Effects of bullying on symptoms of depression and anxiety, the importance of parental support

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Foreword and Acknowledgement

Submitted in partial fulfillment of the BSc Psychology degree, Reykjavik University, this thesis is presented in the style of an article for submission to a peer-reviewed journal.
Abstract

Over the years bullying has increased dramatically and a significant number of children are involved in bullying, either as victims or as bullies themselves. Research has found bullying to be associated with self reported symptoms of anxiety and depression among adolescents while parental support is associated with lower levels of depressive and anxiety symptoms among adolescents. The main purpose of the current study was to investigate further the relationship between bullying and symptoms of depression and anxiety and whether this relationship varied dependent on parental support. The relationship between parental support and the frequency of bullying was also investigated. The present study used archival data “Ungt Fólk 2004” (Youth in Iceland 2004) collected by The Icelandic Centre for Social Research and Analysis. Participants in the study were students from 29 high schools in Iceland, 952 boys and 1.012 girls (22 participants did not register their sex). The results showed that bullying was associated with increased symptoms of depression and anxiety among the adolescents while parental support decreased these symptoms. Parental support also reduced bullying. The results also showed that the effects of bullying did not vary dependent on parental support.

Key words: Bullying, depression, anxiety, parental support

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Abstract-Icelandic


Lykilord: Einelti, þunglyndi, kvíði, stuðningar foreldra
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Bullying has been described as a way for one or more students to continuously expose another student to negative actions (Olweus, 1997). When someone intentionally inflicts pain or discomfort upon another person that person is being exposed to negative actions. Over the years bullying has dramatically increased and a significant number of children are involved in bullying, either as victims or as bullies themselves (Nansel et al., 2001). Today bullying is both happening at school and through social media (Raskauskas & Stoltz, 2007). Bullying has been associated with self reported symptoms of both depression and anxiety (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Fekkes, Pijpers, & Verloove-Vanhorick, 2004) and studies show that victims of bullying have lower self-esteem, are lonelier and have lower scores on self-worth measures compared with those who are not being bullied (Callaghan & Joseph, 1995; Olweus, 1997). While bullying is known to have serious consequences on adolescents’ lives, little is known about the impact of other factors, such as parental support. Research has linked parental support to lower levels of symptoms of depression and anxiety among adolescents (Holt & Espelage, 2007). Furthermore, those adolescents who receive parental support are less likely to be bullied or participate in bullying (Wang, Iannotti, & Nansel, 2009). It is therefore important to examine further the potential role parental support may play in bullying and its consequences on adolescents’ lives. In particular, the aim of this research is to examine whether the association between bullying and depression and anxiety might be mediated by the level of parental support the adolescents receive.

McCabe, Antony, Summerfeldt, Liss and Swinson (2003) found that being bullied in childhood and/or during adolescence was associated with developing social anxiety in adulthood. Those participants who reported higher levels of bullying during adolescence and/or in childhood also experienced more anxiety when in social situations both, during adolescence and in childhood.
Lund et al. (2009) examined the relationship between bullying and depression among 11,532 Danish men. Participants were asked whether they had been bullied at school and whether a doctor had ever diagnosed them with depression. Participants also completed the Major Depression Inventory, which measures self-reported symptoms of major depression (Bech, Rasmussen, Olsen, Noerholm, & Abildgaard, 2001). The results showed that those participants who reported being bullied during childhood had higher chances of being diagnosed with depression between the ages of 31-35 years old compared with those who had not been bullied.

Siegel, Greca and Harrison (2009) conducted a study on 288 adolescents between the ages of 14-19 years old. Participants answered two questionnaires at two points in time during the same school year, November and January. The questionnaires contained questions about social anxiety and peer relationships. The results of the study showed that those adolescents who reported more victimization also had higher levels of social anxiety compared to those adolescents who reported less victimization.

