

**Friendship Quantity and Social Status: Associations with Internalizing Disorders in  
Victimized Children**

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### **Abstract**

Bullying is a common problem in schools, affecting many children world-wide. Victims of bullying are more likely to experience internalizing problems, which can persist into adulthood. Friendship quantity has been linked to better well-being in adolescence. However, victimized children often have fewer friends, and their friends tend to have a lower social status, which may limit the protective benefits of these relationships. The current study investigates the effect of friendship quantity and social status of friends on internalizing symptoms in children who are victimized. Data of a subsample of regularly victimized children ( $n = 1090$ ,  $M_{\text{age}} = 9.87$  years) from a big nationwide study in the Netherlands were used to evaluate whether the presence of friends, the number of friends, and the social status of friends were related to depressive and social anxiety symptoms. Results show that both friendship quantity and friends' social status are not significantly associated with depressive and social anxiety symptoms. Several possible explanations for these null findings are discussed, but further research is necessary to clarify these findings and explore other aspects of friendships that may influence internalizing symptoms in victimized children.

### **Samenvatting**

Pesten is een veelvoorkomend probleem en raakt veel kinderen over de hele wereld. Slachtoffers ervaren vaak internaliserende problemen, die zelfs tot in de volwassenheid kunnen aanhouden. Er is een link tussen het aantal vriendschappen en welzijn in de adolescentie. Kinderen die slachtoffer zijn van pesten hebben echter vaak minder vrienden, en hun vrienden hebben doorgaans een lagere sociale status, wat de voordelen van deze link kan beperken. De huidige studie onderzoekt het effect van de hoeveelheid vriendschappen en de sociale status van vrienden op internaliserende symptomen in kinderen die slachtoffer zijn van pesten. Data van een steekproef van kinderen die regelmatig worden gepest ( $n = 1090$ ,  $M_{\text{leeftijd}} = 9.87$  jaar) van een grootschalige studie in Nederland zijn gebruikt om te onderzoeken of de aanwezigheid van vrienden, het aantal vrienden en de sociale status van vrienden verband hielden met depressieve en sociale angstklachten. Uit de resultaten blijkt dat zowel de kwantiteit van vriendschappen als de sociale status van vrienden niet significant gerelateerd zijn aan depressieve en sociale angstklachten. Verschillende mogelijke verklaringen voor deze nulbevindingen worden besproken, maar verder onderzoek is nodig om deze resultaten te verduidelijken en andere aspecten van vriendschappen te verkennen die van invloed kunnen zijn op internaliserende problemen bij kinderen die slachtoffer zijn van pesten.

## **Friendship Quantity and Social Status: Associations with Internalizing Disorders in Victimized Children**

Bullying in schools is a big problem, affecting many children across the world (UNESCO, 2019). One extensive meta-analysis reported that 36% of children are victims of bullying (Modecki et al., 2014). Another study based on world-wide data found a similar percentage, indicating that 32% of children were bullied at least once a month (UNESCO, 2019). More recent research from the Health Behavior in School-aged Children (HBSC) study found that 11% of children in Europe, Canada and central-Asia are being bullied at least two or three times a month (Cosma et al., 2024). Although these percentages vary, they do show the scope of the problem.

Bullying victimization is commonly defined as the exposure to intentional and repeated harmful behaviors, involving a power imbalance between the perpetrator and the victim (Olweus, 1993; Olweus, 1994). Victimization has been linked to a variation of adverse psychological outcomes, including internalizing problems such as anxiety, depression, self-harm, and suicidal ideation and behavior (Christina et al., 2021; Moore et al., 2017). These relationships are bidirectional, indicating that internalizing problems both precede and follow bullying victimization. Victimization can also lead to social withdrawal, feelings of loneliness and a decline in academic performances (Almeida et al., 2021; Matthews et al., 2022; Nakamoto & Schwartz, 2010).

Importantly, the consequences of bullying do not always end when the bullying stops. Internalizing problems are not only immediate outcomes but can persist into adulthood. Longitudinal research has demonstrated robust and lasting effects of childhood victimization on mental health, including depression, anxiety disorders, and continued self-harming behaviors later in life (e.g., Bowes et al., 2015; Copeland et al., 2013; Kretschmer et al., 2025; Leroya et al., 2015; Stapinski et al., 2014). These findings highlight the serious and long-lasting impact that being a victim of bullying can have on psychological development and emphasize the need for greater insight into protective factors that can buffer against these negative effects.

Although victimization is generally associated with negative psychological outcomes, the emergence of psychological problems varies between victims (Reijntjes et al., 2010). Certain factors have been identified as potentially protective against the adverse effects of bullying victimization, such as higher self-esteem, lower levels of social alienation, reduced parental conflict, and supportive peer relationships (Sapouna & Wolke, 2013). The aim of the current study is to examine the effect of some of these factors, namely friendships quantity and social status of friends. Forming strong friendships is an important developmental task for

youth (e.g., Berndt, 2002, Hartup, 1996, Rubin et al., 1998, Vitaro et al., 2009). The effect of friendship quantity on psychological outcomes has been studied widely (Schacter et al., 2021). Friendship quantity refers to the number of friends someone has or the mere presence or absence of friends. Higher friendship quantity has been linked to better well-being in adolescence (Schwartz-Mette et al., 2020; Waldrup et al., 2008; Wentzel et al., 2004). Therefore, it can be expected that friends can function as a buffer for the adverse effects of victimization. However, the evidence on the protective effect of friendships on mental health in victimized children is inconclusive (Schacter et al., 2021). Out of eight studies assessing the effect of friendship quantity in this meta-analysis, two studies found that friendships function as a buffer. Other studies either found no effect or reported mixed findings, for example, that having more close friendships serves as a buffer only for boys and not for girls (Erath et al., 2010) or only in schools with less prosocial norms (Schacter & Juvonen, 2018).

