The relation between retrospective bullying, life satisfaction and risk behaviors

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Abstract

The purpose of this study was to examine the relation between previously experienced bullying with students’ current risk behaviors. The participants were 341 university students in Sweden and the data were collected with a web-based survey. The results showed that students with high experiences of previous bullying were less satisfied with their lives today than students with low experiences of bullying. In addition, male students who experienced bullying in childhood had higher levels of risk behaviors today, whereas female students who experienced bullying in adolescence had higher levels of risk behaviors today. This could be discussed by the fact that relational bullying, which is more common among females, occurs the most in adolescence, while physical bullying, which is more common among males, occurs mostly in childhood. Future research should control for sensation seeking and risk behaviors in adolescence, as well as the effects of cyberbullying.

Keywords: Bullying, childhood, adolescence, risk behaviors, gender differences, life satisfaction.
Relationen mellan retrospektiv mobbning, livstillfredsställelse och riskbeteenden

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Sammanfattning

Syftet med denna studie var att undersöka relationen mellan tidigare upplevd mobbning och studenters riskbeteenden idag. Deltagarna bestod av 341 universitetsstudenter i Sverige och datainsamlingen genomfördes via en webbaserad enkät. Resultatet visade att studenter som tidigare hade upplevt högre nivåer av mobbning var mindre nöjda med sina liv idag jämfört med studenter som hade upplevt lägre nivåer av mobbning. Dessutom hade manliga studenter som hade upplevt mobbning i barndomen högre riskbeteenden idag, medan kvinnliga studenter som hade upplevt mobbning i tonåren hade högre riskbeteenden idag. Detta kan diskuteras genom att indirekt mobbning, som är vanligare hos kvinnor, oftast uppstår under tonåren, medan fysisk mobbning, som är vanligare hos män, oftast uppstår under barndomen. Framtida forskning borde kontrollera för sensationssökande och riskbeteenden i tonåren, samt effekterna av nätmobbning.

Nyckelord: Mobbning, barndom, tonåren, riskbeteenden, könsskillnader, livstillfredsställelse.

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The relation between retrospective bullying, life satisfaction and risk behaviors

Every fourth child in Sweden has experienced some sort of insult in the past year, and every tenth child has been a victim of bullying (Friendsrapporten, 2017). Bullying happens in different environments in schools, the most unsafe places are bathrooms, dressing rooms and corridors. The most common types of insults youths experience are mean comments, psychological or social insults and insults on the internet (Friendsrapporten, 2017). These types of experiences affect children in many ways, but to what extent does it affect them later in adulthood?

Gladden, Vivolo-Kantor, Hamburger & Lumpkin (2014) describes bullying as repeated, aggressive behaviors by other youths that are unwanted and involves an observed power imbalance which inflicts distress, such as educational, social, psychosocial and physical harm on the targeted youth. Being a victim of bullying during adolescence can have negative consequences on a person, which could follow them into adulthood and affect their lives in many ways (Gladden et al., 2014).

There are different types of bullying, such as relational, verbal and physical. Höistad (2001) explains relational bullying as individuals turning their backs on someone, excluding someone, doesn’t answer when spoken to or treating someone as if they were “air”. Spreading rumors or embarrassing pictures of someone also counts as relational bullying. Verbal bullying refers to whispering, threatening, harassing or simply commenting on someone’s hairstyle. Physical bullying is more common in the lower grades and mostly exerted by boys. The physical bullying, that usually is referred to as pushing, kicking or hitting someone, could also be someone “accidently” pushing someone else into their bench or taking someone's backpack (Höistad, 2001).

Sullivan (2011) states that there are clear gender differences in bullying, for example, boys are more often involved in bullying than girls. Boys normally use physical bullying,
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while girls most commonly use a verbal or an indirect approach, such as exclusion. There are also gender differences in how the person responds to the bullying, girls usually respond with sadness while boys most often respond with anger (Sullivan, 2011).

Studies have shown that men and women judge risky situations differently, women are usually more careful than men (Zuckerman, 2006). Women judge risk behaviors that are associated with AIDS, drinking, street drugs, cigarette smoking, and motor vehicle accidents about 10-15% higher than men. Men also tend to be more risky drivers than women, specifically, young men are in the highest rate when it comes to accidents (Zuckerman, 2006).

Research shows that being bullied in childhood can later result in an increase of smoking, drug use and risky sexual intercourse in adulthood (Bouffard & Koppel, 2017). However, this study only focused on bullying during childhood, before the age of 12. Being bullied in adolescence can have equally, if not even more devastating consequences in adulthood (McDougall & Vaillancourt, 2015). Therefore, our present study focuses on bullying in both childhood and adolescence, and makes comparisons between these two periods of life. Another study showed that bullied students were more engaged than non-bullied students, in 17 different risk behaviors, especially safety-related risk behaviors and bringing a weapon to school (Smalley, Warren & Barefoot, 2017). However, this study only focused on how being bullied affected risk behaviors during the time they were bullied, not how it affected risk behaviors in adulthood.

Holt et al. (2014) found that being a victim of childhood bullying was associated with poorer physical and mental health among college students. They reported a limitation to their study that we will take into consideration in our present study, namely positive life experiences, and how it can affect how you recall previously experienced bullying. For example, the participants who are happy with their life today may recall more positive
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memories from their childhood than people who are not satisfied with their life (Holt et al., 2014). Therefore, we wanted to take the “life satisfaction”-aspect into account in our study.