Rigby (2000) investigated the effects of bullying and social support on adolescents’ well-being. His study was conducted on 450 boys and 395 girls in Australia aged 12-16 years old. Participants answered questions concerning victimization, well-being, symptoms of depression and anxiety and how often in the past 12 months they had been bullied. Results of the study showed that those adolescents who reported more bullying and received low levels of social support were more at risk of poor mental health. The results therefore suggest that the impact of bullying on adolescents’ mental health may partly depend on the support they are receiving from peers or family.

Research has also shown that adolescents who are not involved in bullying receive more social support from their mothers and their peers compared with those who are being bullied and those who bully others (see Holt & Espelage, 2007). Holt’s and Espelage’s study showed
that those adolescents who reported higher levels of social support also had fewer symptoms of depression and anxiety.

Dallaire et al. (2006) found low parental support to be positively related to children’s depressive symptoms. The results of his study showed that those children whose parents were more hostile and critical towards them reported more symptoms of depression. The exact opposite was found for those children whose parents were more supportive. The results showed that those children whose parents were more warm and responsive towards them reported fewer symptoms of depression. Other studies have found parental support to be significantly related to adolescents’ self-esteem and academic achievement (Barber, Chadwick, & Oerter, 1992; Bean, Bush, McKenry, & Wilson, 2003).

Wang, Iannotti and Nansel (2009) conducted a study in 2005 and 2006 on 7,508 adolescents. Participants were asked how often in the past two months they had bullied others or been bullied themselves. They were also asked questions about parental support, whether they felt love and help from their parents, whether their parents understood their worries and made them feel better when upset. The results showed that parental support both protected the adolescents from being bullied and from becoming bullies.

More studies are needed to examine the role of parental support in bullying and its impact on adolescents’ mental health and well-being. Because parental support has been shown to affect adolescents’ well-being, self-esteem and academic achievement as well as reducing the chances of adolescents being involved in bullying, it may be an important mediating factor in reducing the impact of bullying on adolescents’ mental health.

The present study examines the association between bullying and parental support with depression and anxiety. The study also examines the relationship between parental support and the frequency of bullying. It is hypothesized that 1) bullying is associated with increased symptoms of depression and anxiety among adolescents, 2) parental support is associated
with decreased symptoms of depression and anxiety as well as decreased bullying, and 3) that the association between bullying and anxiety and depression is partly mediated by parental support. In short, it is expected that the relationship between bullying and depression and anxiety will be significantly reduced when controlling for parental support.

**Method**

**Participants**

The present study used data from the *Youth in Iceland* study. The data was gathered by the Icelandic Centre for Social Research and Analysis (ICSRA) for the *Youth in Iceland 2004* study (Álfgeir Logi Kristjánsson, Silja Björk Baldursdóttir, Inga Dóra Sigfúsdóttir and Jón Sigfússon, 2004). Participants in the study were 1,986 adolescents who were randomly chosen from a population of 11,031 adolescents enrolled in 29 high schools in Iceland in 2004. The majority of the participants were between the ages of 15 and 20 years old, which is the normal high school age in Iceland, although occasional participants might have been older than 20 years. There were 952 boys (47.9%) and 1,012 girls (51.0%) in the study, a total of 22 participants did not register their sex. Participants did not receive any payment for their participation in the study.

**Measures**


The Symptom Checklist-90-R (RSCL 90) (Derogatis & Savitz, 1999) was used to measure both depressive and anxiety symptoms. One of the questions it contained was: “How often in the past week did you experience the following discomfort?”. “You became sad or had little interest in doing things”. Participants answered from 1 (nearly never) to 4 (often).
In addition to the RSCL 90 list, participants responded to 6 statements that measured their anxiety. Participants responded on a 5 point Likert scale from 0 (does not apply to me) to 4 (applies to me very well). The statements concerned participants’ shyness in new situations, whether they found it difficult to work when they were being watched, whether they easily became embarrassed, whether they had difficulty speaking to strangers, whether they felt nervous speaking in front of a group of people and whether they felt agitated when they were around a big group of people.