These variations in findings may be due to multiple reasons. One characteristic that the studies reporting a positive effect of friendship quantity on the relation between bullying victimization and mental health have in common, is that they focused on early adolescents. Schacter et al. (2021) suggest that the mere presence of a friend may be sufficient for younger children, but not for older children, since older children place greater emphasis on the quality of the friendship. Another explanation for the differences in findings is that some researchers have looked at the sheer quantity of friends (e.g. Uusitalo-Malmivaara, 2013), while the difference between having at least one friend and having zero friends might be more important. Furthermore, it was suggested that fluctuations in friendships may influence the results, since children often lose and gain friends (Lessard & Juvonen, 2018). If friendship quantity is measured at one point in time and mental health outcomes at a later point, the child might have already lost or gained new friends. Therefore, the number of friends might not be accurate anymore. To account for this, friendship quantity and psychological outcomes need to be assessed simultaneously.

Simply having friends might not be sufficient for friendships to buffer against the negative outcomes of victimization. Specific characteristics of the friendship or the friend may also be important (Alsarrani et al., 2022; Schacter et al., 2021). One of these characteristics is social status, which can be measured in multiple ways (Lease et al., 2002). This includes peer acceptance (asking children who they like the most) peer rejection (asking children who they like the least), social preference (assessed by calculating the difference between the amount of likes and dislikes (Van den Berg et al., 2020), and perceived popularity (asking children who they see as most popular) as described by Wiertsema et al. (2023). In the current study, a child's

social status is assessed by asking children who in their class they like the most, as this is a widely used method for assessing social status in the classroom (Parker et al., 2006). Children who are victimized by their peers tend to have friends who also have a lower social status (Scholte et al., 2009), which may interfere with the protective effect of friendships on psychological outcomes. On the one hand, having friends with a low social status may have some benefits over having no friends at all. These friends may provide understanding and support. Stress-buffer theories of social support state that friends are beneficial because they can help with adaptive appraisal and coping in a stressful situation or time (Cohen & Wills, 1985). Especially when friends are experiencing the same things, this could help ease the distress of a victimized child (Schacter & Juvonen, 2019). On the other hand, friends who are socially vulnerable may not be able to provide adequate support and discuss problems or negative thoughts in such a way that it becomes harmful instead of helpful (Rose et al., 2007). Some research has shown that emotional support from friends who are also victimized can amplify internalizing symptoms in victimized girls (Schacter & Juvonen, 2020). Research on the effect of the social status of friends is inconclusive and most research focused on children who have friends who also experienced victimization, instead of general social status. This highlights the importance of the current study, which focuses on the general social status of the friends of victimized children.

The current study aims to assess if having friends functions as a protective factor for the adverse outcomes of victimization on psychological outcomes. Specifically, we will examine whether children who are victimized and have at least one friend score lower on depressive and social anxiety symptoms than children who are victimized and do not have any friends. Furthermore, we want to assess whether having more friends has an additional benefit. Therefore, we will examine whether children who are victimized and have more friends score lower on depressive and social anxiety symptoms than children who are victimized and have fewer friends. Lastly, we want to examine whether the social status of friends has an influence on the psychological outcomes of victimized children. Specifically, we will examine whether victimized children who have friends with a higher social status in the classroom score lower on depressive and social anxiety symptoms than victimized children who have friends who have a lower social status in the classroom.

This study builds upon existing knowledge in several ways. First of all, it seeks to determine whether the method of measuring friendship quantity influences the results. By examining both the mere presence of friends and the number of friends, we aim to explore the impact of different approaches to measuring friendship quantity. Additionally, by assessing

friendship quantity and psychological outcomes simultaneously, we aim to eliminate the potential impact of changes in friendships over the year. Lastly, the current study focuses on the social status of the friends of victimized children. Although some research has assessed the impact of having a friend who is also victimized, little research has focused on the impact of the general social status of the friends of victimized children.

## **Methods**

### **Design**

The data for this study comes from a nationwide study on the effectiveness of anti-bullying programs in the Netherlands (De Castro et al., 2018). Although the original study employed a longitudinal design with data collected at two time points, only data from T1 were used for the current analysis. This decision was based on the research questions, which focus on examining the relationships between variables at a single point in time. Consequently, a cross-sectional correlational design was applied.

### **Participants**

The original study contained data of 9316 children. Participants in the current study were a subsample of this and consisted of children who indicated that they were regularly victimized (at least two or three times a month). This subsample consisted of 1090 children from 318 classrooms and 126 schools (grades 3-6) across the Netherlands. Children were on average 9.87 years old ( $SD_{age} = 1.34$ ). There were slightly less girls than boys (48% female). Most children in the sample were native Dutch (62%).

### **Procedure**

The researchers recruited schools via recruitment letters and follow-up phone calls. All schools that did not yet use an anti-bullying program which was considered ‘promising’ according to the Netherlands Youth Institute could participate in the study. The children filled in a questionnaire two times during the school year, in September or October 2016 (T1) and in June or July 2017 (T2).

Schools, teachers and parents were asked to give informed consent. Children were asked to give informed assent and were told that the data would be pseudonymized. They were also made aware that they could stop at any time and that the data would be handled confidentially. Children filled in the questionnaire online during school hours. The questionnaire took about 45 minutes and videos were used to inform children about the study. Children could ask questions to the teacher while filling in the questionnaire.

### **Measures**

#### ***Victimization***

Victimization was assessed using the Dutch version of the revised Olweus Bully/Victim questionnaire (Olweus, 1996; Veenstra et al., 2020). Children had to indicate how often they had been victimized since the beginning of the school year. Answer options were (1: it did not happen, 2: once or twice, 3: two or three times a month, 4: about once a week, 5: several times a week). Children who indicated that they were victimized at least two or three times a month were labeled as ‘victims of bullying’ and children who indicated to be victimized less often or not at all were considered ‘non victims’ (Solberg & Olweus, 2003).

