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Bullying Victimization and Out-of-Home Care: The Role of Personal and Social Resources?

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Abstract

Previous studies have indicated that youth in care may represent a high-risk group for bullying victimization. So far, research has focused primarily on problem behavior rather than on potential personal or social resources of youth in care, particularly in the context of bullying victimization. Therefore, the purpose of this study was to examine whether youth in care are more likely to experience bullying victimization. Furthermore, it was analyzed if personal and social resources were protective of bullying victimization and whether these associations were moderated by family placement while controlling for lifetime poly-victimization. An online survey was completed by $n = 119$ youth in care and $n = 110$ youth in biological families in Germany - with or without a social/biological caregiver. Overall, the results showed that youth in care were 7.41 times more likely to experience bullying victimization than youth in biological families. Personal and social resources did add to the explained variance of current bullying victimization beyond lifetime poly-victimization in the child's report. In particular, low levels of child-reported parental support and school integration were associated with more bullying victimization. These associations were not moderated by family placement, indicating similar effects for both, youth in care and youth in biological families.

Keywords Bullying victimization · Out-of-home care · Personal resources · Social resources · Poly-victimization

Theoretical Background

Bullying is defined as repeated aggressive behavior with the intention to hurt. Furthermore, there is an imbalance of power between the bully and the victim (Olweus, 1993). Bullying can include direct, relational, and cyberbullying (Wolke, 2019). Bullying victimization is a specific form of victimization that is very common among children and adolescents (Menesini & Salmivalli, 2017) as well as young adults (Brendgen & Poulin, 2018; Kowalski et al., 2018) and has repeatedly been found to have a severe (Hawker & Boulton, 2000) and persistent negative impact on mental health (Lereya et al., 2015, Takizawa et al., 2014). In Germany, the 2018 Health Behavior in School-aged Children (HBSC) study found a prevalence of 8% for bullying victimization among 11-, 13- and 15-year-olds (Fischer et al., 2020). Similarly, other studies found a prevalence of 9% for bullying victimization among German adolescents (Ossa et al., 2021). Recent international studies suggested that bullying victimization is very prevalent among youth in care, e.g., living in foster care, in an adoptive family, or in residential care (Lutman & Barter, 2017; Raaska et al., 2012; Vacca & Kramer-Vida, 2012) and that their risk for bullying victimization is higher compared to peers living with their biological families (Edwards & Batlemento, 2016). Even care leavers reported a high impact of previous bullying victimization (Kaasinen et al., 2023). In Germany, 207,000 children and adolescents were living either in foster care or in residential care in 2022 (Destatis, 2023). So far,

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however, little is known about bullying victimization of youth in care in Germany.

Takizawa et al. (2014) found, in general, a persistent negative association between childhood bullying victimization and mental health in adulthood, even after controlling for placement in a public institution or substitute care, as well as childhood adversities such as parental mental health, family conflict, physical abuse, and sexual abuse. Many youths in care have been exposed to maltreatment and abuse in the past. Furthermore, they have often experienced the cumulative effects of multiple types of victimization, a condition known as poly-victimization (Finkelhor et al., 2005, 2007) which is often found among youth in care (e.g., Ehrenberg et al., 2018; Segura et al., 2016). Lucas et al. (2016) found that several forms of abuse were associated with an increased risk of bullying victimization. They also showed that more severe abuse experiences were related to a higher risk of bullying victimization. Hong et al. (2012) posited several theories on the mechanisms between past victimization experiences and further victimization (e.g., bullying victimization), such as problems in emotion regulation, depression, anger, and social skills deficits, as well as problems in relationships with others (e.g., parents, peers, and teachers). Sterzing et al (2020) found that the risk of bullying victimization was increased in adolescent girls in care with higher levels of PTSD, while self-efficacy in the areas of anger regulation and interpersonal conflict resolution proved to be protective against bullying victimization in the same sample. These findings collectively suggest that child maltreatment can lead to a range of developmental challenges that may increase the vulnerability of the affected youths to subsequent victimization (e.g., bullying victimization). Research to date has mainly focused on a deficit-oriented approach with regard to youth in care (Miranda & Rodriguez, 2023). However, less is known about the role of personal and social resources in predicting bullying victimization among youth in care, which is important for the development of prevention and intervention programs that consider their higher vulnerability.

Personal and Social Resources in the Context of Bullying Victimization

Following a socio-ecological framework of bullying, not only individual but also family, as well as peer and school factors, are important in understanding bullying (Swearer & Espelage, 2004). Bullying victimization has been found to be negatively associated with a wide variety of important personal (e.g., self-esteem) and social resources (e.g., school integration). A meta-analysis by Hawker and Boulton (2000) identified a consistent association between bullying victimization and low self-esteem. Holt et al. (2014) found that low self-control was also associated with bullying victimization. Furthermore, Navarro et al. (2015) found that both victims of traditional bullying, as well as victims of combined traditional and cyberbullying, had lower self-efficacy than uninvolved peers. With regard to social resources, students' perceptions of a positive school climate are negatively associated with bullying victimization (Khoury-Kassabri et al., 2004). Victims of bullying reported less peer support than uninvolved peers, but no differences were found for maternal social support (Holt & Espelage, 2007). In contrast, Díaz Herráiz and Bartolomé Gutiérrez (2016) found that both low peer and parental support were associated with bullying victimization. A meta-analysis by Lereya et al. (2013) showed that negative parenting behavior was related to bullying victimization at school. Overall, lower personal and social resources seem to be associated with an increased risk for bullying victimization. However, it is still unclear if personal and social resources that have been shown to be protective against bullying victimization in general populations are also relevant for youth in care.