There’s a lot of research regarding the effects of being bullied, but there’s a gap in the research of risk behaviors regarding the gender differences. Also, how males and females differ in their risk behaviors depending on the type of bullying experienced, whether it was relational, physical or verbal bullying (Bouffard & Koppel, 2017). We aimed to fill this gap with our study. Another gap in the research to date is that there is a need to examine different consequences of bullying to address the issue of bullying in schools (Quinn & Steward, 2017). Shelley (2015) described risk behaviors as behaviors that have been linked to causes of death, such as abuse of alcohol, drugs, smoking, self-harm, unhealthy eating habits and risky sexual behavior. The health of an individual is either being undermined or harmed by these behaviors.

We have chosen to focus on more risk behaviors than most previous studies have done before. The first is risky personal safety, for example riding a bike without a helmet or driving a car without wearing a seat-belt. Helmet use has shown to be a critical matter in the United States, since the main cause for head injuries are bike accidents (Shelley, 2015). Also, the lack of use of seat-belt among adolescents in the U.S. has contributed to a high rate of accidents having a fatal outcome (Shelley, 2015). The second is substance use, such as alcohol, nicotine and drug-use, which are all associated with chronic diseases (Shelley, 2015). The third is risky sexual behavior; having sexual intercourse with a lot of people during a short period of time, not using a condom etc. One of the reasons there was a fast spread of AIDS in Africa was partially due to the lack of condom use. Furthermore, having sexual encounters with higher number of partners increases the possibility of getting AIDS (Shelley, 2015). The fourth is self-harm & suicidal ideation, according to Shelley (2015), intentional self-harm and suicide is one of the leading causes of death in the U.S. The fifth is unhealthy
eating habits, such as not eating fruits or vegetables, eating a lot of fast food or drinking a lot of sodas or caffeine. There is approximately 500 million obese and 1.5 billion overweight people worldwide, this comes as no surprise since portion size of meals, soda consumption and snacking has increased substantially over the years in the U.S. Another reason is the high accessibility to fast food (Shelley, 2015). The last one is sleep disturbance, such as having trouble falling asleep, sleeping less than 6 hours per night, or sleeping more than 11 hours per night (National Sleep Foundation, 2017). Shelley (2015) also explains that getting less than 7 hours of sleep can affect an individual in different aspects, such as their cognitive functioning, mood, job performance and quality of life.

The aim of this study was to see whether students risk behaviors differ depending on if they have experienced previous bullying or not. We focused on four major questions in this study, the first concerns whether students with high bullying experiences are unhappier than students with low bullying experiences, and if so, are there any gender differences? Here we looked at the differences in students’ life satisfaction between the ones that have been bullied and the ones that have not. The second question concerns whether having been bullied in childhood or adolescence separately predicts students risk behaviors today. And if so, are there any gender differences? In this study, we defined childhood as ages 6-12 and adolescence as the ages 13-18. The third question concerns whether there are gender differences in how students risk behaviors are affected depending on if the bullying they experienced was relational, physical or verbal. Here we looked at whether relational, physical or verbal bullying separately predicted risk behaviors in both males and females. The fourth and final question concerns whether males and females differ in each risk behavior separately depending on if they have experienced previous bullying or not. Here we first looked at if gender moderates the effect of previously experienced bullying on all risk behaviors, to get a broader sense of how high and low levels of bullying effects each genders risk behavior.
Then, we looked at whether previously experienced bullying predicts all six risk behaviors separately, such as risky personal safety, substance use, self-harm & suicidal ideation, risky sexual behavior, unhealthy eating habits and sleep disturbance.

**Method**

**Participants**

The study population consists of the entire discussion group on Facebook named “dom kallar oss studenter” and four different courses at Örebro University. The courses were psychology (foundation course), psychology 2, criminology 1 and criminology 2. The discussion group had 15,799 members during the time of this study and there was a total of 302 individuals in all four courses that received the e-mail (Universitets- och högskolerådet, 2017), which means that the study population consisted of 16,101 individuals. The participants were recruited through convenience sampling method, because of the availability of university students. 372 (2.4%) individuals responded to our questionnaire. Furthermore, 31 (8.3%) participants were excluded from the analysis because they could not remember if they had experienced previous bullying or not.

Our final sample size consisted of 341 university students in Sweden between the ages of 18 to 47 years old (M = 23.40, SD = 4.18). The distribution in terms of gender was 237 (69.5%) females and 104 (30.5%) males. The participants were promised a chance of winning a small prize with their participation. In our sample, 16 (4.7%) students had a full-time job besides their studies, 144 (42.2%) students had a part-time job and most students, 181 (53.1%), did not have a job. 156 (45.7%) of the participants were single, 155 (45.5%) were in a relationship, 16 (4.7%) were engaged and 14 (4.1%) were married. 113 (33.1%) students had experienced higher levels of bullying in either childhood, adolescence, or both, while 228 (66.9%) students had experienced no bullying or lower levels of bullying.
Measures

The measurements for this study were three validated measures, the first was to measure life satisfaction, the second measured bully victimization and the third measured different risk behaviors. Our survey was divided into four parts, the first part consisted of eight demographic questions regarding age, gender, student status, work, ethnicity and marital status. The remaining parts were the three following measurements.

