274)</td>
</tr>
<tr>
<td>1.2. Tell a teacher</td>
<td>20.6 (67)</td>
<td>19.8 (73)</td>
<td>-</td>
<td>24.2 (86)</td>
<td>15.9 (54)</td>
<td>7.41**</td>
<td>20.2 (140)</td>
</tr>
<tr>
<td>1.3. Tell a professional</td>
<td>2.5 (8)</td>
<td>3.3 (12)</td>
<td>-</td>
<td>3.9 (14)</td>
<td>1.8 (6)</td>
<td>-</td>
<td>2.9 (20)</td>
</tr>
<tr>
<td>1.4. Tell a friend</td>
<td>0.9 (3)</td>
<td>4.1 (15)</td>
<td>6.82**</td>
<td>4.2 (15)</td>
<td>0.9 (3)</td>
<td>7.66**</td>
<td>2.6 (18)</td>
</tr>
<tr>
<td>2. Report</td>
<td>4.0 (13)</td>
<td>6.8 (25)</td>
<td>-</td>
<td>5.9 (21)</td>
<td>5.0 (17)</td>
<td>-</td>
<td>5.5 (38)</td>
</tr>
<tr>
<td>2.1. Report to the police</td>
<td>2.8 (9)</td>
<td>2.2 (8)</td>
<td>-</td>
<td>2.0 (7)</td>
<td>2.9 (10)</td>
<td>-</td>
<td>2.4 (17)</td>
</tr>
<tr>
<td>2.2. Report to the website</td>
<td>0.3 (1)</td>
<td>3.0 (11)</td>
<td>7.32**</td>
<td>2.3 (8)</td>
<td>1.2 (4)</td>
<td>-</td>
<td>1.7 (12)</td>
</tr>
<tr>
<td>3. Ignore</td>
<td>15.6 (51)</td>
<td>17.9 (66)</td>
<td>-</td>
<td>15.8 (56)</td>
<td>18.0 (61)</td>
<td>-</td>
<td>16.9 (117)</td>
</tr>
<tr>
<td>3.1. Avoid</td>
<td>11.7 (38)</td>
<td>6.8 (25)</td>
<td>4.95*</td>
<td>9.3 (33)</td>
<td>8.8 (30)</td>
<td>-</td>
<td>9.1 (63)</td>
</tr>
<tr>
<td>3.2. Don’t care</td>
<td>4.3 (14)</td>
<td>9.0 (33)</td>
<td>5.98*</td>
<td>6.8 (24)</td>
<td>6.8 (23)</td>
<td>-</td>
<td>6.8 (47)</td>
</tr>
<tr>
<td>4. Confront the bully</td>
<td>21.2 (69)</td>
<td>29.3 (108)</td>
<td>6.09*</td>
<td>25.6 (91)</td>
<td>25.4 (86)</td>
<td>-</td>
<td>25.5 (177)</td>
</tr>
<tr>
<td>4.1. Confront in person</td>
<td>3.7 (12)</td>
<td>10.9 (40)</td>
<td>12.89***</td>
<td>6.2 (22)</td>
<td>8.8 (30)</td>
<td>-</td>
<td>7.5 (52)</td>
</tr>
<tr>
<td>4.1.1. Retaliate offline</td>
<td>0.6 (2)</td>
<td>1.1 (4)</td>
<td>-</td>
<td>0.0 (0)</td>
<td>1.8 (6)</td>
<td>6.34*</td>
<td>0.9 (6)</td>
</tr>
<tr>
<td>4.2. Confront online</td>
<td>5.8 (19)</td>
<td>2.2 (8)</td>
<td>6.17*</td>
<td>3.7 (13)</td>
<td>4.1 (14)</td>
<td>-</td>
<td>3.9 (27)</td>
</tr>
<tr>
<td>4.2.1. Retaliate online</td>
<td>1.8 (6)</td>
<td>1.1 (4)</td>
<td>-</td>
<td>1.1 (4)</td>
<td>1.8 (6)</td>
<td>-</td>
<td>1.4 (10)</td>
</tr>
<tr>
<td>5. Technical solutions</td>
<td>6.7 (22)</td>
<td>6.5 (24)</td>
<td>-</td>
<td>7.3 (26)</td>
<td>5.9 (20)</td>
<td>-</td>
<td>6.6 (46)</td>
</tr>
<tr>
<td>6. Don’t know</td>
<td>9.2 (30)</td>
<td>4.6 (17)</td>
<td>4.99*</td>
<td>6.2 (22)</td>
<td>7.4 (25)</td>
<td>-</td>
<td>6.8 (47)</td>
</tr>
</tbody>
</table>

Note. A participant’s answer may have been coded into several themes.
*p < .05, **p < .01, ***p < .001
Study IV

Aims

The overall aim of Study IV was to present an overview of information on instruments designed to assess the prevalence of cyberbullying. The specific aims of Study IV were to: (1) present an overview of the existing cyberbullying instruments, (2) provide information on their specific characteristics, (3) collect existing data on their psychometric properties, and thus (4) help readers decide which instrument is adequate for the design and intentions of their work.

Design and methods

A systematic literature review, focusing on instruments developed for cyberbullying assessment, was conducted in six steps (see Table 7).

Table 7

Steps of the systematic literature review

1. Literature search/Development of the coding scheme and manual
2. Selecting relevant publications and instruments
3. First rater training and revision of the coding scheme and manual
4. Second rater training and revision of the coding scheme and manual
5. Coding of relevant publications and instruments
6. Analysis

1. Literature search/Development of the coding scheme and manual: The literature was searched using the electronic databases EbscoHost, ScienceDirect, OVID and InformaWorld. Another search strategy used was to contact different members of the European network COST Action IS0801 “Cyberbullying: Coping with negative and enhancing positive uses of new technologies, in relationships in educational settings”. This network consists of leading cyberbullying researchers in Europe and Australia, who were asked by e-mail to send us their forthcoming publications and instruments.

The search terms covered were: chat bullying, chat victimization, cyber mobbing, cybermobbing, cyber bullying, cyberbullying, cyber victimization, cyber aggression, cyber-aggression, cyber harassment, digital bullying, e-bullying, electronic bullying, electronic
harassment, electronic victimization, internet bullying, online harassment, online bullying, online victimization, online bullying, phone bullying, SMS bullying, text bullying, virtual aggression, and virtual mobbing.

The search of the databases was limited to publications that were advanced published online or published in journals prior to October, 2010, and generated 636 citations.

Simultaneous with the literature search, a coding scheme was developed to assess and evaluate the information deemed relevant concerning the quality of the instruments. It included the subsections: general information (e.g., authors, type of publication, country), details of the study (e.g., timeframe of data, method of data collection), details of the cyberbullying instrument (e.g., name, language, information source, design of items), and psychometric properties (e.g., subscales, reliability, validity, statistical information). An accompanying coding manual was developed with definitions, descriptions and guidance for the raters’ decisions. The raters were the nine authors of this review.

2. Selecting relevant publications and instruments. The abstracts of all 636 publications were examined and, as necessary or if we were uncertain about something, we gathered further information from the full publications and by contacting the authors. The criteria for inclusion were that: 1) the publication was in English, and that the instruments received from the authors were translated into English for purpose of analysis, 2) the instrument incorporated at least one of the following topics: cyberbullying, cybervictimization, cyber harassment, or cyberaggression, 3) the study used questionnaires, surveys, vignettes or qualitative measures with a standardized coding scheme, 4) information on psychometric properties was provided, and 5) the items of the instruments were available. If either the instrument or the psychometric information was missing from the publication, the authors were contacted and asked if they could provide the missing information. Non-empirical studies, those not using specified measures, and those only reporting a global question about cyberbullying or cybervictimization, or single-item instruments, were excluded. There are several reasons for not using single-item instruments when measuring continuous bullying constructs. One is that single items are often less reliable than multiple-item instruments. Another is that single items can only distinguish moderate to large differences and cannot discern fine degrees of an attribute (Griezel, Craven, Yeung, & Finger, 2008). Individual items also lack scope and the ability to reveal detail (Farrington, 1993; Smith, Schneider, Smith, & Ananiadou, 2004). We also did not include research exclusively dedicated to sexual harassment online. Furthermore, we excluded publications or instruments
from the review when the contacted authors did not provide us with the necessary information.

A total of 61 studies fulfilled the delineated selection criteria, and were included in the following review.

3. First rater training and revision of the coding scheme and manual. For the first rater training, five of the 61 studies were randomly selected and rated by the nine authors. This step revealed some weaknesses in and misunderstandings of the coding scheme and manual, resulting in a first revision.

4. Second rater training and revision of the coding scheme and manual. In the second step, nine further studies of the 61 were randomly selected, and rated by all authors to test the quality of the revised coding scheme and manual. Inter-rater reliability was assessed by computing the agreement rates (Orwin & Vevea, 2009) for all the variables, which were between 60% and 100%. Items with a value of 60%-80% were considered a problem. All problems concerned how to rate subscales and validity; this was addressed by investigating the reasons for this and coordinating the rating procedures through further training. Additional revisions were made to both the coding scheme and the manual.

5. Coding of publications and instruments. To conclude, the remaining 52 publications were distributed equally among the nine authors to be rated individually.

6. Analyses. Multiple publications by the same authors using the same instrument (including revised versions) were combined for the analyses, leaving 44 of 61 instruments to be analyzed.

Main findings

As mentioned, the instruments included in Study IV are categorized into two different groups, cyberbullying instruments and related instruments, in the presentation of the study details in tabular format (see Tables 8, 9, 10, 11 for an overview of the instruments included in Study IV), whereas our major findings for both groups are described jointly in the text. To begin with, I account for the instruments’ conceptual and definitional basis. Thereafter, I focus on the psychometric properties of the instruments to explain the main findings.
The following is a description of the contents of the four tables. Table 8 (cyberbullying instruments) and Table 9 (related instruments) provide an overview of the elements derived from the definitions (as specified by the developers/authors) of the instruments, as well as concepts and number of items for each instrument, and information about the different types of electronic media/devices. Table 10 (cyberbullying instruments) and Table 11 (related instruments) outline the psychometric properties of each group of instruments. Furthermore, both Table 10 and Table 11 outline the titles of the selected instruments as well as sample characteristics, description of subscales and, if a factor analysis was conducted, the reliability and types of validity. The purpose of both the tables and the written information is to help researchers select the instrument that best to their needs.
Table 8
Instrument concepts\(^a\) (number of items), elements in the definition of cyberbullying in cyberbullying instruments\(^b\) and types of device/media assessed

<table>
<thead>
<tr>
<th>Cyberbullying Instrument</th>
<th>Instrument concepts (number of items)</th>
<th>Definition</th>
<th>Device/Media-specific items</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyberbullying and Cybervictimization Questionnaire</td>
<td>CB (9 items) CV (9 items)</td>
<td>E, I, R</td>
<td>None reported</td>
<td>Ang and Goh (2010)</td>
</tr>
<tr>
<td>Questionnaire of Cyberbullying (QoCB)</td>
<td>CB (5 items) CV (7 items) Coping strategies (3 items)</td>
<td>E, I, R</td>
<td>Mobile phone, E-mail, Picture/Video clip, Internet, SMS</td>
<td>Aricak, Siyahhan, Uzunhasanoglu, Saribeyoglu, Ciplak, Yilmaz, and Memmedov (2008)</td>
</tr>
<tr>
<td>Cyberbullying questionnaire</td>
<td>CB (4 items) CV (1 item) Future CB (2 items)</td>
<td>E, I, R</td>
<td>None reported</td>
<td>Aricak (2009)</td>
</tr>
<tr>
<td>–</td>
<td>CV (4 items)</td>
<td>E, I</td>
<td>Mobile phone, E-mail, Chat, Internet</td>
<td>Brandtzaeg, Staksrud, Hagen, and Wold (2009)</td>
</tr>
<tr>
<td>The Cyberbullying Questionnaire (CBQ)</td>
<td>CB (16 items)</td>
<td>E, I, R, IP</td>
<td>Mobile phone, E-mail, Picture/Video clip, Internet, Hacking, Online group</td>
<td>Calvete, Orue, Estévez, Villardón, and Padilla (2010)</td>
</tr>
</tbody>
</table>

*Note. A dash (–) is used in the table to indicate when no data were reported in the publications.*

All publications that are referred to as published 2011 were included because they were also advanced published online before October 2010.

\(^a\) The following letters represent concepts for cyberbullying instrument: CB = perpetrator of Cyberbullying; CV = Cybervictimization.