### ***Internalizing disorders***

Depressive symptoms were measured using nine items of the Dutch version (Veenstra et al., 2020) of the Major Depressive Disorder Scale (e.g. I don't really like anything anymore). Children could answer on a scale from 1 (never) to 4 (always). A scale was formed by computing the average score, with a higher score indicating more depressive symptoms. The internal consistency of the scale was good (Cronbach's  $\alpha = .80$ ).

Social anxiety was measured via seven items of the Dutch version of the Social Phobia Screening Questionnaire (Furmark et al., 1999). Children responded to items such as ‘I find it scary to talk to someone I don't know’ using a scale from 1 (never) to 5 (always). The scores were averaged and a higher score indicated more social anxiety symptoms. The internal consistency of the scale was acceptable ( $\alpha = .77$ ).

### ***Friendship Quantity***

Presence of friends was measured by friendship nominations. Children were asked for the names of their best friends within their own classroom. Only if both children nominated each other the person was considered a friend. If someone had at least one reciprocal friendship, the person was considered to have friends (value = 1). If someone did not have any reciprocal friendships, the person was considered to not have any friends (value = 0).

Number of friends was measured in the same way as presence of friends. However, instead of just indicating if someone had a friend, this variable shows the number of friends.

### ***Social status of friends***

Social status of friends was determined by how well the friends of a child were liked. Participants nominated an unlimited number of children in their class who they liked the most. Proportion scores were given by summing the received nominations and dividing them by the number of nominating classmates. To determine the social status of the friends of a child, the proportion scores of the friends were summed and then averaged by dividing by the total number of friends. A higher proportion score thus indicated that the child had friends with higher social status.

### ***Control variables***

We included the social status of the victimized child as a control variable because it may be a potential confounder. It may influence both the likelihood of being victimized and the negative outcomes associated with victimization. A lower social status can independently contribute to negative psychological effects, regardless of the influence of friends. By controlling for this variable, we prevent the effect of friends' social status from being confounded by the child's own status, so we know its unique contribution. The social status of the victimized child was assessed in the same way as the social status of the friends of a child. Participants nominated classmates they liked, and proportion scores were calculated based on the number of received nominations relative to the total number of nominating classmates.

Age and sex assigned at birth were also included as control variables, as previous research suggests that findings may vary between younger and older children and between boys and girls.

### **Analyses**

First, descriptive statistics and bivariate correlations were computed for all variables. Given the hierarchical structure of the data, we assessed whether multilevel analysis would be more appropriate than linear regression. Intraclass Correlation Coefficients (ICCs) were calculated for depressive and social anxiety symptoms at both the class and school levels. The ICC shows the proportion of variance that can be attributed to differences between schools and classes. For depressive symptoms the ICC at the school-level was .016, which indicates that 1.6% of the variance in depressive symptoms is explained by differences between schools. The ICC at the class-level was .000, which means that no substantial variance can be explained by differences between classes within schools. For social anxiety symptoms the ICC at the school-level was .003, which indicates that 0.3% of the variance in social anxiety symptoms is explained by differences between schools. Again, the ICC at the class-level was .000, indicating that no substantial variance can be explained by differences between classes within schools. One explanation for the almost zero variance at the class level, may be the small number of victims per class. This may have made it difficult to detect variance at the class level.

Together, these results suggest that for depressive symptoms 98.4% of the variance lies at the individual level and for social anxiety symptoms 99.7% of the variance lies at the individual level. So, nearly all variability in depressive and social anxiety symptoms is due to individual differences rather than class- or school-level factors. Multilevel models have the assumption that there are substantial differences between groups that need to be accounted for



(Hox, 1998). In this case, the lack of significant group-level variance violates this assumption. Therefore, a simple regression model is a better choice for this data. Moreover, by using simple linear regression models we avoid unnecessary complexity and provide the reader with clear, interpretable results.

Before performing the regression analysis, the data was checked for violations of the assumptions of this analysis (see Appendix, Figures A1-A6). The assumptions of linearity and homoscedasticity were violated for both depressive symptoms and social anxiety symptoms. Although several data transformation techniques were attempted, they did not improve the linearity or homoscedasticity (see Appendix, Figures A7 and A8). As a result, the original data were used for analysis, and the findings should be interpreted with caution.

For the outcome variable depressive symptoms several analyses were carried out in IBM SPSS Statistics (version 28). In the first model, presence of friends and number of friends were added as independent variables. In the second model, number of friends and social status of friends were added as independent variables. A combined model including all three variables was not possible, as children without friends did not have data on the social status of friends. Both models were also tested using social anxiety symptoms as the dependent variable instead of depressive symptoms. In all analyses gender, age and social status of the victimized child were added as control variables. Results are considered significant at the 5% level.

## Results

### Descriptive results

Table 1 presents the descriptive statistics of the study variables. Overall, the sample scored below the scale midpoint on depressive symptoms ( $M = 1.91$ ,  $SD = 0.57$ ) and social anxiety symptoms ( $M = 2.10$ ,  $SD = 0.80$ ), indicating that, on average, participants experienced such symptoms infrequently. For depressive symptoms responses fell just below the "sometimes" category, while for social anxiety symptoms, they were slightly above the "almost never" category. The standard deviations suggest some variability in the levels of depressive and social anxiety symptoms across participants. Table 2 presents the bivariate correlations among the different variables. None of the main predictors in the study were significantly related to depressive or social anxiety symptoms. The only significant correlation with a dependent variable was found between sex and social anxiety symptoms ( $r = -.25$ ,  $p < .001$ ), indicating that girls generally report higher levels of social anxiety than boys. Social anxiety symptoms was also significantly related to depressive symptoms ( $r = .43$ ,  $p < .001$ ).