**Satisfaction With Life Scale (SWLS).** The second part of the questionnaire, to measure life satisfaction was devised by Diener, Emmons, Larsen & Griffin (1985). The scale consisted of five statements and were answered through a Likert scale ranging from 1 to 7, where 1 was “Strongly disagree” and 7 was “Strongly agree”, none of the questions were negatively phrased. Example of statements from SWLS were “I am satisfied with my life”, “So far I have gotten the important thing I want in life” and “In most ways my life is close to my ideal”. According to Diener et al. (1985) the scores ranges from 5 to 35, where a lower score indicates lower life satisfaction and a higher score indicates higher life satisfaction. Since our data consisted of continuous variables, we decided not to turn them into categorical variables. This was done because Field (2013) explained how dichotomizing a continuous variable can change the information, effect size and increase the chance of false findings. Furthermore, we could not find a distinct cutoff point for, e.g. “not satisfied” and “satisfied”, that's why we averaged each participant's answers rather than calculating total scores. So, for the SWLS, a score of 1 indicated a very low life satisfaction, and a score of 7 indicated a very high life satisfaction. In conclusion, using continuous variables is better in our case and done in all measurements. The Cronbach's alpha value for the SWLS was $\alpha = .88$.

**Bully Victimization Scale.** The third part of the questionnaire consisted of the bully victimization scale, which was adopted from Özdemir and Stattin (2016). They measured children's experiences on bullying in present form with three questions. These questions were
then rephrased to measure previously experienced bullying. Since we were interested in looking at experienced bullying in both childhood and adolescence, three additional questions were added. They were identical to the three questions for children but used to measure the experienced bullying in adolescence as well. The participants were asked to answer as much as they could remember. These six questions indicated bullying on three domains; physical, verbal and relational. The questions were “Were you mocked, teased in an unpleasant way, or did anyone say nasty things to you at school or on the way to or from school?”, “Were you beaten, kicked, or assaulted in a nasty way by anyone at school or on the way to or from school?” and “Sometimes one can be ostracized (utfryst) by someone or some people and not be allowed to hang out with them. Did this happen to you?”. They were answered through 4 multiple choice, with the alternatives “never”, “once or twice”, “once a week” or “several times a week”, we also included an “I don’t remember”-option for individuals who simply can’t remember that far back. Here, an average score of 1 indicates a very low level of experienced bullying, and an average score of 4 indicates a very high level of experienced bullying. Participants who answered “I don’t remember” on the bullying victimization scale were excluded from the analyses, since their answers were not specified.

A descriptive table was made for informative purposes in the result section, for lower and higher levels of bullying experience we had to dichotomize the bullying variable. This was done by calculating the total score of the bullying scale, which was 24. Then a breakpoint was made at score 12, participants with a score of 12 and below were categorized as lower bullying experience, 13 or larger had a higher bullying experience. The Cronbach’s alpha value for the bully victimization scale was $\alpha = .84$.

**Youth Risk Behaviors Surveillance (YRBS).** To measure risk behaviors, the youth risk behavior surveillance (YRBS) scale was used (Centers for Disease Control and Prevention, 2017). The original scale had more questions than needed for the aim of our
study, so the scale was modified down to 25 questions regarding risk behaviors, such as personal safety, alcohol-consumption, smoking, drug-use, risky sexual behavior, self-harm, suicidal ideation, sleep disturbance and unhealthy eating habits. We constructed a couple of questions by ourselves since YRBS did not cover all risk behaviors that we were interested in, for example, some of the questions regarding sleep and unhealthy eating habits (see appendix 1). The modified version was more relevant for us and only assessed the risk behaviors for this study.

The questions were answered through multiple choice, the answers were different depending on the question. Most of the questions had 5 alternatives, some questions had 6 alternatives and a few questions had “yes” and “no” alternatives. After the data was collected, we recoded the alternatives so that all scales were the same, with the points of 1 to 5. Examples of questions from the YRBS were “During the past 3 months, with how many people did you have sexual intercourse?”, “During the past 30 days, on how many times did you use other illegal drugs? (such as cocaine, amphetamine, ecstasy, heroin & LSD)” and “During the past 30 days, on how many days did you have at least one drink of alcohol?”. Some of the questions had answers that weren’t categorized as either risky or non-risky, for example giving the answer “I do not drive a car” to the question “How often do you wear a seat-belt when driving a car?”, these were coded as missing data. All questions were mandatory except for two questions, the first was “The last time you had sexual intercourse, which method(s) did you or your partner use to prevent pregnancy?” and the second question was “How often do you use a condom during intercourse?”. The reason why these questions were optional to answer was because not all forms of sexual intercourse can lead to pregnancy or the transference of an STD. Because of these two questions, we had another reason for calculating the mean instead of calculating a total score. If we would have used a total score, the participants who did not answer these two questions would have a lower score.
than everyone who answered all questions. For this scale, an average score of 1 indicates a very low risk behavior, and an average score of 5 indicates a very high risk behavior. The Cronbach alpha value for this scale was $\alpha = .73$.