\(^b\) These elements have been generated from the cyberbullying literature (Tokunaga, 2010). Following letters represent elements in the definitions of cyberbullying (as specified by the developers): Electronic device/media = E; Intentionality = I; Repetition = R; Imbalance of Power = IP; Anonymity = A; Public/Private = P.
<table>
<thead>
<tr>
<th>Cyberbullying Instrument</th>
<th>Instrument concepts (number of items)</th>
<th>Definition</th>
<th>Device/Media-specific items</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyber Bullying and Victimization Questionnaire</td>
<td>CB (14 items) CV (14 items)</td>
<td>E, I, R, IP</td>
<td>Mobile phone, E-mail, Website, Picture/Video clip, Internet, MySpace, Text message, Online games</td>
<td>Campfield (2006)</td>
</tr>
<tr>
<td>The victimization of self (VS) scale with cyber-aggression questions</td>
<td>CV (4 items)</td>
<td>E, I</td>
<td>E-mail, Instant Messenger, Picture/video clip, Web page, Text message, Web space wall</td>
<td>Dempsey, Sulkowski, Nicols, and Storch (2009)</td>
</tr>
<tr>
<td>School Crime Supplement</td>
<td>CV (4 items)</td>
<td>–</td>
<td>Mobile phone, Instant Messenger, Internet, SMS</td>
<td>Dinkes, Kemp, and Baum (2009)</td>
</tr>
<tr>
<td>Mental health and Violence dimensions survey</td>
<td>CV (5 items)</td>
<td>E, I</td>
<td>Mobile phone, E-mail, Website</td>
<td>Goebert, Else, Matsu, Chung-Do, and Chang (2011)</td>
</tr>
<tr>
<td>Cyberbullying Survey</td>
<td>CB (3 items) CV (6 items) Teacher knowing about cyberbullying (3 items)</td>
<td>E, I, R</td>
<td>Mobile phone, E-mail, Instant Messenger, Chat, Blog</td>
<td>Harcey (2007)</td>
</tr>
<tr>
<td>Cyber Bullying Victimization Scale</td>
<td>CV (3 items)</td>
<td>E, I</td>
<td>Mobile phone, E-mail, Picture/Video clip, Internet</td>
<td>Hay and Meldrum (2010)</td>
</tr>
<tr>
<td>Cyberbullying Instrument</td>
<td>Instrument concepts (number of items)</td>
<td>Definition</td>
<td>Device/Media-specific items</td>
<td>Reference</td>
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<tr>
<td>--------------------------</td>
<td>---------------------------------------</td>
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<td>-----------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Cyberbullying and Online Aggression Survey instruments 2009 version</td>
<td>CB (9 items) CV (23 items)</td>
<td>E, I, R, Mobile phone, E-mail, Website, Instant Messenger, Chat, Picture/Video clip, Virtual words, Online games, Multiplayer online games, MySpace, Facebook, Twitter, YouTube</td>
<td>Hinduja and Patchin (2007, 2008, 2010); Patchin and Hinduja, (2006)</td>
<td></td>
</tr>
<tr>
<td>–</td>
<td>CB (12 items) CV (12 items) Knowing/being aware of cyberbullying experiences (12 items)</td>
<td>E, I, R Mobile phone, E-mail, Website, Instant Messenger, Chat, Internet, Other tools online</td>
<td>Huang and Chou (2010)</td>
<td></td>
</tr>
<tr>
<td>Cyberbullying student survey</td>
<td>CB, CV, and Cyber bystanders (14 items in total)</td>
<td>E, I None reported</td>
<td>Li (2010)</td>
<td></td>
</tr>
<tr>
<td>Cyberbullying Scale (CS)</td>
<td>CB (9 items) CV (9 items)</td>
<td>E, I, R, IP Mobile phone, E-mail, Website, Instant Messenger, Picture/Video clip, Chat, Text Message</td>
<td>Menesini, Nocentini, and Calussi (2011)</td>
<td></td>
</tr>
</tbody>
</table>
Table 8

<table>
<thead>
<tr>
<th>Cyberbullying Instrument</th>
<th>Instrument concepts (number of items)</th>
<th>Definition</th>
<th>Device/Media-specific items</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checking In On-Line: What’s Happening in Cyberspace?</td>
<td>CB (22 items) CV (40 items) Witness of cyberbullying (2 items)</td>
<td>E, I</td>
<td>Mobile phone, E-mail, Website, Instant Messenger, Picture/Video clip, Webcam, Social networking sites like MySpace, Nexopia, Piczo or Internet game</td>
<td>Mishna, Cook, Gadalla, Daciuk, and Solomon (2010)</td>
</tr>
<tr>
<td>European Cyberbullying Research Project (ECRP)</td>
<td>CB (12 items) CV (12 items)</td>
<td>E, I, R, IP</td>
<td>Mobile phone, E-mail, Website, Instant Messenger, Chat, Picture/Video clip, Internet, Blog, Text-message</td>
<td>Ortega, Elipe, Mora-Merchán, Calmaestra, and Vega (2009)</td>
</tr>
<tr>
<td>Peer aggression/Victimization Questionnaire</td>
<td>Cyber-aggression (3 items) CB (3 items)</td>
<td>–</td>
<td>Mobile phone, E-mail, Chat, Text message, Forums, Internet</td>
<td>Pornari and Wood (2010)</td>
</tr>
<tr>
<td>Text and email bullying</td>
<td>CV (2 items)</td>
<td>E</td>
<td>E-mail, Text-message</td>
<td>Rivers and Noret (2009)</td>
</tr>
<tr>
<td>The Berlin Cyberbullying - Cybervictimisation Questionnaire (BCyQ)</td>
<td>CB (21 items) CV (28 items)</td>
<td>E, I, R, IP</td>
<td>Mobile phone, E-mail, Website, Instant Messenger, Picture/Video clip, Internet, Text message, Forums, Social networking sites, Online games</td>
<td>Schultze-Krumbholz and Scheithauer (2009a,b)</td>
</tr>
<tr>
<td>Cyberbullying Instrument</td>
<td>Instrument concepts (number of items)</td>
<td>Definition</td>
<td>Device/Media-specific items</td>
<td>Reference</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------</td>
<td>------------</td>
<td>----------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Cyberbullying Questionnaire</td>
<td>CB (8 items) CV (23 items) Others (9 items)</td>
<td>E, I, R, IP</td>
<td>E-mail, Mobile phone, Picture/Video clip, Text message</td>
<td>Slonje and Smith (2008)</td>
</tr>
<tr>
<td>Cyberbullying Questionnaire</td>
<td>Instrument 2006: CB (3 items) CV (6 items) Others (13 items)</td>
<td>2006: E, I, R, IP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Student Survey of Bullying Behavior -Revised 2 (SSBB-R2)</td>
<td>CB (4 items) CV (4 items)</td>
<td>E, I, R</td>
<td>E-mail, Instant Messenger, Chat, SMS</td>
<td>Varjas, Heinrich, and Meyers (2009)</td>
</tr>
<tr>
<td>Cyberbullying Survey for Middle School Students</td>
<td>CB (3 items) CV (7 items)</td>
<td>E</td>
<td>Mobile phone, E-mail, Chat, Picture/Video clip, Virtual games, MySpace, Facebook</td>
<td>Wright, Burnham, Inman, and Ogorchock (2009)</td>
</tr>
</tbody>
</table>
Table 9  
*Instrument concepts<sup>c</sup> (number of items), elements in the definition of cyberbullying in related instruments<sup>d</sup> and types of device/media assessed*

<table>
<thead>
<tr>
<th>Cyberbullying Instrument</th>
<th>Instrument concepts (number of items)</th>
<th>Definition</th>
<th>Device/Media-specific items</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cyber-harassment victimization (3 items)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emotional/behavioral impact of being cyber-harassed (10 items)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online (survey) Questionnaire</td>
<td>Questions to victims of grieving (14 items)</td>
<td>E, I, R, IP</td>
<td>First life, second life</td>
<td>Coyne, Chesney, Logan, and Madden (2009)</td>
</tr>
<tr>
<td></td>
<td>Online harassment (10 items)</td>
<td>E, I, R</td>
<td>E-mail, Instant Messenger,</td>
<td>Finn (2004)</td>
</tr>
</tbody>
</table>

*Note.* A dash (–) is used in the table to indicate when no data were reported in the publications.

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<sup>c</sup>The following letters represent concepts for cyberbullying instrument: CB = perpetrator of Cyberbullying; CV = Cybervictimization.
<sup>d</sup>These elements have been generated from the cyberbullying literature (Tokunaga, 2010). Following letters represent elements in the definitions of cyberbullying (as specified by the developers): Electronic device/media = E; Intentionality = I; Repetition = R; Imbalance of Power = IP; Anonymity = A; Public/Private = P.
Table 9  
*Instrument concepts (number of items), elements in the definition of cyberbullying in related instruments and types of device/media assessed*

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<thead>
<tr>
<th>Cyberbullying Instrument</th>
<th>Instrument concepts (number of items)</th>
<th>Definition</th>
<th>Device/Media-specific items</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Major chat victimization (4 items)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internet bullying behavior (6 items)</td>
<td>E, I, R</td>
<td>Instant Messenger, MySpace, Facebook, Social networking sites</td>
<td>Kite, Gable, and Filippelli (2010)</td>
</tr>
<tr>
<td></td>
<td>Cybervictimization (4 items)</td>
<td></td>
<td></td>
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<tr>
<td>The survey of Internet Risk and Behavior</td>
<td>Internet harassment (5 items)</td>
<td>E, I</td>
<td>Internet</td>
<td>Mitchell, Becker-Blease, and Finkelhor (2005)</td>
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<td></td>
<td>Internet victim (5 items)</td>
<td></td>
<td></td>
<td>Mitchell, Finkelhor, and Becker-Blease (2007)</td>
</tr>
<tr>
<td>Survey of Internet Mental Health Issues (SIMHI)</td>
<td>Harasser (2 items)</td>
<td>E, I</td>
<td>Internet</td>
<td>Mitchell, Ybarra and Finkelhor (2007)</td>
</tr>
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<td></td>
<td>Target (2 items)</td>
<td></td>
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<td>Ybarra (2004)</td>
</tr>
<tr>
<td>Internet harassment/Youth Internet Safety Survey YISS 1</td>
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<td>Ybarra and Mitchell (2004a)</td>
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<td></td>
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<td></td>
<td></td>
<td>Ybarra and Mitchell (2004b)</td>
</tr>
<tr>
<td>Cyberbullying Instrument</td>
<td>Instrument concepts (number of items)</td>
<td>Definition</td>
<td>Device/Media-specific items</td>
<td>Reference</td>
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</tbody>
</table>
| Lodz Electronic Aggression Prevalence Questionnaire (LEAPQ) | Perpetrator of electronic aggression (20 items)  
Victim of electronic aggression (20 items)  
Cyberbullying (1 item)  
Cybervictimization (1 item) | E, I, R, IP | Mobile phone, E-mail, Website, Instant Messenger, Chat, Picture/Video Clip, Internet, Online Games, Computer Virus, Social networking sites | Pyżalski (2009)                  |
| Measure of text message victimization          | Text message victimization (16 items) | E, I       | Mobile phone                                                                                     | Raskauskas (2010)                |
|                                               |                                      |            |                                                                                                 | Raskauskas and Prochnow (2007)   |
| The Internet Experiences Questionnaire         | Electronic bullying (2 items)  
Electronic victimization (14 items) | E, I, R    | Mobile phone, Website, Chat, Picture/Video clip, Internet, Forums, Text messages                 | Raskauskas and Stoltz (2007)     |
<table>
<thead>
<tr>
<th>Cyberbullying Instrument</th>
<th>Instrument concepts (number of items)</th>
<th>Definition</th>
<th>Device/Media-specific items</th>
<th>Reference</th>
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</thead>
<tbody>
<tr>
<td>American Life Survey's Online Teen Survey</td>
<td>Victims of online harassment (2 items) Victims of cyberbullying (4 items)</td>
<td>E, I</td>
<td>E-mail, Internet, Picture/Video clip, Instant Messenger, Text Message</td>
<td>Sengupta and Chaudhuri (2011)</td>
</tr>
<tr>
<td>The Online Victimization Scale-21 items</td>
<td>General online victimization (8 items)</td>
<td>E, I, R</td>
<td>Internet</td>
<td>Tynes, Rose, and Williams (2010)</td>
</tr>
</tbody>
</table>
Table 10

Cyberbullying instruments: characteristics and quality criteria

<table>
<thead>
<tr>
<th>Cyberbullying Instrument</th>
<th>N</th>
<th>Age/Grade</th>
<th>Subscales(^e) and how they are derived</th>
<th>Reliability Internal consistency</th>
<th>Convergent Validity(^f)</th>
<th>Reference/Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyberbullying and Cyber-victimization Questionnaire</td>
<td>Survey: 396</td>
<td>12-18</td>
<td>CB, CV EFA and CFA</td>
<td>CB α = .83</td>
<td>Correlation coefficient between cyberbullying questionnaire and affective empathy was -.10, and cognitive empathy -.10.</td>
<td>Ang and Goh (2011)/Singapore</td>
</tr>
<tr>
<td>Questionnaire of Cyber-bullying (QoCB)</td>
<td>Survey: 269</td>
<td>12-19</td>
<td>Exposure to cyberbullying Engagement in cyberbullying coping strategies</td>
<td>–</td>
<td>–</td>
<td>Aricak et al. (2008)/Turkey</td>
</tr>
</tbody>
</table>

*Note. A dash (–) is used in the table to indicate when no data were reported in the publications.