Age and sex were also associated with some of the variables. Age was negatively associated with social status of the victim ( $r = -.09$ ,  $p = .004$ ), presence of friends ( $r = -.13$ ,  $p$

$< .001$ ), and number of friends ( $r = -.16, p < .001$ ). This shows that older victimized children tend to have a lower social status, are less likely to have friends and, when they do, they tend to have fewer friends than younger victimized children. Sex was negatively related to social status of victim and social status of friends, indicating that victimized boys tend to have a lower social status themselves and have friends who have a lower social status than victimized girls.

**Table 1**

*Descriptive Statistics of the Main Variables in the Study*

Variable	N	Mean	SD	Minimum	Maximum
Depressive symptoms	1089	1.91	0.57	1	4
Social anxiety symptoms	1090	2.10	0.80	1	5
Presence of friends	1090	.83	.37	0	1
Number of friends	1090	2.27	1.90	0	11
Social status of friends	909	.34	.12	.04	.79
Social status of victim	1090	.26	.15	0	.83
Sex (1=boy)	1090	.52	.5	0	1
Age	1090	9.87	1.34	6.85	13.55

**Table 2**

*Pearson Correlations*

	1	2	3	4	5	6	7
1. Depressive symptoms	-						
2. Social anxiety symptoms	.43*	-					
3. Presence of friends	-.04	-.02	-				
4. Number of friends	-.05	-.02	.53*	-			
5. Social status of friends	-.03	.05	-	.13*	-		
6. Social status of victim	-.06	.01	.33*	.48*	.51*	-	
7. Sex (1=boy)	-.07	-.25*	-.05	-.05	-.10*	-.12*	-
8. Age	-.07	-.02	-.13*	-.16*	-.02	-.09*	.01

*Note.* No correlation could be calculated between presence of friends and social status of friends, as social status of friends cannot be determined for children without any friends.

\*  $p < .01$

Some significant correlations were found between the other variables. Number of friends was positively related to social status of friends, meaning that victims with more friends tend to have friends with a higher social status compared to victims with fewer friends. Moreover, social status of the victim was positively related to presence of friends, number of friends, and social status of friends. This indicates that victims with a higher social status are more likely to have friends and, when they do, they tend to have more friends than victims with a lower social status. Furthermore, victims with a higher social status also tend to have friends with a higher social status.

## **Main analyses**

### ***Depressive symptoms***

The first two research questions assessed whether presence of friends and number of friends significantly predicted depressive symptoms in victimized children. A multiple regression analysis (Table 3) showed that the overall model was significant  $F(5, 1083) = 3.72$ ,  $p = .002$ . The model explained a very small portion of the variance in depressive symptoms (adjusted  $R^2 = .01$ ). However, presence of friends and number of friends as individual predictors were not significant. Specifically, having at least one friend was not significantly associated with a lower level of depressive symptoms, nor was having additional friends. Among the control variables, age ( $B = -.04$ ,  $t(1083) = -2.77$ ,  $p = .006$ ) and sex ( $B = -.09$ ,  $t(1083) = -2.52$ ,  $p = .012$ ) were significantly associated with depressive symptoms, indicating that younger victimized children and victimized girls score higher on depressive symptoms than older victimized children and victimized boys.

The second model (Table 3) answered the third research question about the social status of friends. The overall model was significant  $F(5, 902) = 2.53$ ,  $p = .027$ , but again it only explained a very small portion of the variance in depressive symptoms (adjusted  $R^2 = .01$ ). Social status of friends was not significantly associated with depressive symptoms. This shows that victimized children who have friends with a higher social status do not score significantly lower on depressive symptoms than victimized children who have friends with a lower social status. Moreover, findings indicate that victimized girls score higher on depressive symptoms than victimized boys ( $B = -.08$ ,  $t(902) = -2.22$ ,  $p = .027$ ).

### ***Social anxiety symptoms***

With regard to social anxiety symptoms, the first model (Table 4) with presence of friends and number of friends as predictors was significant  $F(5, 1084) = 14.55$ ,  $p < .001$  and explained a small portion of the variance in social anxiety symptoms (adjusted  $R^2 = .06$ ). However, again no evidence was found for an individual protective effect of either the presence

**Table 3***Regression Analyses Models 1 & 2 for Predicting Depressive Symptoms.*

	Model 1 ( <i>n</i> = 1089)					Model 2 ( <i>n</i> = 908)				
	B	SE	95% CI		<i>p</i>	B	SE	95% CI		<i>p</i>
			<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>	
Presence of friends	-.040	.054	-.147	.067	.461					
Number of friends	-.007	.012	-.029	.016	.569	-.004	.012	-.027	.019	.737
Social status of friends						.009	.174	-.332	.350	.959
Social status of victim	-.206	.129	-.458	.047	.110	-.265	.161	-.580	.051	.100
Sex (1=boy)	-.086	.034	-.154	-.019	.012	-.083	.037	-.156	-.009	.027
Age	-.036	.013	-.061	-.010	.006	-.028	.014	-.056	.000	.052
Adjusted <i>R</i> <sup>2</sup>	.012					.008				
<i>F</i>	3.72				.002	2.53				.027

**Table 4***Regression Analysis Models 1 & 2 for Predicting Social Anxiety Symptoms*

	Model 1 ( <i>n</i> = 1090)					Model 2 ( <i>n</i> = 909)				
	B	SE	95% CI		<i>p</i>	B	SE	95% CI		<i>p</i>
			<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>	
Presence of friends	-.056	.075	-.204	.092	.460					
Number of friends	-.010	.016	-.041	.021	.533	-.006	.016	-.037	.025	.707
Social status of friends						.255	.236	-.208	.717	.280
Social status of victim	-.013	.178	-.362	.337	.942	-.158	.218	-.585	.269	.468
Sex (1=boy)	-.400	.048	-.493	-.307	<.001	-.378	.051	-.477	-.278	<.001
Age	-.011	.018	-.046	.024	.538	.003	.019	-.035	.041	.864
Adjusted <i>R</i> <sup>2</sup>	.059					.056				
<i>F</i>	14.55				<.001	11.71				<.001

or number of friends on social anxiety symptoms. This indicates that victimized children with at least one friend, or those with more friends, do not report significantly fewer social anxiety symptoms than those without friends or with fewer friends. Findings indicate that victimized girls score higher on social anxiety symptoms than victimized boys ( $B = -.40$ ,  $t(1084) = -8.42$ ,  $p < .001$ ).