Since we modified the bully victimization scale and the YRBS, we did a pilot study to ensure validity and reliability. This was done by using the entire questionnaire with 20 individuals, they were asked to complete the questionnaire and inform us if they had any difficulties in understanding the questions. The inter-item reliability showed a Cronbach’s alpha value of $\alpha = .74$ for the YRBS scale and $\alpha = .73$ the bully victimization scale. The Cronbach’s alpha for the SWLS was $\alpha = .78$. These are all higher than the cutoff value of $\alpha = .7$, which means that the scales are measuring the same construct (Christensen, 2015). When the pilot study was completed, some adjustments were administered with the questions to make sure that there would be no misunderstandings.

**Procedure**

The data collection was done through a web-based survey. A questionnaire was sent out to a discussion group on Facebook named “dom kallar oss studenter”. In addition, the questionnaire was sent out through Örebro university email system. The questionnaire was available on “dom kallar oss studenter” for seven days and reposted three additional times for visibility, this was done to ensure a higher response rate. Students were encouraged to complete the entire questionnaire, and they were informed about the time needed to complete the questionnaire (10 min) and some sensitive questions prior their participation. A reward of a cinema gift card worth 250 SEK was promised to be randomly distributed to one participant, this was distributed after the completion of data collection. To reach out to more students, we contacted the administration in the institution of psychology and criminology at the university. Through the administration we got access to anonymous emails that were
linked to different courses, and everyone who was attending these courses got an email with instructions regarding our survey.

Christensen (2015) suggested that a web-survey is a good alternative since it's cost-efficient, there is no required printing costs or involvement of interviewers. Furthermore, we were able to have an instant access to a wide audience, and we were able to download the responses into a statistical analysis program. Since we had quite a large sample and limited resources, this was the most efficient way of collecting our data. In addition, Christensen (2015) suggested that a web-based survey will also eliminate any experimenter effect since the participants can answer at home and alone without anyone affecting their responses. This method was especially important in our study since there were some sensitive questions in our questionnaire, specifically the ones regarding sexual behavior, drug use and suicidal ideation. On the other hand, one of the negative aspect of using a web-survey is volunteer sampling. Volunteer sampling is where the participants self-select into the sample which affects the representativity of the sample (Christensen, 2015). As stated earlier, due to the large sample and limited resource, this dilemma was inevitable.

According to Christensen (2015), there are ethical guidelines that should be considered when conducting research. These guidelines were achieved by giving the participants all the necessary information for our study in a cover letter. An informed consent was implemented by describing all aspects of the study which included the purpose of the study and what the questions would concern, and that the data would be presented at a group level, no individual data would be presented. Furthermore, privacy of the participants was accomplished by promising anonymity and confidentiality by using a web-based survey which eliminated any possibility of identifying a certain participant and that the data would be kept safely, and only the researchers and supervisor would have access to the data.
Moreover, the participants were informed that they could decline their participation at any given time.

**Statistical Analyses**

The data were analyzed by a statistical program named IBM SPSS statistics, where the scale scores for each measurement were entered, which were in turn used in different types of analyses to answer our research questions. In all analyses, a split file was used for the gender variable since all research questions were concerned about gender differences, except in one analysis where gender was used as a moderator instead. A multiple regression was used to see whether there were differences between experiencing bullying in childhood and adolescence on predicting students risk behaviors today. Furthermore, univariate regressions were used to examine if there were any differences on each separate risk behavior category between genders. Another univariate regression was used to see whether participants who had experienced higher levels of bullying predicted life satisfaction. Lastly, a moderated regression was used to see if gender moderates the association between low and high levels of bullying experiences and the involvement in risk behaviors among students.

**Results**

A descriptives table with means and standard deviations of the genders in terms of low and high bullying experience was made (see table 1). The table shows how higher levels of bullying experience had an impact on all variables in the table. There’s an increase in risk behaviors and decrease in life satisfaction in both males and females. By considering each bullying type separately we can see that both males and females experience higher levels of verbal and relational bullying, although females do not experience physical bullying as much as males. Furthermore, males had a higher risk behavior involvement even if the bullying
experience is at the lower levels. Risk behaviors and life satisfaction was more affected by the high levels of bullying experience for males than for females.

Table 1:

<table>
<thead>
<tr>
<th></th>
<th>Low bullying experience</th>
<th>High bullying experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std.Dev.</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk behaviors</td>
<td>2.18</td>
<td>.45</td>
</tr>
<tr>
<td>Verbal</td>
<td>1.71</td>
<td>.53</td>
</tr>
<tr>
<td>Physical</td>
<td>1.19</td>
<td>.30</td>
</tr>
<tr>
<td>Relational</td>
<td>1.36</td>
<td>.47</td>
</tr>
<tr>
<td>Life satisfaction</td>
<td>4.54</td>
<td>1.24</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk behaviors</td>
<td>1.99</td>
<td>.35</td>
</tr>
<tr>
<td>Verbal</td>
<td>1.76</td>
<td>.54</td>
</tr>
<tr>
<td>Physical</td>
<td>1.10</td>
<td>.24</td>
</tr>
<tr>
<td>Relational</td>
<td>1.64</td>
<td>.52</td>
</tr>
<tr>
<td>Life satisfaction</td>
<td>4.65</td>
<td>1.20</td>
</tr>
</tbody>
</table>

Note. Mean = average score; Std.Dev. = standard deviation; Obs = number of observations.