All publications that are referred to as published 2011 were included because they were also advanced published online before October 2010.

\(^e\)The following letters represent names of subscales of cyberbullying instrument: CB = perpetrator of Cyberbullying; CV = Cybervictimization, and the type of factor analysis used to construct them: EFA = Exploratory factor analysis; CFA = Confirmatory factor analysis, or if the subscales are theoretically derived = TD.

\(^f\)There is a divergence as to which constructs the instruments have been validated against, in this systematic review constructs that are commonly used for validity testing in research of bullying are reported.

\(\ast p < .05. \ast\ast p < .01. \ast\ast\ast p < .001.\)
Table 10
Cyberbullying instruments: characteristics and quality criteria

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<th>Convergent Validity</th>
<th>Reference/Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyberbullying questionnaire</td>
<td>695</td>
<td>18-22</td>
<td>–</td>
<td>–</td>
<td>There are differences between non-cyberbully-victims, pure cybervictims, pure cyberbullies, and cyberbully-victims in term of their self-reported psychiatric symptoms*** [somatization, obsessive-compulsive, depressive, anxiety, phobic anxiety, paranoid ideation, psychotic and hostility symptoms].</td>
<td>Aricak (2009)/Turkey</td>
</tr>
<tr>
<td>–</td>
<td>Survey: 947</td>
<td>9-18</td>
<td>–</td>
<td>–</td>
<td>Face to face bullies would also be cyberbullies compared to noninvolved***. Additionally, Cyberbullying groups and cybervictimization groups had more internalizing symptoms $\eta^2 = .05^{<em><strong>}$; externalizing symptoms $\eta^2 = .18^{</strong></em>}$; and total problems $\eta^2 = .06$ than non-involved groups.</td>
<td>Brandtzaeg et al. (2009)/Norway</td>
</tr>
<tr>
<td>The Cyberbullying Questionnaire (CBQ)</td>
<td>Survey: 1431</td>
<td>12-17</td>
<td>CB</td>
<td>Total items $\alpha = .96$</td>
<td>13% of cyberbullying behavior was explained by following variables; proactive aggressive behavior, reactive aggressive behavior, direct aggressive behavior, indirect/relational aggressive behavior, and justification of violence***.</td>
<td>Calvete et al. (2010)/Spain</td>
</tr>
<tr>
<td>Cyber Bullying and Victimization Questionnaire</td>
<td>Survey: 219</td>
<td>11-14</td>
<td>CB, CV</td>
<td>Total items $\alpha = .90$</td>
<td></td>
<td>Campfield (2006)/USA</td>
</tr>
<tr>
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<td>Convergent Validity</td>
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<tr>
<td>The Cyber-victimization Scale of RPEQ</td>
<td>Survey: 1165</td>
<td>11-16</td>
<td>CV</td>
<td>CV α = .74</td>
<td>Correlation coefficient between the cybervictimization scale of RPEQ and overt victimization was .27**; relational victimization .31, p &lt; .01; social anxiety .20**; depression .26**.</td>
<td>Dempsey et al. (2009)/USA</td>
</tr>
<tr>
<td>School Crime Supplement</td>
<td>Telephone interview: 5618</td>
<td>12-18</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Dinkes et al. (2009)/USA</td>
</tr>
<tr>
<td>Revised Cyber Bullying Inventory-RCBI</td>
<td>Survey: 276</td>
<td>14-18</td>
<td>CB, CV</td>
<td>CB α = .86; CV α = .82</td>
<td>Correlation coefficient) between cyberbullying (male) and traditional bullying (male) .40**; between cybervictimization (male) and traditional victimization (male) .17**; between cyberbullying (female) and traditional bullying (female) .45**; between cybervictimization (female) and traditional victimization (female) .18*.</td>
<td>Topcu and Erdur-Baker, 2010; Topcu et al. (2008)/Turkey</td>
</tr>
<tr>
<td>Mental health and Violence dimensions survey</td>
<td>Survey: 677</td>
<td>9th-12th</td>
<td>–</td>
<td>–</td>
<td>Cyberbullying victimization increased the likelihood of substance use, with binge drinking and marijuana use approximately 2, 5 times, and increased the likelihood of depression by almost 2 times, and suicide attempts by 3, 2 times.</td>
<td>Goebert et al. (2011)/USA</td>
</tr>
<tr>
<td>Cyberbullying Instrument</td>
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<tr>
<td>Cyberbullying Survey</td>
<td>394</td>
<td>11-14</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Hay and Meldrum (2010)</td>
</tr>
<tr>
<td>Cyber Bullying Victimization Scale</td>
<td>426</td>
<td>10-21</td>
<td>CB, CV</td>
<td>Total items $\alpha = .80$</td>
<td>Correlation coefficient between cybervictimization and following scales: traditional victimization $.63^{<em><strong>}$; negative emotions $^{</strong></em>}$; self-harm $.41^{<em><strong>}$; and suicidal thoughts $.41^{</strong></em>}$.</td>
<td>Harcey (2007) /USA</td>
</tr>
<tr>
<td>Cyberbullying and Online Aggression Survey Instrument 2009 version</td>
<td>384</td>
<td>9-18</td>
<td>Cyberbullying victimization scale $\alpha = .93-.94$</td>
<td>Cyberbullying victimization scale $\alpha = .96-.97$</td>
<td>–</td>
<td>Patchin (2007, 2008, 2010)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cyberbullying offending scale $\alpha = .96-.97$</td>
<td></td>
<td></td>
<td>Hinduja and Patchin, (2006) /USA</td>
</tr>
<tr>
<td>Cyberbullying Instrument</td>
<td>N</td>
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<td>Reliability</td>
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<tr>
<td></td>
<td>Survey: 545</td>
<td>7th-9th</td>
<td>CB experiences CV experiences Knowing/being aware of cyberbullying experiences</td>
<td>Internal consistency: CB experiences $\alpha = .96$ cybervictimization experiences $\alpha = .90$ knowing/being aware of cyberbullying experiences $\alpha = .91$</td>
<td>–</td>
<td>Huang and Chou (2010)/Taiwan</td>
</tr>
<tr>
<td>Cyberbullying Student Survey</td>
<td>Survey: 269</td>
<td>7th</td>
<td>Students’ behaviors and beliefs related to CB as participants or bystanders. TD</td>
<td>–</td>
<td>–</td>
<td>Li (2010) Canada</td>
</tr>
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</table>
### Table 10
**Cyberbullying instruments: characteristics and quality criteria**

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<tr>
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<th>Convergent Validity</th>
<th>Reference/Country</th>
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</thead>
<tbody>
<tr>
<td>Cyberbullying Scale (CS)</td>
<td>Survey: 1092</td>
<td>11-18</td>
<td>CB, CV CFA and IRT</td>
<td>CB Males $\alpha = .86$ CB Females $\alpha = .67$ CV Males $\alpha = .87$ CV Females $\alpha = .72$</td>
<td>Correlation coefficient between cyberbullying and traditional bullying was $.71^{<em><strong>}$. Additionally, correlation coefficient between cybervictimization and traditional victimization was $.57^{</strong></em>}$.</td>
<td>Menesini, et al. (2011)/Italy</td>
</tr>
<tr>
<td>Checking In On-Line: What’s happening in Cyberspace?</td>
<td>Survey: 2186</td>
<td>6th-7th &amp; 10th-11th</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Mishna et al. (2010)/Canada</td>
</tr>
<tr>
<td>European Cyberbullying Research Project (ECRP)</td>
<td>Survey: 1671</td>
<td>12-17</td>
<td>Victims of mobile phone cyberbullying Victims of Internet cyberbullying</td>
<td>–</td>
<td>Severe victims via mobile phones feel more alone and stressed than occasional victims$^{**}$.</td>
<td>Ortega et al. (2009)/Spain</td>
</tr>
<tr>
<td>Cyberbullying Instrument</td>
<td>N</td>
<td>Age/Grade</td>
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<tr>
<td>Peer aggression/Victimization Questionnaire</td>
<td>Survey: 339</td>
<td>12-14</td>
<td>Cyber-aggression CV</td>
<td>Cyber-aggression $\alpha = .82$ CV $\alpha = .76$</td>
<td>Moral disengagement positively predicted c-aggression **. High levels of moral justification increased the odds of engaging in c-aggression ***. Additionally, high levels of t-aggression increased the chance of being a c-aggressor ***. High levels of t-victimization increased the chance of being a c-victim but decreased the chance of being a c-aggressor ***.</td>
<td>Pornari and Wood (2010)/UK</td>
</tr>
<tr>
<td>Text and email bullying</td>
<td>Survey: 5717</td>
<td>11-13</td>
<td>–</td>
<td>–</td>
<td>Being a girl and unpopular increased the likelihood of receiving nasty or threatening text messages or email more than once approximately 1.26 times*; being a boy and physically bullied increased the likelihood of receiving nasty or threatening text messages or email more than once approximately 3.69 times**.</td>
<td>Rivers and Noret (2010)/UK</td>
</tr>
<tr>
<td>Cyberbullying Survey</td>
<td>Intervention study: 276</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>Salvatore (2006)/USA</td>
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<tr>
<td>Cyberbullying Instrument</td>
<td>N</td>
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<td>Reliability Internal consistency</td>
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<tr>
<td>The Berlin Cyberbullying Cybervictimisation Questionnaire (BCyQ)</td>
<td>194</td>
<td>Adolescents</td>
<td>Traditional bullying in a new context Relational cyberbullying Technically sophisticated ways of cyberbullying</td>
<td>CFA</td>
<td>Traditional bullying in a new context (victim) $\alpha = .87$ Relational cyberbullying (bully) $\alpha = .81$ Relational cyberbullying (victim) $\alpha = .83$ Technically sophisticated ways of cyberbullying (bully) $\alpha = .93$ Technically sophisticated ways of cyberbullying (victim) $\alpha = .86$ Traditional bullying in a new context (perpetrator) $\alpha = .94$</td>
<td>Correlation coefficient) between cyberbullying scale and chat bully scale from Katzer et al. (2009) was .16*. Additionally, coefficient correlate between cybervictimization scale and chat victim scale from Katzer et al. (2009) was .48***.</td>
</tr>
<tr>
<td>Cyberbullying Questionnaire</td>
<td>360</td>
<td>12-20</td>
<td>–</td>
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<td>–</td>
<td>Slonje and Smith (2008)/Sweden</td>
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<tr>
<td>Cyberbullying Instrument</td>
<td>N</td>
<td>Age/Grade</td>
<td>Subscales and how they are derived</td>
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<tr>
<td>Cyberbullying Questionnaire</td>
<td></td>
<td>11-16</td>
<td>–</td>
<td>–</td>
<td>2005</td>
<td>Smith et al. (2008)/UK</td>
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<tr>
<td></td>
<td>Survey: 2005; 92</td>
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<td></td>
<td>2006: Many cybervictims were traditional victims***; and many cyberbullies were traditional bullies***.</td>
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<tr>
<td></td>
<td>Survey: 2006; 533</td>
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<tr>
<td>The Student Survey of Bullying Behavior - Revised 2 (SSBB-R2)</td>
<td>Survey: 437</td>
<td>–</td>
<td>CV, CB</td>
<td>CFA</td>
<td>Correlations coefficient between cybervictimization scale and following scales: cyberbullying was .88***; physical bullying was .31***; verbal bullying was .32***; relational bullying was .36***; physical victimization was .31***; verbal victimization was .38***; and relational victimization was .35***.</td>
<td>Varjas et al. (2009)/USA</td>
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<td></td>
<td>Additionally, correlations coefficient between cyberbullying scale and following scales; cybervictimization was .88***; physical bullying was .41***; verbal bullying was .40***; relational bullying was .48***; physical victimization was .28**; verbal victimization was .39***; and relational victimization was .33**.</td>
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<td>Cyberbullying Instrument</td>
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<tr>
<td>Cyberbully poll Survey</td>
<td>229</td>
<td>12-14</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Walker (2009)/USA</td>
</tr>
<tr>
<td>Cyberbullying Survey for Middle School Students</td>
<td>Survey: 114</td>
<td>12-14</td>
<td>CV, CB</td>
<td>–</td>
<td>–</td>
<td>Wright et al. (2009)/USA</td>
</tr>
<tr>
<td></td>
<td>Focus-Group: 13</td>
<td></td>
<td>CV, Coping, Bystander, TD</td>
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</table>
### Table 11