Bullying was measured with seven statements asking the participants how well each statement applied to them. The statements asked participants whether they felt bad during school, whether they wanted to quit school, whether they wanted to exchange schools, whether they felt bad during class or during recess, whether they felt like an outsider during school and whether they felt that they were being bullied. Participants responded on a 5 point Likert scale from 1 (nearly always applies to me) to 5 (nearly never applies to me).

Parental support was measured using five statements asking participants how easy or difficult it was for them to receive the following from their parents: care and warmth, conversation about personal issues, advice on their studies, advice on other topics, and assistance to do various work. Participants answered on a 4 point Likert scale from 1 (very difficult) to 4 (very easy).

**Design and procedure**

Pearson correlation coefficient was used to examine the relationship between bullying and depression and anxiety on one hand and between parental support and depression, anxiety and the frequency of bullying on the other. A partial correlation was used to measure the relationship between bullying and depression and anxiety when controlling for parental support.
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An institutional permission for the research was provided by the BSc Psychology course committee at Reykjavik University. A permission to use the data was obtained from ICSRA. The questionnaire was administered to all high schools in Iceland, a total of 29 schools. Teachers in each class administered the questionnaire to the students, following the instructions given by ICSRA (Álfgeir Logi Kristjánsson et al., 2004). The participants were instructed to not write their name or their social security number on the questionnaire. Participants were told that if they needed any assistance concerning the questionnaire they could raise their hand and the teacher would assist them as best as possible. Participants were asked to answer each question as honestly as possible. When participants had finished answering all of the questions they were asked to put the questionnaire in a blank envelope and return it to the teacher.

Data analysis

The study looked at the effects of bullying on symptoms of depression and anxiety as well as the effects of parental support. Before the data could be analyzed it had to be manipulated in order for the efficient data analysis to take place. Question 23, which was used to measure bullying, had different values compared to the other questions that were used in the study, its values ranged from 1 (nearly always applies to me) to 5 (nearly never applies to me). In order for all the questions to have the same range, from the lowest value (nearly never applies to me) to the highest value (applies to me very well), the values on question 23 needed to be recoded. This was done by changing the old values into new values, value 1 was changed to value 5 and so on. Mean score for each variable was obtained by adding the scores for the relevant statements and by dividing the number of statements.

Results

The current study examined the relationship between bullying, parental support and symptoms of depression and anxiety. Criterion for significance was set at alpha .05.
Descriptive statistics for the variables used in this study are shown in Table 1. The table shows mean scores as well as standard deviation for age and gender, symptoms of depression and anxiety, bullying and parental support.

Table 1

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1916</td>
<td>4.75</td>
<td>1.84</td>
</tr>
<tr>
<td>Gender</td>
<td>1964</td>
<td>1.52</td>
<td>0.50</td>
</tr>
<tr>
<td>Depression</td>
<td>1952</td>
<td>1.69</td>
<td>0.63</td>
</tr>
<tr>
<td>Anxiety</td>
<td>1959</td>
<td>2.55</td>
<td>0.69</td>
</tr>
<tr>
<td>Bullying</td>
<td>1964</td>
<td>1.44</td>
<td>0.61</td>
</tr>
<tr>
<td>Parental support</td>
<td>1956</td>
<td>3.45</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Figure 1 and 2 show Pearson correlation coefficients for variables used in the study. The figures also show $r$ and $p$ values before and after controlling for parental support. The results show that bullying is independently related to both symptoms of depression ($r = .49, p < .01$) and anxiety ($r = .30, p < .01$). Bullying is also negatively related to parental support ($r = -.26, p < .01$), that is, less bullying is related to better parental support. As can be seen in figure 1 and 2, the results also show that parental support is independently related to both symptoms of depression ($r = -.25, p < .01$) and anxiety ($r = -.12, p < .01$). Less parental support is associated with higher scores for anxiety and depression.