Are students with high bullying experiences unhappier than students with low bullying experiences? Are there gender differences in this respect?

A univariate regression analyses showed that 6% of the variance in student’s life satisfaction among males were significantly explained by previously experienced bullying, $F (1, 102) = 6.35, p < .05$. Experiencing bullying negatively predicted life satisfaction in males, $\beta = -.24, p < .05$. The result also showed that 4% of the variance in student’s life satisfaction among females were significantly explained by previously experienced bullying, $F (1, 235) = 9.44, p < .01$. Experiencing bullying negatively predicted life satisfaction in females, $\beta = -.20, p < .01$. In conclusion, both males and females who had previously experienced bullying reported lower life satisfaction in adulthood than males and females who had not experienced bullying.

Does being bullied in childhood and adolescence separately predict students risk behaviors today? And if so, are there gender differences?
We ran a multiple regression analysis. The results showed that 17% of the variance in male student’s risk behaviors were significantly explained by having been bullied in childhood and adolescence together, $F(2, 101) = 10.49$, $p < .001$. Experiencing bullying in childhood positively predicted male students risk behaviors today, $\beta = .31$, $p < .01$. However, experiencing bullying in adolescence did not significantly predict male students risk behaviors today. The results also showed that 7% of the variance in female student’s risk behaviors were significantly explained by having been bullied in childhood and adolescence together, $F(2, 234) = 8.44$, $p < .001$. Experiencing bullying in adolescence positively predicted female students risk behaviors today, $\beta = .23$, $p < .01$. However, experiencing bullying in childhood did not significantly predict female students risk behaviors today.

**Do males and females differ in their risk behaviors depending on if the bullying they experienced was relational, physical or verbal?**

We ran a multiple regression where the results showed that 20% of the variance in male student’s risk behaviors were significantly explained by experiencing verbal-, physical- and relational bullying together, $F(3, 100) = 8.21$, $p < .001$. Physical bullying positively predicted risk behaviors in adulthood in males, $\beta = .36$, $p < .01$. However, verbal- and relational bullying did not significantly predict risk behaviors among males. The results also showed that 6% of the variance in female’s risk behaviors were significantly explained by previously experienced verbal-, physical-, and relational bullying together, $F(3, 233) = 4.97$, $p < .01$. However, there were no significant effects in any of the separate bullying experiences on risk behaviors in females.

**Do males and females differ in each six risk behavior separately depending on if they have experienced previous bullying or not?**

Table 2: Males
BULLYING, LIFE SATISFACTION AND RISK BEHAVIORS

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risky personal safety</td>
<td>.21</td>
<td>.07</td>
<td>.27</td>
<td>2.8</td>
<td>.006</td>
</tr>
<tr>
<td>Self harm &amp; suicidal ideation</td>
<td>.58</td>
<td>.11</td>
<td>.45</td>
<td>5.13</td>
<td>.001</td>
</tr>
<tr>
<td>Substance use</td>
<td>.19</td>
<td>.10</td>
<td>.18</td>
<td>1.86</td>
<td>.066</td>
</tr>
<tr>
<td>Risky sexual behavior</td>
<td>.10</td>
<td>.11</td>
<td>.09</td>
<td>.87</td>
<td>.385</td>
</tr>
<tr>
<td>Unhealthy eating habits</td>
<td>.32</td>
<td>.09</td>
<td>.32</td>
<td>3.46</td>
<td>.001</td>
</tr>
<tr>
<td>Sleep disturbance</td>
<td>.41</td>
<td>.14</td>
<td>.28</td>
<td>2.99</td>
<td>.004</td>
</tr>
</tbody>
</table>

Note. Predictor = previously experienced bullying.

Table 3: Females

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risky personal safety</td>
<td>.02</td>
<td>.05</td>
<td>.02</td>
<td>.35</td>
<td>.724</td>
</tr>
<tr>
<td>Self harm &amp; suicidal ideation</td>
<td>.40</td>
<td>.09</td>
<td>.27</td>
<td>4.28</td>
<td>.001</td>
</tr>
<tr>
<td>Substance use</td>
<td>.06</td>
<td>.05</td>
<td>.08</td>
<td>1.16</td>
<td>.247</td>
</tr>
<tr>
<td>Risky sexual behavior</td>
<td>-.02</td>
<td>.09</td>
<td>-.01</td>
<td>-.20</td>
<td>.838</td>
</tr>
<tr>
<td>Unhealthy eating habits</td>
<td>.16</td>
<td>.07</td>
<td>.16</td>
<td>2.4</td>
<td>.017</td>
</tr>
<tr>
<td>Sleep disturbance</td>
<td>.42</td>
<td>.09</td>
<td>.29</td>
<td>4.69</td>
<td>.001</td>
</tr>
</tbody>
</table>

Note. Predictor = previously experienced bullying.