**Related instruments: characteristics and quality criteria**

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<th>Cyberbullying Instrument</th>
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<th>Convergent Validity(^h)</th>
<th>Reference/Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyber-Harassment Student Survey</td>
<td>432</td>
<td>7(^{th})-9(^{th})</td>
<td>–</td>
<td>Emotional/behavioral impact of being cyber-harassed (\alpha =.88)</td>
<td>–</td>
<td>Beran and Li (2005)/Canada</td>
</tr>
<tr>
<td>Online (survey) Questionnaire</td>
<td>Online Survey: 86</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Coyne et al. (2009)/UK</td>
</tr>
<tr>
<td>None reported</td>
<td>Survey: 339</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Finn (2004)/USA</td>
</tr>
</tbody>
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*Note. A dash (–) is used in the table to indicate when no data were reported in the publications. All publications that are referred to as published 2011 were included because they were also advanced published online before October 2010.*

\(^g\)The following letters represent names of subscales of cyberbullying instrument: CB = perpetrator of Cyberbullying; CV = Cybervictimization, and the type of factor analysis used to construct them: EFA = Exploratory factor analysis; CFA = Confirmatory factor analysis, or if the subscales are theoretically derived = TD.

\(^h\)There is a divergence as to which constructs the instruments have been validated against, in this systematic review constructs that are commonly used for validity testing in research of bullying are reported.

* \(p < .05\). \,** \(p < .01\). \,**\,* \(p < .001\).
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Related instruments: characteristics and quality criteria

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<tr>
<td>Victimization in chat room and bullying in chat room</td>
<td>Survey: 1700 &amp; 11th</td>
<td>Minor chat victimization</td>
<td>Cyberbullying victim-scale ( \alpha = .86 )</td>
<td>CFA</td>
<td>Correlation coefficient between major victimization in chat room and following scales; minor victimization chat .63***; major school victimization .26**; minor school victimization .32**; self-concept -.15**; school truancy .12**; visit to extreme chatrooms .24**; socially manipulative chat behavior .28**; lies in chatrooms .30**; school bully .23**; and chat bully .29,<strong>. Additionally, correlation coefficient between chat bully and following scales: major victimization chat .29</strong>; minor victimization chat .47**; major school victimization .22,<strong>; minor school victimization .29</strong>; self-concept -.04; school truancy .28**; visit to extreme chatrooms .33**; socially manipulative chatrooms behavior .29**; lies in chatrooms 19**; school bully .55**.</td>
<td>Katzer et al. (2009)/Germany</td>
</tr>
<tr>
<td>The survey of Internet Risk and Behavior Survey of Internet Mental Health Issues (SIMHI)</td>
<td>Survey: 588</td>
<td>7th-8th</td>
<td>Bullying behavior ( \alpha = .72 )</td>
<td>–</td>
<td>–</td>
<td>Kite et al. (2010)/USA</td>
</tr>
<tr>
<td>Survey of Internet Mental Health Issues (SIMHI)</td>
<td>Survey: 512</td>
<td>10-17</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Mitchell et al. (2005) Mitchell et al. (2007)/USA</td>
</tr>
</tbody>
</table>
### Table 11

**Related instruments: characteristics and quality criteria**

<table>
<thead>
<tr>
<th>Cyberbullying Instrument</th>
<th>N</th>
<th>Age/Grade</th>
<th>Subscales and how they are derived</th>
<th>Reliability Internal consistency</th>
<th>Convergent Validity</th>
<th>Reference/Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet harassment/Youth Internet Safety Survey YISS 1</td>
<td>1501</td>
<td>10-17</td>
<td>Engaging in online aggression Targets of online aggression TD</td>
<td>–</td>
<td>Online harassment is related to depressive symptomatology**; delinquency*; and substance use**. (Mitchell et al., 2007)</td>
<td>Mitchell et al. (2007)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Youths who reported symptoms of major depression were more than three times as likely to also report an internet harassment experience compared to youths who reported mild/absent depressive symptoms. (Ybarra, 2004)</td>
<td>Ybarra (2004)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aggressor/targets of online harassment were almost six times as likely to report emotional distress compared to victim-only youth. (Ybarra and Mitchell, 2004a)</td>
<td>Ybarra and Mitchell (2004a)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Online harassment behavior is related to delinquency frequent substance use and target of traditional bullying***. (Ybarra and Mitchell, 2004b).</td>
<td>Ybarra and Mitchell (2004b) /USA</td>
</tr>
</tbody>
</table>

**Note:**
- **: p < 0.01
- *: p < 0.05
- ***: p < 0.001
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<tr>
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<th>Convergent Validity</th>
<th>Reference/Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyberbullying</td>
<td>Survey:</td>
<td>13-17</td>
<td>Mobile phone aggression, Mobile phone victimization, Principal components analysis, Normative beliefs about aggression, Mobile phone hostile response selection</td>
<td>Mobile phone aggression $\alpha = .93$, Mobile phone victimization $\alpha = .84$, Retaliatory normative beliefs $\alpha = .91$, General normative beliefs $\alpha = .84$</td>
<td>Correlation coefficient between mobile phone aggression and following scales: traditional bullying .59**, traditional victimization .18**, and prosocial behavior -.30**. Additionally correlation coefficient between mobile phone victimization and traditional bullying .20**, and traditional victimization .40**.</td>
<td>Nicol and Fleming (2010)/Australia</td>
</tr>
<tr>
<td>Cyber stalking</td>
<td>Survey:</td>
<td>18-65</td>
<td></td>
<td></td>
<td></td>
<td>Paulet (2010)/USA</td>
</tr>
<tr>
<td></td>
<td>302</td>
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<tr>
<td>Instrument</td>
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<tr>
<td>Lodz Electronic Aggression Prevalence Questionnaire</td>
<td>Survey: 719</td>
<td>12-14</td>
<td>Perpetrator of electronic aggression, Victim of electronic aggression</td>
<td>Perpetrator of electronic aggression $\alpha = .84-.89$, Victim of electronic aggression $\alpha = .79-.91$</td>
<td>–</td>
<td>Pyżalski (2009)/Poland</td>
</tr>
<tr>
<td>Measure of text message victimization</td>
<td>Survey: 1530</td>
<td>11-18</td>
<td>–</td>
<td>–</td>
<td>More text-bullying victims were traditional victims ***. Additionally, text-bullying victims reported more depressive symptoms than those not involved ***.</td>
<td>Raskauskas (2010)/USA</td>
</tr>
<tr>
<td>The Internet Experiences Questionnaire</td>
<td>Survey: 84</td>
<td>13-18</td>
<td>Electronic victim, Electronic bullies</td>
<td>–</td>
<td>Traditional bullies and victims would also be electronic bullies and electronic victims ***.</td>
<td>Raskauskas and Prochnow (2007)/New Zealand</td>
</tr>
<tr>
<td>American Life Survey’s Online Teen Survey</td>
<td>Survey: 935</td>
<td>12-17</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Sengupta and Chaudhuri (2011)/USA</td>
</tr>
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<th>Reference/Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Online Victimization Scale-21 items</td>
<td>Survey: 2007; 222</td>
<td>14-19</td>
<td>General online victimization CFA</td>
<td>General online victimization $\alpha = .84$ (2007). General online victimization $\alpha = .88$ (2009).</td>
<td>Correlation coefficient between the online victimization scale-21 items and following scales: children’s depression inventory .29*; profile of mood states-adolescents/anxiety .41*; the Rosenberg self-esteem scale -.29*; and the perceived stress scale .30*.</td>
<td>Tynes et al. (2010)/USA</td>
</tr>
<tr>
<td>Internet harassment/Youth Internet Safety Survey YISS 2</td>
<td>Telephone Survey: 1500</td>
<td>10-17</td>
<td>Engaging in online aggression Targets of online aggression TD</td>
<td>–</td>
<td>Aggressive behaviors***; rule breaking behavior***; and target of Internet harassment*** are more likely to occur among individuals who reported engaging in harassment behavior 6 or more times compared to those reported never engaging in the behavior). (Ybarra and Mitchell, 2007). Physical or sexual abuse**; and high parental conflict** were each associated with elevated odds of reporting online interpersonal victimization). (Ybarra et al., 2007). Following characteristics were each associated with elevated odds of being the target of Internet harassment among otherwise similar youth: Harassing others online***; interpersonal victimization*; and borderline/clinically significant social problems** (Ybarra et al., 2006).</td>
<td>Ybarra and Mitchell (2007) Ybarra et al.(2007) Ybarra et al.(2006)/USA</td>
</tr>
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<td>Cyberbullying Instrument</td>
<td>N</td>
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</tr>
<tr>
<td>Growing up with Media (GuwM): Youth-reported Internet harassment Survey</td>
<td>1588</td>
<td>10-15</td>
<td>Internet harassment perpetration Internet harassment victimization CFA</td>
<td>Internet harassment perpetration $\alpha = .82$ Internet harassment victimization $\alpha = .79$</td>
<td>Youth who are harassed online are more likely to being the target of relational bullying***. Additionally, externalizing behaviors such as alcohol use***; substance use***; and carrying a weapon to school in the last 30 days compared to all other youth*** are related to internet harassment.</td>
<td>Ybarra et al. (2007) Ybarra et al. (2007) Ybarra and Mitchell (2008) /USA</td>
</tr>
</tbody>
</table>
The following is a summary of the contents of the four Tables (8, 9, 10, 11).

**Conceptual and definitional issues.** Several instruments have a few items only and, as mentioned above, the items’ underlying constructs vary. The term cyberbullying is included in only 21 of the 44 instruments, and 24 of the 44 instruments include the term cybervictimization, which illustrates that there is variation in the terms used in the instruments. The majority of the definitions stress the fact that cyberbullying behavior occurs through electronic devices/media (42 of the 44). Furthermore, 40 of the 44 definitions contain the criterion that the perpetrator must have the intention to harm. The repeated nature of the behavior is substantially less prevalent in the definitions (25 of the 44). Surprisingly, only 13 of the 44 definitions contain the criterion of imbalance of power, which can be summarized as someone who is in some way more powerful targeting a person with less power. In summary, Study IV shows that the developers of the included instruments operationalize the term and definition for cyberbullying in different ways.

**Types of devices/media.** The types of devices/media assessed in the included instruments vary considerably; a total of 34 devices/media are assessed by/included in the instruments. The two most included devices/media are mobile phones (24 of the 44 instruments) and e-mail (21 of the 44).

**Sample characteristics.** Almost all participants in the studies included in Study IV were either in middle school or of adolescent age. Adult participants were only investigated in a single study, by Coney et al. (2009).

**Subscales.** Of the 44 instruments, 25 have subscales. What is described as subscales in the instruments varies considerably. A confirmatory or exploratory factor analysis has been conducted for as few as 12 of the 44 instruments. In the remaining 13 publications, the subscales are different areas of interest and different topics that are not identified empirically through factor analysis but rather theoretically based.

**Information source.** The most common information source, targeted by 41 of the 44 instruments, was the self-report of respondents. Additionally, two of the 44 studies contained data from both focus groups (one with semi-structured interviews and the other with structured interviews) and self-report questionnaires (Smith et al., 2008; Wright et al.,
2009). In three of the 44 studies, the data were collected from structured interviews over the telephone (Dinkes et al., 2009; Ybarra & Mitchell, 2004a, b; Ybarra et al., 2007c).

**Reliability.** Some internal reliability (internal consistency) was tested. We found reports of internal reliability (internal consistency) for 18 of the 44 instruments; no other forms of reliability are reported.