Figure 1 and 2 also show results from the partial correlation which was conducted in order to see how much of the variance in depression and anxiety was explained by bullying when controlling for parental support. The results showed that after controlling for parental support there is a slightly lower but highly significant correlation between bullying and symptoms of depression ($r = .45, p < .01$), and between bullying and anxiety ($r = .28, p < .01$). The reduction in $r$ was minimal after controlling for parental support, indicating that the
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relationship between bullying and symptoms of anxiety and depression is not mediated by parental support.

Figure 1. Pearson correlation coefficients and p values for bullying, depression and parental support a) before and b) after controlling for parental support.

Figure 2. Pearson correlation coefficients and p values for bullying, anxiety and parental support a) before and b) after controlling for parental support.

Discussion

The current study aimed to investigate the relationship between bullying and symptoms of depression and anxiety and the effects of parental support among 1,986 Icelandic adolescents. The main focus of the study was to examine the relationship between these variables and to see whether bullying was associated with an increase in symptoms of
The effects of bullying on depression and anxiety. The aim of the study was also to see whether parental support was related to lower levels of depressive and anxiety symptoms, and whether bullying was associated with less parental support. The aim was to see whether the association between bullying and anxiety and depression was partly mediated by parental support.

The findings of the study support the hypothesis that bullying is associated with increased symptoms of depression and anxiety among adolescents. The results show that the more experience the adolescents have with bullying the higher they score on both depression and anxiety measures. These results are consistent with previous studies that have found that those adolescents who report being bullied more often experience more symptoms of depression (Bond et al., 2001; Callaghan & Joseph, 1995; Fekkes et al., 2004; Olweus, 1997) and anxiety (McCabe et al., 2003; Siegel et al., 2009) compared to those adolescents who report being bullied less often.

The results of the study also support the hypothesis that parental support is associated with decreased symptoms of depression and anxiety as well as a decrease in bullying. The results show a negative relationship between parental support and symptoms of depression and anxiety, indicating that when participants perceived more support from their parents, symptoms of depression and anxiety decreased. This is consistent with previous findings that have found higher levels of parental support to be related to lower levels of symptoms of depression (Dallaire et al., 2006) and anxiety (Holt & Espelage, 2007). The results also show that parental support is associated with less bullying which is consistent with previous research that has found that those adolescents who report having more parental support are less likely to be involved in bullying (Wang et al., 2009).

The third hypothesis in the study was not supported. It was hypothesized that the association between bullying and anxiety and depression would be partly mediated by parental support. That is, that the relationship between bullying and depression and anxiety
would be significantly reduced when controlled for parental support. The results show that when controlling for parental support the reduction in both depressive and anxiety symptoms caused by bullying is minimal, indicating that there is not a relationship between bullying and symptoms of depression and anxiety when controlling for parental support. Therefore, the results show that the effects of bullying on symptoms of depression and anxiety still remain after controlling for parental support, indicating that bullying affects symptoms of depression and anxiety among adolescents even though the adolescents have high levels of support from their parents.

These results are inconsistent with Rigby’s results that suggest that the impact of bullying on adolescents’ mental health may partly depend on the support they receive from their family or peers. The reason for this difference could be due to the fact that the present study used data that only asked about participants’ current bullying symptoms and did not ask about participants’ bullying history as Rigby did in his study. This could influence the results of the current study.

The current study has some limitations. First, the study used self-reported data from the adolescents themselves. Future studies might consider obtaining more information from other sources, such as family members, school peers or teachers. Although self-report measures are commonly used when measuring bullying it is important to incorporate more sources of information.