A series of univariate regression were made on each risk behavior to determine whether there are any differences between them. Bullying positively predicted risky personal safety among males but not females, the predictor explained 7.1% of the variation, F (1,102) = 7.84, p < .01 among males. Self-harm & suicidal ideation, was positively predicted by bullying in both males and females. The variation explained was 21%, F (1,102) = 26.30, p < .001 in males, and 7.2%, F (1, 235) = 18.34, p < .001 in females. Unhealthy eating habits was positively predicted among males and 11% of the variation was explained by bullying, F (1, 102) = 11.94, p < .001, no association was found among females. Bullying positively predicted sleep disturbance in both genders, 8% of the variation was explained among males, F (1, 102) = 8.93, p < .01 and 9% in females, F (1, 235) = 21.96, p < .001. However, bullying did not significantly predict substance use or risky sexual behavior (see table 2 & 3).
We also ran a moderated regression analysis to test whether gender moderates the association between previously experienced bullying and all risk behaviors together. The results showed that the overall model explained 16.3% of the variations in risk behaviors, $F(3,337) = 21.90, p < .001$. Students who had experienced bullying reported higher levels of risk behaviors, $b = .29, p < .001$, whereas gender did not predict risk behaviors, $b = .05, p = .73$. Test of the interaction effect suggested that gender significantly moderated the association between previously experienced bullying and risk behaviors in adulthood, $b = -.15, p < .05$. The interaction term explained 1.2% of the variations in risk behaviors by itself, $F(1,337) = 4.75, p < .05$. Simple slope test revealed that both males and females who experienced higher levels of bullying also had higher levels of risk behaviors in adulthood. However, the increase was larger in males, $b = .29, p < .001$, than in females, $b = .14, p < .01$ (see diagram 1).

**Diagram 1:**

![Diagram showing the relationship between bullying experience and level of risk behavior by gender](image)
Discussion

In the present study, we examined whether childhood- and adolescent bullying experiences has any consequences on risk behaviors in adulthood. Our findings clearly showed that previously experienced bullying had a significant effect on several risk behaviors that were examined, and that males were more affected by the bullying experience than females. This was reflected by higher levels of risk behaviors in personal safety, unhealthy eating habits, self-harm and suicidal ideation.

According to Holt et al. (2014), life satisfaction could be considered as a confounding factor in the research of retrospective bullying. For example, a happy person might recall happier memories from their childhood, while an unhappy person may recall less happy memories. Our results showed that students with high bullying experience reported lower life satisfaction than students with low bullying experience. This could be explained by several reasons, the first might be that a person who has experienced bullying are unhappier because of the bullying they have experienced. But it could also be, as Holt et al. (2014) believed, that the unhappy person recalls unhappier memories from their life and therefore may exaggerate their previous experiences, while the happy person recalls more happy memories and may suppress any memories of bullying. Thus, it is difficult to determine about the cause and effect in our study.

Bouffard and Koppel (2017) found that experiencing bullying in childhood could lead to an increase in smoking, drug use and risky sexual behavior. In our study, we examined experiences of bullying in both childhood and adolescence, and our results showed that females were more affected by bullying in adolescence while males were more affected by bullying in childhood. These results are often in the literature said to be explained by the fact that girls more often experience relational bullying, which is more common in adolescence.
BULLYING, LIFE SATISFACTION AND RISK BEHAVIORS

(Smith, Rose & Schwartz-Mette, 2009), while boys experience more physical bullying, which happens more often in childhood (Höistad, 2001).

Our results showed that bullying did not predict substance use in adulthood, and this could be explained by several reasons, one of them might be that both smoking and consuming alcohol is influenced by genetics (Shelley, 2015). Furthermore, smokers tend to be less aware about their health and are usually less educated and less intelligent. In addition, alcohol consumption and smoking generally go together which makes it even harder to quit. Shelley (2015) continues to state other reasons to why adolescents start smoking, such as social pressure, lower social class and stressors. Thus, there are different confounding factors that can affect smoking and drinking. In our study, we have not studied genetic factors. Also, our sample were university students who seem to be educated and intelligent.

Bullying did also not predict risky sexual behavior, including having sexual intercourse with many people during a short period of time or not wearing a condom during sexual intercourse. One reason for not wearing a condom might be because the most severe forms of sexually transmitted diseases, such as HIV, are not as common in Sweden. During 2016, only 430 people reported having the disease in Sweden (Folkhälsomyndigheten, 2017). The most common sexually transmitted disease in Sweden is chlamydia. During 2016, 36 203 people reported having the disease in Sweden (Folkhälsomyndigheten, 2017). Chlamydia can be easily treated with antibiotics and is completely free of charge in Sweden (Vårdguiden, 2017), which might also be a reason to why individuals do not care to use condoms. Another risk people take by not wearing a condom is the chance of getting an unwanted pregnancy. However, it is easier to get an abortion in Sweden compared to many other countries in the world. During 2016, approximately 38 000 abortions were done in Sweden (Socialstyrelsen, 2017). Furthermore, many risk behaviors such as risky sexual behavior seem to be predicted by numerous factors; family problems, poor self-control, low self-esteem, difficult
temperament and low IQ (Shelley, 2015). In addition, a study on adolescent girls showed that they underestimated the risks of unprotected sex and had poor knowledge about sexually transmitted diseases and safe sex. In conclusion, there could be several reasons why previously experienced bullying did not affect this category of risk behavior.

One surprising finding with our results was that male students were more affected by previously experienced bullying than female students. However, it is probably not surprising that males have higher levels of risk behaviors than females. Zuckerman (2006) explained that males usually tend to expose themselves to more risky situations than females. Risky driving, substance use and risky sexual activity are only a few of the areas where males tend to be more involved than females. One might say that bullying might not even be one of the reasons for this behavior. However, our results still showed that males who had experienced bullying had higher levels of risk behaviors than males who had not experienced previous bullying.