**Validity.** Reporting of validity testing appears to be limited. It is only convergent validity that has been tested in the included publications. We found that information concerning convergent validity data is reported in only 24 of the 44 instruments. As can be seen in Tables 10 and 11, the way convergent validity is calculated for the instruments varies between chi-square, ANOVA, Pearson correlation coefficient, and regression analysis. Furthermore, there is, divergence as to which constructs the instruments have been related to; ranging from affective empathy to psychiatric symptoms to offline bullying.
GENERAL DISCUSSION

This thesis treated cyberbullying and contained three parts. The first focused on the relationship between cyberbullying and appearance (Studies I and II). Study I examined whether there was any relationship between cyberbullying and body esteem among pupils in the 4th, 6th and 9th grades. Study II was a qualitative investigation of appearance-related cyberbullying among pupils in the 9th grade, with a focus on characteristics of the cybervictims and cyberbullies as well as the reasons for and the content and effects of the cyberbullying. This part of the thesis (Study I) also investigated how common cyberbullying is among pupils in the 4th, 6th and 9th grades, and whether there are any age and gender differences.

The second part of the thesis investigated the coping strategies pupils in the 4th and 6th grades suggested they would use if they were cyberbullied, and whether there are differences in these related to age and gender (Study III).

The third part provided a representative overview of the instruments designed to assess cyberbullying (Study IV).

The main findings from the three parts are discussed in the sections that follow, followed by a presentation of methodological limitations.

Prevalence of cyberbullying in Sweden

To begin with I will discuss the findings in Study I regarding the prevalence of cyberbullying among pupils in the 4th, 6th and 9th grades in Gothenburg, Sweden, and the age and gender differences that were found. In the following section a comparison will be made only with those seven Swedish studies that use school-based samples (see Table 1 for an overview of previous Swedish studies).

In Study I 10.4% of all participants (4th, 6th and 9th grades) reported being cyberbullied, which is in line with the findings of two previous Swedish studies (see Slonje & Smith, 2008, Slonje et al., 2012). More specifically, in Slonje & Smith’s study (2008) 10.3% of the participants reported being cyberbullied. Similarly, Slonje et al. (2012) showed that 10.6% of the participants had been victims of cyberbullying. It is worth noting that the question, cut-off, and reference period used in Study I were obtained from the study by Slonje and Smith (2008): “Have you been cyberbullied within the past months?” with the cut-off “at
least once”. Moreover, Study I was inspired by the definition from the study by Slonje and Smith (2008), which included all three of Olweus’s criteria: intentionality, repetition and imbalance of power. The study by Slonje et al. (2012) used the same method as Slonje and Smith (2008). In sum, the above-mentioned prevalence rate in Study I was consistent with the results of the studies by Slonje & Smith (2008) and Slonje et al. (2012). This might be explained by the use of similar methodology.

The rate of being cyberbullied (10.4%) in Study I was also fairly closely in concordance with Beckman et al. (2013), who found that 8.8% of the participants had been cyberbullied. As stated in the introduction, apart from this study, Beckman et al. (2012) conducted another study and found a much lower rate (1.9%). These studies used the same methodology, but found very different prevalence rates. It is somehow difficult to compare the findings in Study I with these studies’ findings (see Beckman et al., 2012, Beckman et al., 2013), since the criteria of imbalance of power and repetition were formulated so differently in them (see page 15 in the introduction).

Study I used a very different method than the other three studies (see Englund, 2011; Låftman et al., 2013; Swedish National Agency for School Education, 2011). All three found a much lower prevalence rate than Study I, with the rate of being cyberbullied varying between 1% and 5%. There might be several reasons for the discrepancy in findings between Study I and those by Englund (2011), Låftman et al., (2013) and the Swedish National Agency for School Education (2011). First, Study I used a different question than the others did. Second, two of the other studies used the cut-off “at least twice per month” (see Englund, 2011; Swedish National Agency for School Education, 2011). The study by Låftman et al. (2013) used the cut-off “yes/no”. Third, two of the other studies formulated the criteria in different ways than Study I did (see Englund, 2011; Swedish National Agency for School Education, 2011). The study by Låftman et al. (2013) contains no information about whether the participants provided a definition. All these reasons may contribute to explaining the differences in prevalence rates.

To move this area of research forward, it would be fruitful in the future to start a dialog among Swedish researchers about how to measure cyberbullying. Several questions need to be addressed. Is it enough to use a global question? What specific items should complement the global question? Which cut-off point should be used? In this dialog, it would also be valuable to focus on how to define cyberbullying. One general conclusion that can be drawn from all the Swedish studies (including Study I) is that none of them have adapted Olweus’s definition of offline bullying for cyberbullying. This is important to do, since
research shows that the criteria of repetition and imbalance of power also exist in cyberbullying, but seem to be different in cyberbullying compared to offline bullying (Menesini et al., 2012, Menesini et al., 2013; Slonje et al., 2012).

I suggest a tentative outline of how it may be possible to express imbalance of power and repetition in cyberbullying in another section of this thesis (see pages 103-104), in the discussion of the findings of Study IV.

Age and gender differences in Sweden

The findings of Study I showed that being cyberbullied was more common among pupils in the 4th grade compared to older pupils. There were no differences between the 6th and 9th grades. Findings further showed that girls in the 4th grade were more likely to report cybervictimization compared to boys in the 4th grade. There were no differences in the 6th and 9th grades. Now follows a general discussion of these findings.

Age differences

The findings of Study I show that being cyberbullied was more common among pupils in the 4th grade compared to older pupils (6th and 9th grades). Among previous Swedish studies on age differences, only one included the same age span as Study I. More specifically, Englund (2011) mentioned that participants 13 to 15 years old (4.7%) more often reported being targeted than younger participants (9 to 12 years old) (3%). However, it is not reported whether these grade differences were investigated through statistical analysis. One explanation for the different findings could be that the method used in the study was different from that in Study I. For example, Englund (2011) used a question in which only three types of cybervictimization were presented to the pupils, while Study I used a global question. This may have led to Englund (2011) not capturing all the younger pupils who had been cyberbullied.

In the following section I will focus on several possible explanations for the grade differences found in Study I.

First, Findahl (2012) has shown that young Swedish children (9- to 12-year-olds) use the internet daily. It should also be noted that some studies indicate that young people who frequently use the internet may be at higher risk of cybervictimization (Medierådet, 2010; Mishna et al., 2010). Since young children in Sweden use the internet very frequently, they are at risk of being exposed to different forms of cyberbullying.
Second, the same pattern as in Study I has been found in research on offline bullying, with studies showing that younger pupils are bullied more frequently than older pupils (Smith, Madsen, & Moody, 1999). However, some previous researchers have found that cyberbullying is most common among 12- to 15-year-olds (Tokunaga, 2010). Our findings could imply that researchers may have underestimated younger children’s use of electronic communication, and their capacity to use it viciously.

Third, another explanation might be that younger pupils include many different aggressive behaviors in the word cyberbullying, unlike older pupils, who can better distinguish between aggressive behaviors. Younger children often only distinguish whether or not the behavior is aggressive, while older children can distinguish between physical violence, indirect aggression, abuse and bullying (Smith et al., 1999).

Finally, previous research on bullying has shown that older children often bully younger children (Smith et al., 1999). Moreover, in schools with both younger and older pupils, the younger ones have more children who are older than they are, who can bully them. Actually, the sample in Study I consisted of schools with both younger and older pupils; this might indicate that there were several older cyberbullies in the younger pupils’ surroundings.

**Gender differences**

The finding in Study I that girls in the 4th grade were more likely to report cybervictimization compared to boys in the 4th grade is in concordance with the findings of two previous Swedish studies. Beckman et al. (2013) found that girls were significantly more likely than boys to be cybervictims. Additionally, Englund (2011) found that 9- to 12-year-old girls more often reported being cybervictims than did boys of that age. However, it was not reported whether these grade differences were investigated through statistical analysis. Some researchers (e.g. Hinduja & Patchin 2008; Kowalski et al., 2008; Smith et al., 2008) have hypothesized that since cyberbullying is by nature verbal and relational, girls would be more involved in this form of bullying than in offline bullying, and perhaps even more involved than boys. However, one should be careful with this interpretation, since Study I found no gender differences among older pupils, and since no consistent gender differences have been found in more systematic analyses of cyberbullying studies (Tokunaga, 2010). Additionally, Englund (2011) also found that 13- to 15-year-old boys more often reported being cybervictims than did girls. However, it was not reported whether these grade differences were investigated through statistical analysis. No gender differences were found in the other Swedish studies with school-based samples (Beckman et al., 2012; Slonje & Smith, 2008,
Slonje et al., 2012; Swedish National Agency for School Education, 2011). I will now turn to the discussion of the relationship between cyberbullying and appearance. Both Studies I and II indicate that appearance-related cyberbullying may be gendered; namely, that this type of cyberbullying is aimed especially at girls.

Cyberbullying and appearance

Studies I and II aim to extend our understanding of an almost unexplored area – the relationship between cyberbullying and appearance – using self-report questionnaires and focus groups. Study I addressed whether there is any relationship between cyberbullying and body esteem among pupils in the 4th, 6th and 9th grades. Study II aimed to explore pupils’ (9th grade) experiences of appearance-related cyberbullying, with a focus on characteristics of the cybervictims and cyberbullies as well as the reasons for and the content and effects of the appearance-related cyberbullying.

Cyberbullying and body esteem

The main finding of Study I was that those who were victims of cyberbullying in the 4th, 6th and 9th grades reported poorer body esteem than non-cybervictims. More specifically, cybervictims reported a poorer view of their general appearance and of their weight than non-cybervictims did. Previous studies of offline bullying have found that being the victim of offline bullying is associated with poorer body esteem (Lunde et al., 2007; Lunde et al., 2011). Thus, our results of bullying in the context of the cyber world are in line with the previous studies of offline bullying. Hence, besides the fact that cybervictimized children and adolescents might be deeply and profoundly affected by their experiences in many ways, the findings Study I indicate that there is also a risk that they suffer from poor body esteem. Having poor body esteem is in itself problematic but has also been found to have adverse consequences, for example eating disorder symptomatology (Shroff & Thompson, 2006). As such, parents, school personnel and anti-bullying teams need to pay attention to the likelihood that victims of cyberbullying might suffer from poor body esteem.

Because Study I was cross-sectional, it is unfortunately not possible to draw any conclusions regarding causal links between body esteem and cybervictimization. That is, does cybervictimization constitute a risk factor that may lead to poor body esteem? This causal link between bullying and poor body esteem has been confirmed for offline bullying (Lunde et al.,
2007), but not yet for cyberbullying. Or is it that pupils who have poor body esteem present themselves on the internet in a way that makes them easy targets of cybervictimization? It would be interesting to try to answer these questions in future studies, using a longitudinal design.

In Study I there were no significant differences between cybervictims and non-cybervictims on the attribution subscale. This is a somewhat surprising finding, given that this dimension of body esteem concerns the perceived view of others. However, one explanation for this could be that we only used a single-item question to study cybervictimization and did not assess different types of cyberbullying. Actually, previous research on offline bullying has found that different types of bullying can have various effects on the different domains of body esteem (Lunde et al., 2007). This may indicate that attribution is related to some types of cyberbullying but not to others. For instance, attribution might be more related to types of cyberbullying that put the victim’s appearance in focus and where many peers are involved, for example when a great many people make hostile comments about a photo of the victim. In order to understand these relationships further, there is a need for studies looking into more specific types of cyberbullying in relation to specific dimensions of body esteem.

Another explanation for this finding could be related to specific items on the Body Esteem Scale for Adolescents and Adults (Mendelson et al., 2001). In particular, two of the questions on the attribution subscale might be difficult for younger participants to answer validly, since these aspects might not seem relevant to them: “I think my appearance would help me get a job” and “My looks help me to get dates.” These items might have affected the results for the attribution subscale, and thus also the relationship between cybervictimization and attribution.

**Gender differences: Cyberbullying and body esteem**

In Study I, we found that girls who were victims of cyberbullying reported a poorer view of their general appearance compared to boys who were victims of cyberbullying. One other study has presented similar results in an offline context: being the victim of bullying seems to have a more profound effect on girls’ body esteem than on boys’ (Lunde et al., 2006). One explanation for why girls who were victims of cyberbullying experienced a poorer view of their general appearance than boys might be as follows. Cyberbullied children and adolescents often suffer from poor self-esteem (Tokunaga, 2010). It has further been demonstrated that girls’ body esteem is closely connected to their self-esteem (Harter, 1999). It has also been suggested that there is greater emphasis placed on physical appearance for
girls (Grogan, 2007; Webb & Zimmer-Gembeck, 2013). Accordingly, cyberbullying might have an impact on girls’ self-esteem in general, and their own perception of their appearance in particular. However, since no measure of self-esteem was included in Study I, no empirical evidence can be provided in support of this suggestion.