The last model (Table 4) with the social status of friends of victimized children was significant  $F(5, 903) = 11.71$ ,  $p < .001$ , and explained a small portion of the variance in social anxiety symptoms (adjusted  $R^2 = .06$ ). The social status of friends was not significantly associated with social anxiety symptoms. So, victimized children with higher-status friends did not report significantly fewer social anxiety symptoms than those with lower-status friends. Again, victimized girls scored higher on social anxiety symptoms than victimized boys ( $B = .38$ ,  $t(903) = 7.47$ ,  $p < .001$ ).

### Discussion

The aim of the current study was to examine the relationship between friendships and internalizing symptoms in victimized children. Specifically, we looked at the quantity of friendships and the social status of friends. Our first research question examined whether having at least one friend serves as a protective factor against depressive and social anxiety symptoms in victimized children. Our findings did not indicate that this is the case, suggesting that, overall, the presence of a friend does not buffer victimized children from depressive or social anxiety symptoms. Our second research question examined whether having more than one friend has as an additional benefit. We examined whether victimized children with more friends score lower on depressive and social anxiety symptoms compared to children who have fewer friends. We did not find any evidence for this, indicating that having more friends does not function as a buffer against these internalizing symptoms. Lastly, we investigated whether there is an association between the social status of friends and levels of depressive and social anxiety symptoms. Specifically, we examined whether victimized children who have friends with a higher social status score lower on these symptoms than victimized children who have friends with a lower social status. Again, we did not find any support for this, indicating that the social status of friends is not related to depressive or social anxiety symptoms in victimized children.

Our finding that the number of friendships does not predict depressive or social anxiety symptoms aligns with some previous studies, but contradicts others (Schacter et al., 2021). One possible explanation for these inconsistent findings is the role of age. Specifically, previous research focusing on younger adolescents found evidence that the quantity of friendships serves

as a protective factor against psychological symptoms, while research focusing on older adolescents did not (Schacter et al., 2021). However, our research focused on even younger children, who have not reached adolescence yet. Developmentally speaking, while friendships gain increasing importance during adolescence, in pre-adolescence the role of parents tends to be more central, particularly in helping children manage stress (Gunnar & Hostinar, 2015). This may explain why friendships do not yet serve as a protective buffer against depressive and social anxiety symptoms in victimized children at this age.

Previous researchers suggested that having at least one friend may be more important than having many friendships compared to fewer friendships (Schacter et al., 2021). Therefore, in this study we assessed both the number of friendships and the presence of at least one friend. We did not find that having at least one friend is more important than having a greater number of friendships compared to fewer friendships. One possible explanation is that we only assessed friendships within the classroom, so we do not know the total number of friends a participant had. Another possible explanation is that we counted only reciprocal friendships when measuring the number of friendships, whereas the perception of having a friend, even if they do not see you as a friend, may be more important in protecting against internalizing symptoms. One study showed that only around 53% of friendship nominations are reciprocated, indicating that a significant proportion of friendships are unidirectional, so recognized as such by one individual but not by the other (Qin et al., 2023). For younger children, whose friendships are primarily centered around shared activities and play rather than qualitative aspects such as trust and intimacy (Berndt, 2004; Hartup & Stevens, 1997), the reciprocal nature of the relationship may be of lesser importance, as long as they feel like they have someone to play with.

Furthermore, our finding that the social status of friends does not predict depressive or social anxiety symptoms addresses a relatively unexplored area, as no studies have directly examined this association. Given the limited prior research, our investigation was exploratory in nature. The results suggest that having friends who are more well-liked by peers does not offer protection against depressive or social anxiety symptoms. Multiple explanations may be given for this finding. It is possible that the social status of the friend is indeed not important enough to influence feelings of depression and social anxiety. This can be because both high-status friends and low status friends may protect against depressive and social anxiety symptoms in a different way. High status friends may protect against these symptoms via their better social skills, while friends with a lower social status may offer support by going through the same things as their victimized friends and can therefore offer understanding and support in a way that non-victimized friends cannot (Schacter & Juvonen, 2019). Furthermore, other

aspects of friendships such as trust and support may be more important than social status and may be offered by both high-status and low-status friendships. Research has been done on qualitative aspects of friendships as well, and while results are mixed, it is possible that friendships characterized by greater trust and closeness are more likely to protect against the negative consequences of victimization (Schacter et al., 2021).

The current study has several strengths. Although focusing on reciprocity may have influenced the results, examining only reciprocal friendships is an important strength of this study. By focusing on mutual friendships, the study ensured that the data reflects actual friendships instead of one-sided friendships, which are emotionally less meaningful. This way the possibility of nonsignificant effects due to relationships that were not true mutual friendships was excluded. Moreover, reciprocal friendships are generally associated with higher friendship quality, therefore they are more likely to protect against the negative outcomes of victimization than one-sided friendships (Maunder & Monks, 2019). Another strength of the study is the use of peer nominations to assess friendships and social status in the classroom. This approach ensured that not all data were based on self-reports, which can be limited by factors such as social desirability bias or lack of self-awareness (Podsakoff et al., 2003). Instead, peer nominations reflect the real social dynamics in the classroom because they show children's actual preferences and relationships.