This study had a few limitations that were unavoidable and left us with some unanswered questions. Firstly, we used a cross-sectional design with a quantitative research approach which has some disadvantages, cross-sectional data is collected within a single time period and examines different groups of age cohorts, whereas a longitudinal design follows the same individuals over two or more time periods. This means that all individuals in a longitudinal study are exposed to the same environmental factors, with this said, an age cohort effect might affect the results in a cross-sectional design (Christensen, 2015).

Furthermore, a longitudinal design would better explain if previously experienced bullying causes a higher involvement in risk behaviors later in adulthood. As explained in the method section, the web-based survey that includes a volunteer sampling might negatively affect the representativity of the sample. Moreover, it gave us a skewed distribution in terms of gender which does not represent the population entirely correct.
Since the risk behaviors were measured on mostly students in their early twenties, a confound of sensation seeking might affect the results, evidence showed that individuals between the ages 18 - 25 have the highest sensation seeking (Zuckerman, 2006). Therefore, future studies should take sensation seeking into consideration. In addition, future studies could also control for risk behaviors in adolescence, since most of the risk behaviors that were examined are not likely to appear in childhood. Another aspect to be considered in future studies, since we live in modern society where bullying can occur completely anonymously through the internet, is cyberbullying. During experiences of traditional bullying, the victims are usually able to have a reprieve when leaving the situation. Cyberbullying can happen anywhere, anytime, and there are few ways for the victims to fully escape or avoid it (Watts, Wagner, Velasquez & Behrens, 2017).

The strengths of this study were the quite large sample size which increased the chance of finding a significant association between experienced bullying and risk behaviors (Christensen, 2015). Another strength was that our study measured how much previously experienced bullying predicted life satisfaction, which previous studies did not. Our study also examined if there were any differences between experienced bullying in childhood and adolescence, which there were, and gender differences were also shown in the matter.

Concerning the implications of bullying in childhood and adolescence, our results suggested that schools should invest more money into prevention programs and teachers should be more educated on how to spot and prevent bullying among children. The bullying that occurs in Swedish schools this year are estimated to cost the society 17.5 billion SEK over the next 30 years, which is equivalent to 35 800 teachers yearly salaries (Friends, 2016). Just imagine how the schools would look if this money were instead spent on preventions and more resources for teachers and counselors to help children in schools. However, the money is not the most important factor here. The children are the ones who pay the price of being
victims of bullying, which may affect their lives in several ways. Some children may never recover from the constant bullying they are exposed to, and some might even, in the worst cases, take their own lives because of it. Therefore, it is vital for us adults to do everything in our power to stop this unnecessary victimization.
References


Enkät om mobbning och riskbeteenden

Hej!

Vi är två studenter som skriver vår C-uppsats i psykologi och vi har utformat en enkät som riktar sig till universitetsstudenter i Sverige. Syftet med studien är att se om personer som tidigare blivit utsatta för mobbing skiljer sig i sina riskbeteenden jämfört med personer som inte blivit utsatta för mobbing. De riskbeteenden frågorna rör sig om är alkoholkonsumtion, rökning, droganvändning, sexuellt beteende, självmordstankar, sömn- och kostvanor. Vissa frågor kan ses som känsliga, därför måste du vara över 18 år för att delta i studien.


Vi uppskattar verkligen att du tar dig tid att besvara vår enkät, tack för hjälpen!

Om du har några frågor eller funderingar är du mer än välkommen att kontakta oss via mail: denpah091@studentmail.oru.se och sabina_olofsson@hotmail.com

*Obligatorisk

**Enkät om mobbning och riskbeteenden**

**Age** *

**Gender** *
Female
Male
Other

**Are you a university student in Sweden? (If no, you do not need to continue answering this survey).** *
Yes
No

**How many semesters have you studied?** *
1-2
3-4
5-6
7 or more
Not sure

**Do you have a job?** *
Yes, full-time (heltidsjobb)
Yes, part-time (deltidsjobb)
No

**Where were you born?** *
Sweden
Outside of Sweden

**What language do you speak at home?** *
Swedish
Other language(s)
Both Swedish and other language(s)

**Marital status (civilstatus)** *
Single
In a relationship
Engaged
Married
None of the above

**Life satisfaction**
Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by selecting the appropriate number. Please be open and honest in your responding.

**In most ways my life is close to my ideal** *
Strongly disagree Strongly agree
1  2  3  4  5  6  7

**The conditions of my life are excellent** *
Strongly disagree Strongly agree
1  2  3  4  5  6  7

**I am satisfied with my life** *
Strongly disagree Strongly agree
1  2  3  4  5  6  7

**So far I have gotten the important thing I want in life** *
Strongly disagree Strongly agree
1  2  3  4  5  6  7

**If I could live my life over, I would change almost nothing** *
Strongly disagree Strongly agree
1  2  3  4  5  6  7

**Questions regarding bullying**
Experiencing bullying in childhood (age 6-12)
Answer these questions in regard to how it was for you in childhood (age 6-12), as well as you can remember.