**Appearance-related cyberbullying**

The findings of Study I and II revealed, in line with previous research, that cyberbullying is often directed at appearance (see Cassidy et al., 2009; Mishna et al., 2010). However, Study II supplements existing literature by suggesting that the content of cyberbullying can be divided into cyberbullying aimed at one’s style and cyberbullying directed at the body. Cyberbullying aimed at style often targets, for instance, one’s hairstyle or clothing, while cyberbullying directed at the body is often aimed at specific parts of the body, or at weight or muscularity. The content of the cyberbullying aimed at style and that directed at the body differed for boys and girls. I will now turn to these findings in more detail.

*Cyberbullying aimed at one’s style*

When it comes to cyberbullying aimed at one’s style, the pupils perceived that they can receive comments with sexual content; but the type of sexual content differed for girls and boys. The boys experienced that they can receive comments for looking or seeming “gay”, and perceived that looking or seeming “gay” was perceived to be negative and something to be avoided. Theories about masculinity contribute to explaining these findings, as men receive a number of messages associated with traditional masculinity from society (Mahalik, 1999). To some extent, men face the message that they should avoid behaviors regarded as feminine (e.g., engaging in appearance practices). Men may also be brought up with the notion that sexuality should be heterosexual, and that homosexuals should be disdained. Hence, it seems that the boys in Study II endorse some of the ideas associated with traditional muscularity. Among the girls it was described as common to be called a “whore” or “slut.” In sum, Study II indicates that boys are targeted by homophobic comments on social networking sites whereas girls are targeted in regard to getting a negative sexual reputation. It is troublesome that boys and girls are targeted by comments with content focusing on aspects related to sexuality, since romantic relationships and sexual identity are central developmental issues in adolescence (Craig, Pepler, Connolly, & Henderson, 2001).
Cyberbullying directed at one’s body

When it comes to cyberbullying directed at the body, the pupils perceived that girls receive more comments about their bodies than boys do. Furthermore, the girls talked more in their focus groups about receiving negative comments about being fat, while some of the boys experienced being cyberbullied for not being muscular enough. Appearance-related cyberbullying about the body thus seems to be closely related to gender-stereotypical body ideals in today’s Western society. Namely, boys are socialized to emulate the lean and muscular ideal from a very young age (Ricciardelli, McCabe, Mussap, & Hoff, 2009), and girls are encouraged to develop a body that is thin but shapely (Grogan, 2007). Social learning theory contributes to explaining these findings, as peers can exert an influence by commenting on appearance. For example, negative appearance-related comments pupils receive from peers often communicate how their appearance differs from current body ideals. Hence, pupils can be influenced to try to achieve an ideal body size and shape to gain the approval of the peer group (Webb & Zimmer-Gembeck, 2013). For example, girls may engage in dieting practices to keep their bodies thin and shapely, while boys may engage in body-building activities to achieve a muscular V-shape with a well-developed upper body (Calogero & Thompson, 2010). Given that peers have a major impact in shaping pupils’ thoughts about their bodies in adolescence, it is troublesome that Study II indicates that cyberbullies target cybervictims with comments that express these types of gender-stereotypical body ideals.

Girls’ attention-seeking on social networking sites and appearance-related cyberbullying

Girls explained that they believe the purpose of social networking sites such as Facebook and Instagram is to expose oneself to get attention, but that in doing so, one risks receiving negative attention and being cyberbullied. The girls talked a great deal about body ideals (being very skinny and having large breasts, a shapely rear end and perfect hair) and how they are trying to live up to the thin but shapely female body ideal on social networking sites, by carefully choosing their best photos to upload. These results are in line with the findings by both Manago et al. (2008) and Forsman (2014) that young people view their profiles on social networking sites as an opportunity to promote social impressions they perceive as desirable. Further, social identity theory asserts that if there is an appearance culture that values, reinforces and models ideals of beauty, this could lead to adolescent girls becoming preoccupied with current beauty ideals (Webb & Zimmer-Gembeck, 2013). However, it
should be noted that adolescent girls focus on appearance not due to superficiality but, rather, as a strategy to gain and maintain the acceptance of peers (Jones, 2012). Many adolescent girls believe that being thin is important because they perceive it to impact their acceptance by peers (Webb & Zimmer-Gembeck, 2013). They also believe thinness is synonymous with attractiveness, and would lead to more attention from boys. It is of great concern that those who internalize the norms and expectations regarding appearance (e.g., the thin but shapely female body ideal), and also compare their appearance with others’, are at a greater risk of developing poor body esteem (Jones, 2012; Knauss, Paxton, & Alsaker, 2007).

Appearance-related cyberbullying as a weapon against girls

Appearance-related cyberbullying was perceived to be a potent strategy for attempting to hurt girls. This is exemplified by the following statement by a boy: “You tell them they’re ugly, that they’re fat, and then they don’t have any confidence and think bad about themselves.” Why is appearance-related cyberbullying such an effective weapon against girls? Objectification theory contributes an explanation: women and girls in the Western world live their lives knowing that their bodies are under constant scrutiny (Fredrickson & Robertson, 1997). This framework describes how girls, from an early age, are encouraged to focus on their appearance, for instance how they dress or how their hair is styled. According to this theory, the scrutiny by others may cause women to take an observer’s perspective on their bodies, as a consequence objectifying themselves. Thus, for women and girls, there is always a perceived potential risk of being looked at and evaluated by others, and they learn to conduct a surveillance of themselves. Girls in the focus groups described greater self-surveillance—the constant preoccupation with how one looks—than the boys, and this made them more prone to being hurt by negative comments about their appearance and bodies. Self-surveillance has been found to be associated with several possible negative consequences, such as poor body esteem, depression, disordered eating attitudes, and poorer subjective well-being (Choma, Shove, Busseri, Sadava, & Hosker, 2009).
Reasons for appearance-related cyberbullying

The pupils in Study II reported a range of reasons for why cyberbullying is directed at appearance. First, they expressed that cyberbullies believe they will attain higher status by engaging in appearance-related cyberbullying. Second, they expressed the idea that cyberbullies feel bad about themselves and therefore engage in appearance-related cyberbullying. Third, they also believed that those who differ in their appearance provoke others to cyberbully them. I will now turn to these findings in more detail.

**Attain higher status**

According to the pupils in Study II, appearance-related cyberbullying is a way to attain higher status. Previous studies of offline bullying have shown that is common that children and adolescents believe bullies engage in bullying to attain higher status (Erling & Hwang, 2004; Frisén et al., 2007; Frisén et al., 2008; Hamarus & Kaikkonen, 2008; Horowitz et al., 2004; Terasahjo & Salmivalli 2003; Thomson & Gunter, 2008; Thornberg, 2010, 2013, Thornberg & Knutsen, 2011, Thornberg, Rosenqvist, Johansson, 2012; Varjas et al., 2008). Asking 10- to 13-year-olds why some children and adolescents are bullied, Thornberg (2010) found that 71% of the participants believed that bullying occurs because the bullies want to increase their status, get more power, and/or make more friends. The finding in Study II that appearance-related cyberbullying is a way to attain higher status, as well findings reported in some previous studies in an offline context, might be explained through the social dominance theory (Thornberg, 2010). This theoretical perspective suggests that by successfully combining prosocial and aggressive behaviors bullies can achieve and maintain a high-status position in their peer group.

**Cyberbullies do not feel good about themselves**

Many pupils in Study II believed that cyberbullies write mean things about someone’s appearance because they do not feel good about themselves and want to feel better by making someone else feel bad. This finding can be related to some work by Thornberg (2010, 2013) in an offline setting. In his interview study, he found that 36% of the children and adolescents explained bulling as the work of a disturbed bully, meaning that the bully is regarded as a child who feels bad (Thornberg, 2010). Later, Thornberg (2013) did a survey study and found that pupils believed bullies engage in bullying because they have their own problems. He also found that this type of reasoning among the pupils had led to their more often having been
involved as defenders of victims in bullying situations. It should also be noted that, according to Thornberg (2010, 2013), this perception among pupils could result in a vicious circle. There could arise a social process whereby the bully is targeted with negative labels, with negative consequences for the bully such as problems with identity formation and a consolidation of the negative bullying behaviors.

**Different appearance as a reason for appearance-related cyberbullying**

The pupils in Study II talked about pupils who differ in their appearance being targeted more frequently with appearance-related cyberbullying. For example, one girl expressed it as follows: “Thus, it’s often the ones who look different.” Another girl stated: “If a person is larger or heavier or something.” The finding in Study II is in line with those in previous studies in an offline context (for a review, see Thornberg 2011b), showing that pupils believed that those who differ in their appearance provoke others to cyberbully them. Moreover, Teräsahjo and Salmivalli (2003) presented the term “the odd student repertoire”, referring to the explanation among pupils that bullying occurs because victims have characteristics that others in some way find disturbing. Thornberg (2011b) suggests that this phenomenon can be understood in the light of ethnographic studies that have identified that it is common for pupils to create a peer culture of intolerance towards “deviance” or “difference” in any aspect, which can develop into and justify bullying. According to labelling theory and stigma theory, when a social group labels a person as “different” or “deviant”, this leads to the assumption that the person deviates from a norm established by the peer group. Further, difference is in the eye of the beholder; that is, a characteristic becomes “deviant” when a high-status member defines that characteristic as deviant. Given the above outline, it is of great concern that Thornberg (2013) found in a recent study that the more the pupils believed that bullying occurs because victims are different, have deviant clothes or appearance, or behave odd or differently, the more they have been involved in bullying situations as bullies or reinforcers.

However, both boys and girls in the focus groups said that there does not have to be something different about the cybervictimized girls’ appearance. Instead, appearance-related cyberbullying was perceived to be a potent strategy when attempting to hurt girls.
Girls and boys react differently to appearance-related cyberbullying

In Study II, the girls perceived that victims of appearance-related cyberbullying may become less self-confident and get poorer self-esteem, become depressed or even consider committing suicide. The girls also described the effects as sometimes irreversible. In the focus groups with boys, especially one group in particular, in their discussions they repeatedly returned to the assertion that they would react towards someone who is cyberbullying others by using violence. However, some boys said they would not take offense at all. Thus, Study II indicates that girls and boys react differently to appearance-related bullying. The different reactions among girls and boys in Study II seem to be in accordance with previous research showing that girls report internalizing symptoms (including depression, anxiety, withdrawal and eating disorders) more frequently than boys, whereas boys report externalizing symptoms (including aggression and oppositional disorders) more frequently than girls (Leadbeter, Kuperminc, Blatt, & Hertzog, 1999).

Overall, the boys and girls in Study II seem to be influenced to some extent by gender stereotypes, in that they seem to conform to some of the “masculine” and “feminine” norms present in Western society (Mahalik et al., 2003; Mahalik et al., 2005). More specifically, the girls in Study II seem to have conformed to some degree to feminine norms by engaging in some of the behaviors associated with the stereotypical female gender role, such as pursuing a thin body ideal and investing in their appearance (Mahalik et al., 2005). Girls also expressed negative feelings such as depression and shame related to non-conformity to the body ideals, and talked about being preoccupied with thoughts emphasizing the importance of living up to the body ideals. The boys, especially in one focus group in particular, expressed views in line with some masculine norms, especially some of the norms associated with the stereotypical male gender role, such as using violence and that homosexuals should be disdained (Mahalik et al., 2003). Dionne and Davis (2012) describe that there is a power dimension associated with these stereotypical gender roles. According to gender socialization theory, there is an unequal distribution of power in our society, whereby men as a group have a more dominant and powerful position and women as a group have an inferior position (Calogero & Thompson, 2010). It has been suggested that this might lead to women focusing on their appearance as a learned strategy to achieve more social power (Dionne & Davis, 2012). Study II also indicates that both boys and girls might be influenced by this traditional and structural imbalance of power between the genders. Whereas the girls focused on their appearance, boys
expressed that they might use violence. Appearance-related cyberbullying of girls might be a way of manifesting this power imbalance.

**Suggested coping strategies**

The aim of Study III was to investigate the coping strategies Swedish pupils they would use if they were cyberbullied, with a special focus on whether there are differences in these suggestions that are related to age and gender.

**Tell someone**

The findings in Study III showed that the most commonly suggested coping strategy among pupils in the 4th and 6th grades was to tell someone. Most of the pupils (70.5%) specified whom they would tell, and some said they would tell several people, with telling both parents and a teacher as a common example. Some of the pupils also elaborated on what would happen when they had told the person; for example, “I would tell my mom and dad so they could contact the person or their parents.”