### **Limitations and future directions**

The study has several limitations. Firstly, it only focused on friendship quantity and social status of friends, but not on friendships quality, which is also an important aspect of friendships. To better understand the potential role of friendships in relation to internalizing symptoms among victimized children, it is important to consider all aspects of friendships. Previous research has already been done on this topic, however results were mixed and no consensus has been reached. Therefore, future research should focus on why studies yield different results and examine different aspects of friendship quality to identify which are more strongly associated with internalizing symptoms in victimized children than others.

Furthermore, the study assessed only friendships within the classroom, so the actual number of friends a child has remains unknown. It is still possible that the number of friendships or the presence or absence of friendships is related to internalizing symptoms in victimized children, but that by limiting the analysis to friendships within the classroom the study gives an incomplete or potentially misleading picture. Future research should consider exploring friendships both inside and outside the classroom.

In this study social status was measured via peer acceptance, which means asking children who in their class they liked the most. Using another way to measure social status, such as peer rejection, social preference or perceived popularity could potentially lead to different results. Nonetheless, the findings showed an association in the expected direction: victimized children with a higher social status were more likely to have friends, have a greater number of friends and have friends with a higher social status. This suggests that peer acceptance is a meaningful and appropriate indicator of social status in this context.

Lastly, the cross-sectional design of this study limits the ability to draw causal conclusions. However, since no significant associations were found between friendship quantity and social status of friends on the one hand and depressive and social anxiety symptoms on the other hand, drawing conclusions about causality is not only inappropriate due to the study design but also because a basic precondition for establishing causality, namely a significant association, was not met. Future longitudinal research is needed to explore the potential direction of the effect if an association is present.

Taken together, our study contributes to the inconsistent literature on the role of friendships in buffering against internalizing symptoms among victimized children. Despite previous research efforts, there is still no clear consensus on whether friendships serve as a protective factor. While some possible explanations have been discussed above, placing these findings in the broader context of mixed results in the literature shows us that other factors may play a more significant role in protecting victimized children from developing internalizing symptoms. Therefore, in addition to further exploring specific aspects of friendships and the contexts in which they may offer protection, future research should also investigate other factors that could buffer against the negative effects of victimization. Better understanding these influences will help us make clearer and more effective recommendations to support victimized youth.



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## Appendix

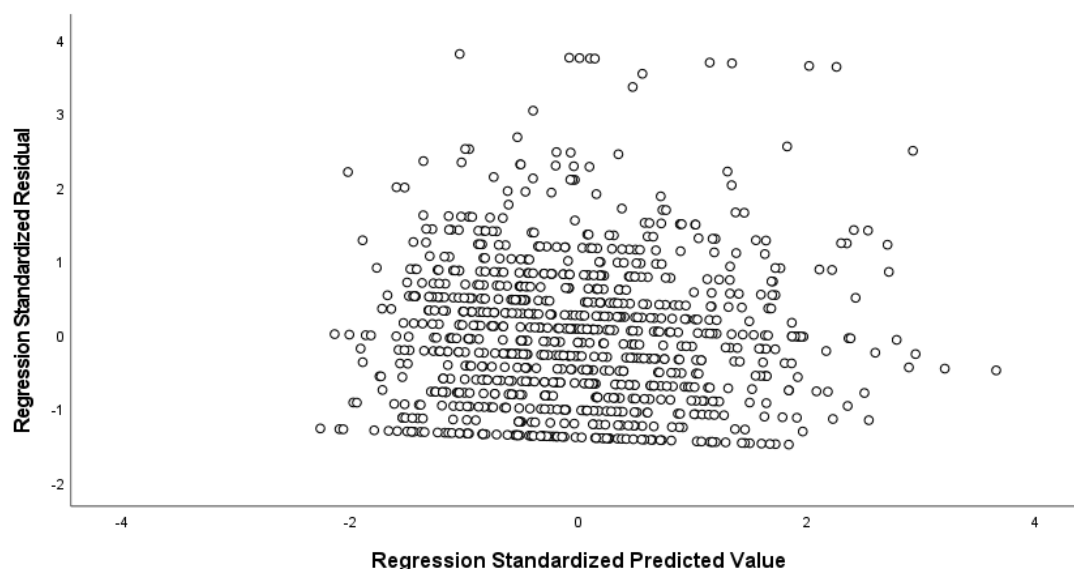
### Assumptions Check

For both depressive and social anxiety symptoms the assumptions of linearity and homoscedasticity were violated (see Figures A1 & A4). No major violations were found for the normal distribution of the residuals of both variables (see Figures A2, A3, A5 & A6). Multicollinearity was tested by computing the Variance Inflation Factor. The highest value of VIF that was found was 1.65, which means that the assumption of multicollinearity was not violated.

Several data transformation techniques were attempted to improve the linearity and homoscedasticity of the data. The two continuous predictors were individually plotted with depressive and social anxiety symptoms, to check which relationships were non-linear. The relationships between these variables were very weak. To check whether there may be a different non-linear relationship between the variables, a quadratic term was added to the regression. This was done for both predictor variables: number of friends and social status of friends. The linearity and homoscedasticity did not improve (Figure A7 & A8). Additionally, the quadratic terms were non-significant, and the model fit did not improve, with adjusted  $R^2$  values of .054 for social anxiety symptoms and .006 for depressive symptoms.