**Were you mocked, teased in an unpleasant way, or did anyone say nasty things to you at school or on the way to or from school?** *
Experiencing bullying in adolescence (age 13-18)

Answer these questions in regard to how it was for you in adolescence (age 13-18), as well as you can remember.

Were you mocked, teased in an unpleasant way, or did anyone say nasty things to you at school or on the way to or from school? *
Never
Once or twice
Once a week
Several times a week
I don't remember

Were you beaten, kicked, or assaulted in a nasty way by anyone at school or on the way to or from school? *
Never
Once or twice
Once a week
Several times a week
I don't remember

Sometimes one can be ostracized (utfryst) by someone or some people and not be allowed to hang out with them. Did this happen to you? *
Never
Once or twice
Once a week
Several times a week
I don't remember
Once a week
Several times a week
I don't remember

Questions about current risk behaviors
Questions about personal safety

**During the past 12 months, when you rode a bicycle, how often did you wear a helmet?** *
I did not ride a bicycle during the past year
Never wore a helmet
Rarely wore a helmet
Sometimes wore a helmet
Most of the time wore a helmet
Always wore a helmet

**How often do you wear a seat belt when driving a car?** *
I do not drive a car
Never
Rarely
Sometimes
Most of the time
Always

**During the past 12 months, how many times did you get into a car driven by someone who had been drinking alcohol?** *
0 times
1 time
2 or 3 times
4 or 5 times
6 or more times

**During the past 12 months, how many times did you drive a car when you had been drinking alcohol?** *
0 times
1 time
2 or 3 times
4 or 5 times
6 or more times

**During the past 30 days, how many times did you use your phone while driving?** (such as talking on the phone, texting or for other purposes) *
0 times
1 time
2 or 3 times
Questions about sad feelings, self-harm and suicidal thoughts.

During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities? *
Yes
No

During the past 30 days, how many times have you self-harmed (e.g. cutting, scratching, biting and burning)? *
0 times
1 time
2 or 3 times
4 or 5 times
6 times

During the past 12 months, did you seriously consider attempting suicide? *
Yes
No

Questions about substance use

During the past 30 days, on how many days did you smoke cigarettes? *
0 days
1-2 days
3-9 days
10-19 days
20-29 days
all 30 days

During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day? *
I did not smoke cigarettes during the past 30 days
1 cigarette per day
2 to 5 cigarettes per day
6 to 10 cigarettes per day
11 to 20 cigarettes per day
More than 20 cigarettes per day

During the past 30 days, on how many days did you use tobacco other than cigarettes, such as snus, cigars or cigarillos? *
During the past 30 days, on how many days did you have at least one drink of alcohol? *
0 days
1 or 2 days
3 to 5 days
6 to 9 days
10 to 19 days
20 to 30 days

During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours? *
0 days
1 or 2 days
3 to 5 days
6 to 9 days
10 to 19 days
20 to 30 days

During the past 30 days, how many times did you use marijuana? *
0 times
1 or 2 times
3 to 9 times
10 to 19 times
20 to 29 times
30 or more times

During the past 30 days, on how many times did you use other illegal drugs? (such as cocaine, amphetamine, ecstasy, heroin & LSD) *
0 times
1 or 2 times
3 to 9 times
10 to 19 times
20 to 29 times
30 or more times

Questions about sexual behavior

During the past 3 months, with how many people did you have sexual intercourse? *
I have not had sexual intercourse during the past 3 months
1 person
2 people
3-4 people
5-6 people
7 or more people

The last time you had sexual intercourse, which method(s) did you or your partner use to prevent pregnancy? (If you had sexual intercourse that could not lead to pregnancy you can skip this question)
I have never had sexual intercourse
No method was used to prevent pregnancy
Birth control pills
Condoms
Withdrawal (Pull out method)
Some other method

How often do you use a condom during intercourse? (If you had sexual intercourse that could not lead to pregnancy or transferring of a STD you can skip this question)
I have never had sexual intercourse
Never
Rarely
Sometimes
Most of the times
Always

Questions about eating habits

During the past 7 days, how many times did you eat fruits or vegetables? *
I did not eat any fruits or vegetables during the past 7 days.
1 to 3 times
4 to 6 times
1 time per day
2 to 3 times per day
4 or more times per day

During the past 7 days, how many times did you eat fast food? *
I did not eat fast food during the past 7 days.
1 time
2 to 3 times
4 to 6 times
1 time per day
2 or more times per day
During the past 7 days, how many times did you consume caffeine? *(Such as coffee & energy drinks)*
I did not consume any caffeine during the past 7 days
1 to 3 times
4 to 6 times
1 time per day
2 to 3 times per day
4 or more times per day

During the past 7 days, how many times did you drink a can, bottle, or glass of soda *(such as coca cola, fanta, sprite, pepsi, also counting diet soda)*
I did not drink soda during the past 7 days
1 to 3 times
4 to 6 times
1 time per day
2 to 3 times per day
4 or more times per day

Questions about sleep

Do you have trouble falling asleep? *
Never
Rarely
Occasionally
Most nights/days
Always

On an average weekday (monday-friday), how many hours of sleep do you get? *
4 hours or less
5 or 6 hours
7 to 8 hours
9 to 10 hours
11 hours or more

During the past 7 days, how was your quality of sleep? *
Really bad
Bad
Moderate
Good
Very good