That so many of the pupils suggested that they would tell someone is in line with the results of previous studies (Huang & Chou; 2010; Patchin & Hinduja, 2006; Smith et al., 2008). However, the findings of Study III differ from those of previous studies regarding the proportion of pupils seeking support from adults as opposed to friends. To be more precise, in Study III a majority (59.7%) of the pupils suggested they would tell a parent or a teacher, and a minority (2.6%) suggested telling a friend, while the aforementioned studies found the opposite pattern. Social representations theory offers an explanation for this difference in pattern; namely, the content of social representations in peer cultures might vary due to differences in contextual variables, such as culture (Augoustinos et al., 2012). Certain features in the Swedish sociocultural context can be assumed to have an impact on whom Swedish pupils suggest they would turn to if they were cyberbullied.

First, extensive work is being done against bullying in Swedish schools, and the implementation of anti-bullying programs focuses on educating parents and school staff (Swedish National Agency for School Education, 2011). Pupils are encouraged to tell parents and school staff if they witness others being bullied or if they are bullied themselves.

Second, according to Thornberg (2007), it is built in to the Swedish school system, as an institution, that it is the teachers/adults who are responsible for intervening in bullying.
situations. Pupils are instructed to tell teachers/adults and not to assist friends and peers in difficult situations. This may lead to the pupils losing their sense of responsibility and the teachers framing them to believe that adults have more competence to help the victim in these situations. This may be troublesome, because it is also important to encourage pupils to counteract and assist other pupils who are targeted in cyberbullying.

Third, the interaction between adolescents and adults is less formal in Sweden compared to many other Western societies (“Sweden.se”); for example, Swedish pupils call their teachers by their first name. Such aspects of Swedish society likely exert influence on how comfortable Swedish pupils are in turning to adults about their worries.

**Parents.** In Study III 39.5% of the pupils expressed that they would tell a parent, or both parents; for example, “I would tell my mom and dad.” This is a surprisingly high percentage, considering that other studies have found this rate to be 9–10% (Aricak et al., 2008; Bauman, 2009). Moreover, many of these pupils expressed the belief that their parents would then try to solve the problem. This was described by a pupil who said, “First I’d tell my parents. And then I’d leave the responsibility to my parents.” The findings of Study III could be interpreted as an indication that some pupils in Sweden rely on their parents for support when they face difficulties of this nature. It should be noted, however, that a majority of the pupils did not suggest they would tell a parent. According to Friends (2013), a Swedish antibullying organization, about 42% of Swedish 12- to 16-year-olds wished their parents had more knowledge about how to support them if they were victimized online. Additionally, they wished their parents would talk more with them about how to behave in the digital world, and also believed that parents should be good role models. Swedish adolescents want their parents to be more involved regarding issues related to cyberbullying and cybersafety. In research for preventing cyberbullying, it has been emphasized that parents should be invited to meetings at school with the purpose of increasing their knowledge about cyberbullying and how they can prevent it (Cross, Monks, Campbell, Spears, & Slee, 2011b; Välimäki et al., 2012). These meetings are intended to encourage and support parents in communicating with their children about these issues. It is especially important that parents clarify that they will not deny their children phone or online access if they are targeted online, as children might otherwise be reluctant to report to their parents that they are being cyberbullied.

**Teachers.** Some of the pupils in Study III reported that they would tell a teacher (20.2%); expressions such as “I’d go to the teacher and said who it was” and “First, I’d talk to
someone who works with it,” were common among some of the pupils. Reaching out for teachers’ help is even rarer in most other international studies; the rate of this suggestion varies between 1% and 8.5% (Aricak et al., 2008; Huang & Chou, 2010; Smith et al., 2008). Our findings could indicate that some pupils believe there are teachers in Swedish schools who would address their disclosure of cyberbullying seriously and try to help them. When asking 18-year-old former Swedish victims of offline bullying what made the bullying stop, Frisén, Hasselblad, and Holmqvist (2012) found that the intervention by school staff was one of the most frequent answers. Since some Swedish pupils seem willing to seek help, school management needs to educate teachers and other staff in how to prevent cyberbullying situations. For example, according to Cross et al. (2011b), teachers need to maintain a positive climate in the classroom so that pupils will be comfortable reporting incidents of cyberbullying to them.

**Friends.** Surprisingly, only 2.6% of the pupils in Study III (almost all of them in the 6th grade) reported that they would tell a friend. This is a low percentage compared to previous studies, which have revealed rates of 15% (Aricak et al., 2008) and 74% (Cassidy et al., 2009), although these studies used different methodology, with multiple-choice questions or direct questions concerning whether the participant would tell a friend. As mentioned, it may be that some pupils in Study III feel that adults have more resources for helping with this kind of problem than their friends do. Our results point to the need for Swedish schools to help pupils develop skills they can use to assist friends in difficult situations. It should be noted that in an evaluation of the Friendly Schools Program in Australia, a whole-school evidence-based anti-bullying program, the following elements were associated with a decrease in both bullying and victimization: building prosocial skills, including peer discouragement of bullying; offering social support for pupils being bullied; and building empathy for pupils being bullied (Cross et al., 2011c).

**Ignore**

In Study III, 16.9% of the pupils reported that they would ignore the bullying. Expressions such as “Turn off the computer or leave” and “I’d probably stop visiting that site” were common among the pupils. This is quite a high percentage, considering that cyberbullying is a serious matter to be subjected to. However, this rate is lower than in several other studies, which have found rates of over 40% (Li, 2010; Smith et al., 2008). Several
explanations have been suggested for why doing nothing is such a common response. One might be that pupils lack strategies for coping with cyberbullying (Li, 2007b). Another might be that it is difficult to do anything if the offender is anonymous (Li, 2010). However, some pupils also do not believe cyberbullying is a serious issue and feel it should just be ignored (Li, 2010). This can be illustrated by some pupils in Study III, who stated that they simply would not care about the bullying: “Wouldn’t care—wait until he gets tired and can’t go on” and “I wouldn’t care!”

**Confront**

Confronting the bully was also a commonly suggested coping strategy by the pupils in Study III. In many cases it was unclear whether the confrontation would take place in person or online. However, some pupils were specific: “I would try to find out who it is and ask why he/she is doing it” and “...if he or she didn’t stop I’d hit him or her.” Nevertheless, overall, 25.5% of the pupils reported that they would confront the bully, a higher rate than in two other studies, which found rates of 3–16.4% (Aricak et al., 2008; Bauman, 2009). Still, it is troublesome that pupils suggested they would use confrontation, as one study by Price and Dalgleish (2010) found that a majority of cybervictims reported that confronting the bully was not helpful.

The two remaining suggested coping strategies mentioned by pupils in Study III, reporting and technical solutions, are quite equally uncommon. In Study III, 5.5% of the pupils said they would report the bullying to the police or to the website where the bullying occurred. As for technical solutions, 6.6% of the pupils reported that they had the necessary technical skills to deal with cyberbullying.

Finally, it should be emphasized that it is of great concern that 6.8% of the pupils in Study III did not know what to do if they were cyberbullied. Most other studies have not reported findings on how common it is for pupils to answer “Don’t know”, which, of course, is not in fact an actual coping strategy, which may be why it is excluded in some studies with multiple-choice questionnaires. Nonetheless, it is valuable to have knowledge of how common it is for pupils to feel uncertain about what to do. Thus, the findings of Study III indicate that some pupils lack knowledge about how they can protect themselves on the internet.
Differences in coping strategies between groups of pupils

**Age differences in coping strategies**

Study III demonstrated that pupils in the 4th grade were more likely than those in the 6th grade to talk to parents. Furthermore, the younger pupils in study III were less likely to talk to friends. One possible explanation for this could be that when entering adolescence, pupils seek independence from their parents and often turn to peers rather than adults for support (Aricak et al., 2008). These findings could be helpful in developing prevention strategies for all pupils and support for cybervictims, as they indicate that it is more effective to encourage younger pupils to talk to their parents, and to involve friends more for older pupils.

Findings of study III also showed that it was more common among pupils in the 4th grade to not know what to do if cyberbullied compared to those in the 6th grade. Additionally, pupils in the 4th grade were more likely than those in the 6th grade to suggest avoiding the bullying. These findings are troublesome, since feelings of helplessness can lead to a decrease in pupils’ self-confidence and to their becoming withdrawn from school and friends (Hoff & Mitchell, 2009). Some younger pupils obviously need more education about what they could do. However, Study III showed that most of the pupils in both grade groups studied had ideas about what to do.

There were no grade differences in suggestions for technical solutions. However, Study III involved a young sample, and it would be interesting to investigate whether this finding also applies to older pupils in Sweden. For example, in a systematic review of coping strategies against cyberbullying, Perren et al. (2012) reported that some researchers argue that older pupils have better understanding and knowledge regarding the internet. Hence, younger pupils may require more technical support than older pupils to stop cyberbullying.

**Gender differences in coping strategies**

Study III showed that girls were more likely than boys to suggest they would tell someone if they were cyberbullied, which was also found in another study (Li, 2006). We found that girls were more likely than boys to tell parents and teachers, as well as friends. Boys were more likely to suggest they would retaliate in an offline context if they were cyberbullied. One possible interpretation of this is that it is a representation of socialization into traditional gender roles. According to a cognitive theory of the development of gender role schema, both girls and boys receive a number of messages about masculine and feminine
behavior from social forces, such as school, peers and the media (Mahalik, 1999). Girls are expected to talk about their thoughts and feelings, whereas boys are socialized to use physical violence in difficult situations (Adams et al., 1995; Kowalski & Limber, 2007; Nansel et al., 2001). Given that Sweden is often classified as one of the world’s most gender-equal countries (Hausmann et al., 2013) and that school staff is obliged by law to promote gender equality (SFS 2010:800), many would be surprised at the gender differences we found. One explanation for this could be that even though Sweden has taken large steps toward more gender equality, traditional social expectations on girls and boys remain influential. This finding could be an expression of the problem with the weak connection between attitudes/values and actual behavior (Augoustinos, Walker, & Donaghue, 2012).

These gender differences are important to consider when developing plans and programs that endorse cyberbullying interventions. This result indicates that there is a group of unidentified victims among boys, since they might not report if bullied. Furthermore, since boys seem to be more prone to retaliate in person this could make it even harder for them to tell others about their victimization since they, by using this coping strategy, also may become bullies. Thus, this finding suggests that teachers need to adjust the preventative work according to gender, for example by encouraging boys to talk more about cyberbullying.

**Cyberbullying assessment instruments**

The previous sections have discussed the prevalence of cyberbullying in Sweden, the relationship between cyberbullying and appearance, and the coping strategies pupils suggest they would use if they were cyberbullied. This section focuses on Study IV, which aimed to offer a representative overview of the instruments designed to assess cyberbullying, and to provide information about their conceptual framework and existing data on their psychometric properties.

All instruments included in Study IV are categorized into two different groups, cyberbullying instruments and related instruments, in the presentation of the study details in tabular format (see Table 8, 9, 10, 11 for an overview of the instruments included in Study IV). In the next section I discuss our major findings for both groups jointly in the text.
Conceptual issues

Study IV shows that the terms used in the instruments vary, ranging from internet harassment behavior to electronic bullying behavior to cyberbullying. Even though many of the authors use terms other than cyberbullying, they claim that their instruments do in fact measure cyberbullying. One way to understand this view by the authors may be as follows.

The instrument included in Study IV has been developed in different languages and used in several different countries, such as Germany (Schultze-Krumholz and Scheithauer, 2009a; 2009b), Great Britain (Smith et al., 2008), the US (Ybarra, 2004), Italy (Menesini et al., 2011) and Spain (Ortega et al., 2009). However, all the publications included in Study IV are in English, with the instruments that were not developed and used in English-speaking countries having been translated into English. It should be noted that words used to denote bullying differ between languages, as well as within single languages (Smith et al., 2002). More specifically, it is common in Scandinavian and Germanic languages to use the terms bullying and mobbing interchangeably (Lösel & Bliesener, 1999; Olweus, 1999). English is also a member of this language family; however, there are different English-speaking cultures in, for instance, the US and Great Britain. In both Great Britain and the US it is common to use the term bullying (Hazler, 1996), but it is less widely used in the US, where the terms victimization and peer rejection are more often used (Asher & Coie, 1996). In the Romanic languages, general words for bullying are rare. For instance, in Italy and Spain various words are used for different types of bullying instead of one all-purpose word (Fonzi et al., 1999; Ortega, Rey Del, & Mora-Merchán, 2001). In France there is no direct translation of the word bullying (Smith et al., 2002); the French word “faits de violence” refers to several kinds of violence, and is related to violence that is legally punishable (Fabre-Cornali, Emin, & Pain, 1999). In an offline context, researchers have used culturally specific terms to label bullying behaviors.