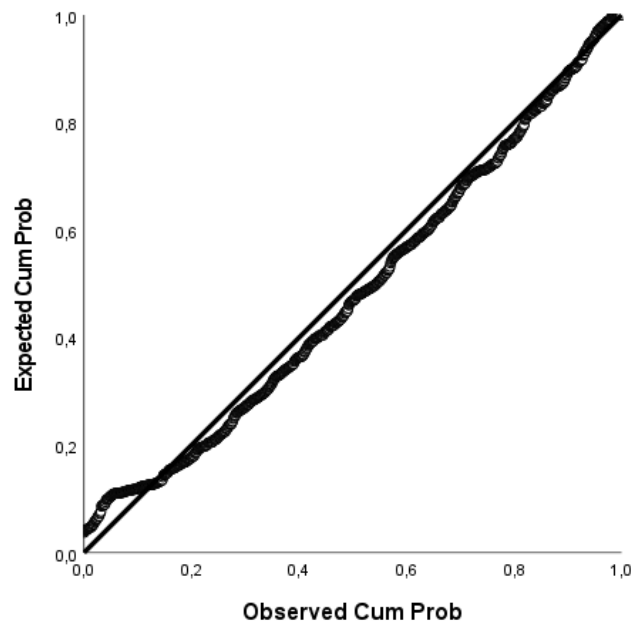
**Figure A1**

*Scatterplot of the Predicted Values and Residuals with Social Anxiety Symptoms as Dependent Variable*

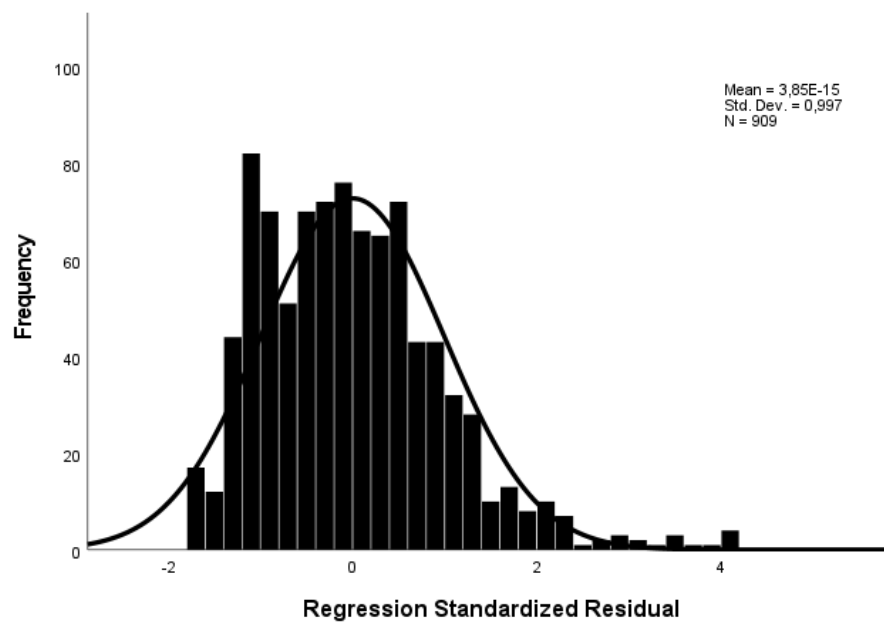


**Figure A2**

*Normal P-P Plot of Regression Standardized Residuals with Social Anxiety Symptoms as Dependent Variable*

**Figure A3**

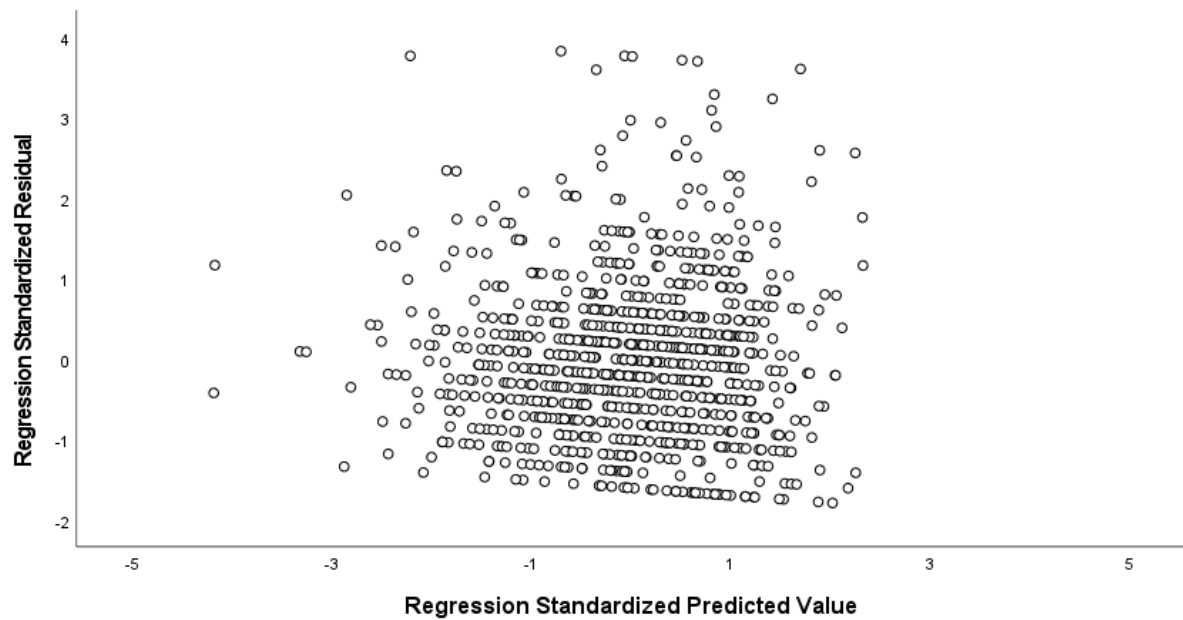
*Histogram of the Distribution of the Residuals of Social Anxiety Symptoms*