The second limitation is that only seven statements were used to measure bullying. The statements may have been rather limited because they only asked about adolescents’ current state, not about the adolescents’ bullying history. Adolescents’ perception of what bullying is also might vary and therefore some might perceive that they are being bullied while others may not. More information about bullying history might have provided more accurate results.
It is important for future studies to continue to investigate bullying and the effects it has on adolescents’ psychological well-being and what factors are important in terms of reducing these effects and furthermore to protect adolescents from being bullied. More studies are needed to explore other factors, such as parental support, and to see whether they can be said to help in reducing the effects caused by bullying and perhaps preventing them. More cross-sectional and longitudinal studies are needed to study this further.

In conclusion, bullying has serious effects on adolescents’ mental health and its effects are continuous even though the adolescents have support from their parents. It is important for future studies to investigate further which other factors are at play in order to prevent and stop bullying because its effects are clearly damaging in any situation.
References


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Appendix A

Chosen questions

Ert þú strákur eða stelpa? (spurning 1)

a. Strákur
b. Stelpa

Hvaða ár ert þú fædd(ur)? (spurning 2)

a. 1990
b. 1989
c. 1988
d. 1987
e. 1986
f. 1985
g. 1984
h. 1983
i. 1982
j. 1981
k. 1980
l. annað, árið 19___

Hversu vel finnst þér eftirfarandi staðhæfingar eiga við um þig? (spurning 23)

a. Mér líður illa í skólanum
b. Mig langar til að hætta í skólanum
c. Mig langar til að skipta um skóla
d. Mér líður illa í kennslustundum
e. Mér líður illa í frímínútum
f. Mér finnst ég vera utanveltú í skólanum
g. Mér finnst ég vera lögd/lagður í einelti í skólanum

Valmöguleikar:

1. Á nær aldrei við um mig
2. Á sjaldan við um mig
3. Á stundum við um mig
4. Á oft við um mig
5. Á nær alltaf við um mig

Hversu auðvelt eða erfitt væri fyrir þig að fá eftirfarandi hjá foreldrum þínum?
(spurning 42)

a. Umhyggju og hlýju
b. Samræður um persónuleg málefni
c. Ráðleggingar varðandi námið
d. Ráðleggingar varðandi önnur verk (viðfangsefni) þín
e. Aðstoð við ýmis verk

Valmöguleikar:

1. Mjög erfitt
2. Frekar erfitt
3. Frekar auðvelt
4. Mjög auðvelt

Hversu oft varðst þú var/vör við eftirfarandi vanlíðan eða óþægindi síðastliðna viku?
(spurning 51)

a. Taugaóstyrrk
b. Skyndilega hræðslu án nokkurra ástæðu
c. Þú varst uppspennt(ur)
d. Þú varst leið(ur) eða hafðir lítinn áhuga á að gera hluti
e. Þú hafðir litla matarlyst
f. Þér fannst þú einmanna
g. Þú grést auðveldlega eða langaði til að gráta
h. Þú áttir erfitt með að sofna eða halda þér sofandi
i. Þú varst niðurdregin(n) eða dapur/döpur
j. Þú varst ekki spennt(ur) fyrir að gera nokkurn hlut
k. Þér fannst þú vera hægfara eða hafa lítinn mátt
l. Þér fannst framtíðin vonlaus
m. Þú hugsaðir um að styttja þér aldur
Valmöguleikar:

1. Nær aldrei
2. Sjaldan
3. Stundum
4. Oft

Hversu vel finnst þér eftirfarandi staðhæfingar eiga við um þig? (spurning 83)

a. Ég þarf tíma til að jafna mig á feimni minni við nýjar aðstæður
b. Mér finnst erfitt að vinna þegar fylgst er með mér
c. Ég verð auðveldlega vandræðaleg(ur)
d. Mér finnst ekkert erfitt að tala við ókunnuga
e. Ég er kvíðin(n) þegar ég tala frammi fyrir hópi af fólki
f. Ég verð óróleg(ur) í stórum hópi fólks

Valmöguleikar:

0. Á alls ekki við um mig
1.
2.
3.
4. Á mjög vel við um mig