In a cyber context, a study by Menesini et al. (2012) found that the terms used by pupils to denote cyberbullying vary between countries. More specifically, they used a bottom-up approach to conduct a cross-cultural investigation of what terms pupils use to denote cyberbullying. It was found that pupils in Germany used the term “cybermobbing”, whereas in Italy it is common to use the term “cyberbullismo”. For bullying via the internet or mobile phone a term frequently used in Spain is “acoso”, in France “cyberviolence”, and in Estonian “kiusamine”. Swedish pupils often used the term “mobbning” or “nätmobbning”.

In sum, many of the instruments in Study IV have been translated into English. Perhaps the researchers have chosen to use English terms for bullying that are as equivalent as
possible to those used in their own languages. The issue of comparability of terms is central for the accurate interpretation of national and cross-national findings (Smith et al., 2002). Advocating the need for researchers to use exactly the same term in different countries could lead to an underestimation of the specific features of the bullying process due to differences in countries’ cultures. But it is important to know how compatible the different terms and definitions are, and in what ways they differ (Smith et al., 2002).

**Definitional issues**

Much of the work on offline bullying has adopted the definition by Olweus (1999), who categorizes bullying as a subset of aggressive behavior defined by three criteria: intentionality, repetition and imbalance of power. Study IV shows that the development of instruments for measuring cyberbullying is hampered by the apparent lack of consensus regarding how to use Olweus’s (1999) three established criteria of offline bullying in the definition of cyberbullying. One explanation for the variation in how cyberbullying is defined in the instruments could be that similarities and differences between offline bullying and cyberbullying are not clear-cut and agreed upon (Kowalski et al., 2014; Slonje et al., 2013; Thomson et al., 2014). Research indicates that the criteria of repetition and imbalance of power look different in cyberbullying compared to offline bullying (Menesini et al., 2012, Menesini et al., 2013; Slonje et al., 2012). There is often a greater breadth of audience on the internet (publicity), and the identity of the perpetrator is often unclear to those exposed (anonymity) (Menesini et al., 2012, Menesini et al., 2013). Studies have shown that there is a relationship between publicity, repetition and imbalance of power (Menesini et al., 2012, Menesini et al., 2013). The aspect of anonymity increases the feeling of imbalance of power (Menesini et al., 2012, Menesini et al., 2013).

This points to the possibility that anonymity and publicity are essential prerequisites for creating imbalance of power and repetition in the cyber context. Based on this previous research, I suggest that we try to adapt and use Olweus’s definition of offline bullying for cyberbullying. A description of the relationship between publicity, repetition and imbalance of power, as well as between imbalance of power and anonymity, could be included in the definition of cyberbullying when presented to participants to clarify what is meant by the term.

For future research, I suggest that the relationship between repetition and publicity in cyberbullying be expressed as follows: “The repetitive act in cyberbullying can be conducted by an infinite number of others besides the original cyberbully.” The relationship between
repetition and publicity in cyberbullying could also be described more specifically for participants using examples based on the types of cyberbullying being investigated. For instance, for investigations of appearance-related cyberbullying, inspired by previous research (see Slonje et al., 2012, 2013) I suggest the following clarification: “An embarrassing photo/video clip can be uploaded to a webpage by the cyberbully, and each new visit to the webpage will be experienced as a repetition of the attack from the cybervictim’s perspective. Or a photo/video clip can be sent to one person, who in turn transmits it to many others, which is also to be regarded as repetition.”

In the research on offline bullying and cyberbullying, researchers have found that imbalance of power creates in victims feelings of powerlessness and the experience of not being able to defend oneself (Olweus, 1993; Riebel et al., 2009; Smith & Brain, 2000; Menesini et al., 2012, Menesini et al., 2013). This is often described in the definitions of both offline bullying and cyberbullying as follows: “The person cannot easily defend him- or herself” (Smith, 2012b). However, it may differ from the situation in offline bullying; for example, some assert that when the cyberbully is anonymous the victim is totally defenseless (Dooley et al., 2009; Slonje & Smith, 2008; Vandebosch & Cleemput, 2008; Menesini et al., 2012, Menesini et al., 2013). The relationship between anonymity, publicity, repetition and imbalance of power in cyberbullying could be expressed as follows: “Imbalance of power in cyberbullying can arise due to the bully’s possibility to be anonymous and the victim’s lack of control over who will have access to the photo/video clip”.

However, in a recent review of offline bullying and cyberbullying, Thomas et al. (2014) suggested that including a definition of cyberbullying prior to the questions is not the same as operationalizing the definitional criteria. They suggested that another way could be to use questions that capture the respondents’ understanding of intentionality, repetition, imbalance of power, publicity and anonymity.

Let us now turn to the discussion concerning the use of different types of devices/media in the instruments included in Study IV.

**Types of devices/media**

Different types of devices/media create different possibilities and arenas for cyberbullying. This can be illustrated with an example from the research field of appearance-related cyberbullying. Study II showed that adolescents targeted each other by uploading, sending or sharing compromising photos and videos on social networking sites with photo applications, such as Facebook and Instagram. They also received abusive comments about
their photos. Thus, through photo applications perpetrators have new opportunities to strike at victims’ appearance and body shape. None of the instruments in Study IV included Instagram, and few of them included Facebook. The types of devices/media assessed in the instruments included in Study IV vary considerably, with a total of 34 devices/media included in the instruments. One reason for this diversity may be that technology is constantly evolving, creating new arenas and making it difficult to choose which types of electronic devices/media to investigate. Clearly, it becomes important to stay updated about new arenas and types of devices/media when measuring cyberbullying experiences. This suggestion is supported by Kowalski et al. (2014) in their critical review of cyberbullying research. They suggest that the increase in social networking sites will likely lead to these arenas being important for cybervictimization and cyberperpetration in the not-too-distant future.

Reliability

For some of the instruments, only internal reliability (internal consistency) was tested. There are several approaches to estimating reliability, each generating a different coefficient (such as test-retest or parallel forms). Problematically, for more than half of the instruments we found no reported reliability statistics. Therefore, priority should be given to further tests of reliability. Another problem is the lack of longitudinal data, which among other things involves the consequence that no test-retest reliability is reported for any of the instruments. Only one study included in this systematic review contains longitudinal data; however, it did not report information concerning the reliability of the instruments used (Rivers & Noret, 2009).

Validity

The reporting of validity testing appears to be limited; only convergent validity was tested in some of the included publications. Convergent validity shows whether the instrument is related to other constructs assessed at the same measurement point (as subscales/different areas of interest/different topics of the instrument or by totally different instruments) and that are theorized to be related to cyberbullying based on theoretical assumptions (e.g., as bullying is an aggressive behavior it should show high correlations with aggression in general). We found that information concerning convergent validity data was reported in only 24 of the 44 instruments. As can be seen in Tables 10 and 11 (see pages 65-81), the way convergent validity was calculated for the instruments varies between chi-square, ANOVA, Pearson
correlation coefficient, and regression analysis. Furthermore, there is divergence as to which constructs the instruments have been related to; ranging from affective empathy to psychiatric symptoms to offline bullying. Future research on cyberbullying should emphasize the development of a valid assessment for cyberbullying instruments. Valid instruments improve the general quality of research by enabling researchers to measure the same phenomenon.

Methodological discussion

One methodological issue is that we only used a global question to measure the prevalence of cyberbullying in Study I. We did not try to measure the different types of electronic devices/media used to conduct the cyberbullying (e.g., SMS, photo/video clip, e-mail), and nor did we measure the different specific behaviors, such as written–verbal, visual, impersonation and exclusion. The reason we used this global question was that Slonje and Smith (2008) also used it, and we wanted to compare our findings on the global question with theirs as, at the time, theirs was the only study that had investigated the prevalence of cyberbullying in Sweden. However, according to Gradinger et al. (2010), the global question may underestimate the prevalence rates of cyberbullying. When measuring the prevalence of cyberbullying, they found that it is important to use different specific items (e.g., phone calls, SMS, photo/video clip) to cover other aspects of cyberbullying. This would probably produce higher prevalence rates of cyberbullying. More specifically, Gradinger et al. (2010) suggest that researchers break down cyberbullying into a series of concrete actions and measure the extent to which pupils are exposed to these acts. Thus, Study I may have underestimated the prevalence rates of cyberbullying by merely using a global question. However, more research is needed to determine how the global question could be supplemented with more specific items in order to cover all aspects of cyberbullying (Shaw, Dooley, Cross, Zubrick, & Waters, 2013).

Another limitation is how this thesis dealt with the definition of cyberbullying in the different studies. When decisions were made about how to measure the prevalence of cyberbullying in Study I, we chose a definition inspired by the one from the study by Slonje and Smith, 2008, which included all three of Olweus’s criteria: intentionality, repetition and imbalance of power. One reason for using a definition in which the three criteria are formulated in an offline context was that we wanted to compare our findings with those of Slonje and Smith (2008). It should be emphasized, however, that the participants were given the opportunity to ask questions about what was meant by cyberbullying before they filled out
the questionnaire, which resulted in clarification about how the criteria can be interpreted in a cyber context.

Considering the repetition, is it reasonable to use the cut-off “at least once” to measure whether or not a pupil is cyberbullied by other pupils, or is the cut-off “at least twice per month” more appropriate? Olweus (2013) underlined that he never believed the cut-off “at least twice per month” was crucial in the criterion of repetition in defining offline bullying. He argued that “at least twice per month”, when used to determine the presence/absence of victims, is associated with more maladjustment among victims. I interpret this as the cut-off “at least once” still determining the presence of bullying, but with less maladjustment among the victims. The criterion of repetition is often perceived as a series of events clearly separated in time, for instance when a bully gives a victim nasty nicknames referring to the victim’s appearance day after day in school. However, the criterion of repetition must not necessarily be a serial event; it can also be several parallel attacks occurring similarly or within a very limited time span. For example, several people can simultaneously press the “Like” symbol on an item on Facebook to show that they appreciate a malicious comment.

A methodological limitation in Study II is that in the focus groups the adolescents were asked about cyberbullying without being given a clear-cut definition of the term. However, they seemed to be familiar with the term, and it is our view that the lack of definition did not create confusion in the conversations.

Another methodological limitation is that Studies I, II and III did not control for any involvement in offline bullying, even though there is a good deal of overlap between cyberbullying and offline bullying. Researchers have found that it is often the case that the same pupils are bullied at school and on the internet (Tokunaga, 2010). However, some studies have found that this overlap is not great (Låftman et al., 2013; Ybarra et al., 2007a). Ybarra et al. (2007a) found that 64% of pupils who were cyberbullied did not report also being targeted in school. Låftman et al. (2013) found that many pupils who were involved in cyberbullying were not involved in offline bullying. Even if there is a great overlap between offline bullying and cyberbullying there is a point to investigating cyberbullying in isolation, even if this type of research is limited. One reason for doing this is to try to clarify the processes involved in cyberbullying. Arenas such as social networking sites with photo sharing applications show some of the specific and special features of cyberbullying. The girls in Study II reported that having a photo posted and receiving abusive comments on social networking sites create negative feelings. They also described the effects as sometimes irreversible. Moreover, findings from previous research indicate that this form of bullying
(using compromising photos and videos) has the most severe impact on the victim (Slonje & Smith, 2008; Vandebosch & Cleemput, 2008). The study by Slonje and Smith (2008) revealed that the two most common reasons for this was the concreteness (i.e. the ability to see the photo) and the potentially large audience. Future research could deepen and broaden the understanding and knowledge of the effects of this type of cyberbullying. Finally, more research could also investigate whether it is possible to generalize the conclusion suggested above.

Conclusions

The following tentative conclusions can be drawn from this thesis. First, Study I and II suggest that girls are targeted to a greater extent than boys by cyberbullying that puts the victim’s appearance in focus. Thereto, in Study II appearance-related cyberbullying was reported to be a potent strategy when attempting to hurt girls. Thus, the results of Studies I and II suggest that appearance-related cyberbullying may be gendered. Second, cyberbullying seems to have a number of specific and special features. Anonymity and publicity are probably essential prerequisites for creating and fortifying the imbalance of power and repetition in the cyber context. This indicates that researchers should try to adapt and use Olweus’s definition of offline bullying for cyberbullying. Third, it may be that some Swedish pupils rely on adults (teachers and parents) for help and support, which is a valuable sign of trust for adults, which needs to be maintained. A small minority of the pupils suggested telling a friend; this points to the need for teachers and parents to help pupils develop skills they can use to assist peers and friends in difficult situations.
REFERENCES


APPENDIX