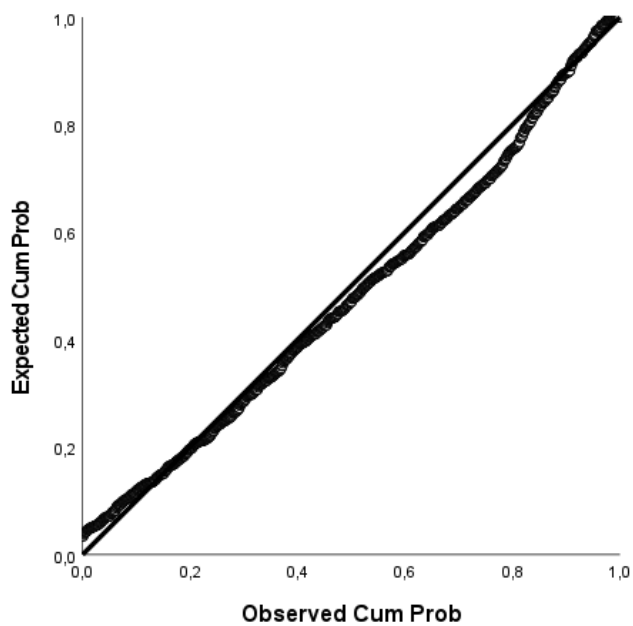


**Figure A4**

*Scatterplot of the Predicted Values and Residuals with Depressive Symptoms as Dependent Variable*

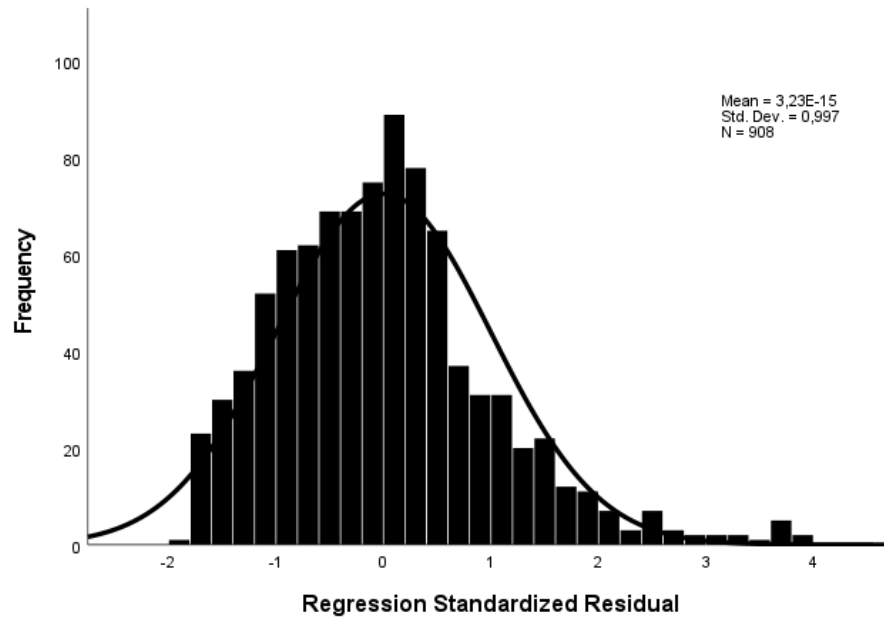
**Figure A5**

*Normal P-P Plot of Regression Standardized Residuals with Depressive Symptoms as Dependent Variable*

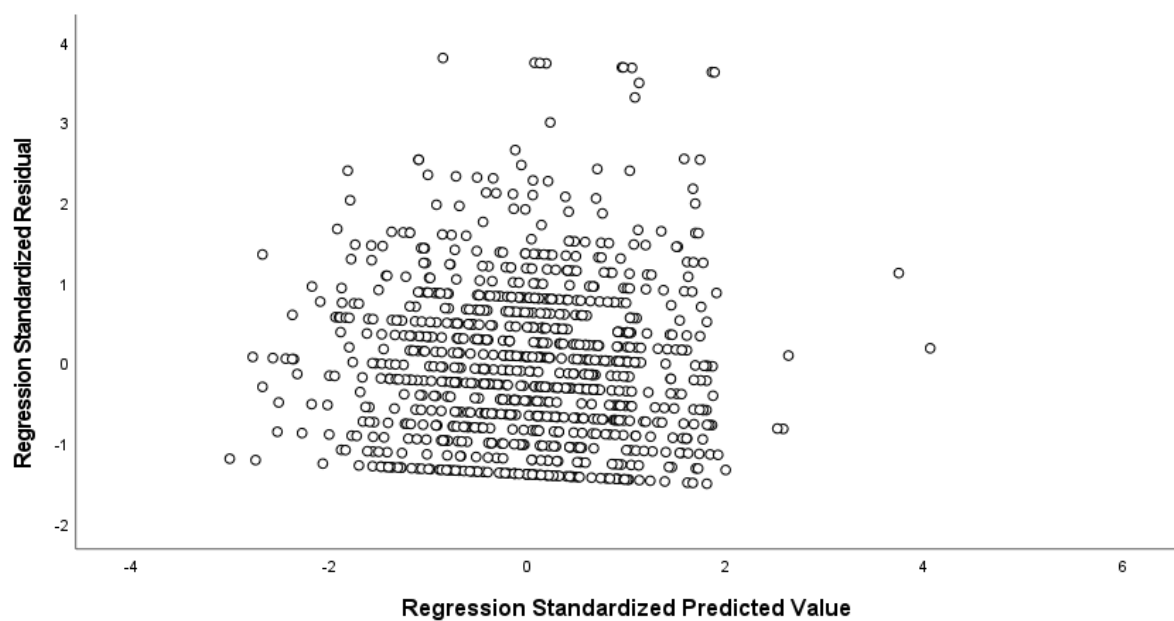


**Figure A6**

*Histogram of the Distribution of the Residuals of Depressive Symptoms*

**Figure A7**

*Scatterplot of the Predicted Values and Residuals Including the Exponential Transformations of the Predictors with Social Anxiety Symptoms as Dependent Variable*



**Figure A8**

*Scatterplot of the Predicted Values and Residuals Including the Exponential Transformations of the Predictors with Depressive Symptoms as Dependent Variable*