Out-of-Home Care

Rutter (1990) pointed out that resilience and being at risk are not constant characteristics of an individual but that they can change depending on circumstances. On the one hand, Turney and Wildeman (2017) found that youth placed in foster care or adopted from foster care were not only more likely to report experiences of various forms of victimization but also other forms of adverse events like parental divorce, death, incarceration, or mental illness of a household member, implying that youth in care are not only at risk due to previous victimization experiences, but may also be exposed to further psychosocial risk factors. For example, several studies have shown that youth in care have an increased risk for internalizing and externalizing problems (Fernandez, 2008; Lohaus et al., 2017, 2018). Furthermore, frequent placement changes can lead to difficulties in forming stable relationships and attachments, as well as interrupted educational paths, further complicating their social integration. This disruption makes it harder for these young people to connect with peers and gain acceptance in social groups, consequently raising the risk of bullying (Stanley et al., 2005; Vacca & Kramer-Vida, 2012). The experience of out-of-home care itself may contribute to stigmatization (Blythe et al., 2012; Farmer et al., 2013; Rogers, 2017). Research by Miranda and Rodriguez (2023) indicates that youth in care often suffer victimization due to factors like ethnicity, religion, gender expression, sexual orientation, disability, and appearance. Additionally, Benbenishty et al. (2018) observed that these youths are more prone to peer victimization and harassment based on discrimination than their peers not in foster care.

On the other hand, out-of-home-care might also have a positive impact on psychosocial development as well as on the development of resources. For example, Luke and Coyne (2008) found that foster parents can have a positive impact on the self-esteem of youth in care through general and domain-specific support (e.g., scholastic support, good behavioral conduct). A meta-analysis by Juffer and van IJzendoorn (2007) found that adoptees and non-adoptees did not differ in self-esteem, considering international, domestic, and transracial adoptions.

Many children in out-of-home care are found to be resilient, with child characteristics being particularly important (Bell et al., 2013). As there has been little research on the availability of personal and social resources as factors preventing bullying victimization for youth in care so far, this study aims at closing this gap while also controlling for further risk factors such as lifetime poly-victimization that might impact the risk for bullying victimization. Furthermore, many studies focusing on resources in preventing victimization only rely on one resource, however, it is necessary to consider a broader range of resources to understand their combined effects (Lenzi et al, 2015).

Research Questions and Hypotheses

Youth in care have often been faced with a variety of adverse experiences and challenges. Recent studies suggested that youth in care also have a high risk of experiencing bullying victimization (e.g., Edwards & Batlemento, 2016). Therefore, the current study hypothesized that youth in care are more likely to have experienced bullying victimization than youth living in their biological families (Research Question 1). Furthermore, it was hypothesized that personal and social resources predicted bullying victimization with lower personal and social resources being associated with more bullying victimization (Research Question 2a). For personal and social resources that were found to be significant predictors of bullying victimization, it was further examined whether these associations were moderated by family placement (Research Question 2b).

Previous studies have shown that poly-victimization is common among youth in care (e.g., Segura et al., 2016). Finkelhor et al. (2007) found that controlling for poly-victimization reduced or eliminated the impact of specific forms of victimization on mental health problems, a finding that has been replicated in other studies (e.g., Lätsch et al., 2017). Turner et al. (2010) concluded that it is important to consider the impact of poly-victimization to avoid under- or overestimating the impact of total or specific victimization experiences. Furthermore, Nurius et al. (2020) found that high levels of adversity were significantly associated with lower resilience resources (e.g., family bondedness, school engagement). Therefore, the aforementioned research questions were controlled for lifetime poly-victimization as well as children's age and gender. In addition, both children's and caregiver's reports were included for the assessment of personal and social resources as well as lifetime poly-victimization experiences. Children's current experiences of bullying victimization were assessed solely through self-report, as previous studies have shown that parents are not always aware of their children's involvement in bullying (Holt et al., 2009).

Method

Participants

Initially, this study was started as an online survey with $N = 252$ participants. Of these participants, in $n = 9$ cases, neither child nor caregiver completed the questionnaires relevant to the present study. Therefore, these cases were excluded. The remaining $n = 243$ cases consisted of $n = 226$ cases where both caregiver and child data were available, $n = 13$ where only the child completed the questionnaires and $n = 4$ where only the caregiver provided complete data. For further analysis, bullies ($n = 3$) and bully-victims (being bully *and* victim; $n = 4$) as well as youth that could not be assigned to any of the bullying roles due to missing data ($n = 6$) were excluded for the analysis. In addition, $n = 1$ youth could not be clearly assigned to one of the gender groups and was therefore excluded from the analysis because gender was used as a variable in most analyses. Out of the remaining $n = 229$ cases with complete or partially complete data, $n = 119$ were youth in care ($n = 86$ in foster care, $n = 29$ in adoptive families, $n = 4$ in residential care). The final sample also included $n = 110$ youth living in biological families. The sampling procedure is depicted in Fig. 1.

All participating youths were between 8 and 21 years old. The participating social caregivers were between 30 and 72 years old, while the participating biological caregivers were between 33 and 58 years old. Further characteristics such as gender and lifetime victimization experiences are presented in Table 1.

Procedure

The present study was conducted as part of a larger online survey in youth aged between 8 und 21 years who either lived in care (or had lived in care) or with their biological families, with additional reports from a social or respectively biological caregiver if available. It was approved by the local ethics committee and took place between May 2020 and December 2021. The study received funding from

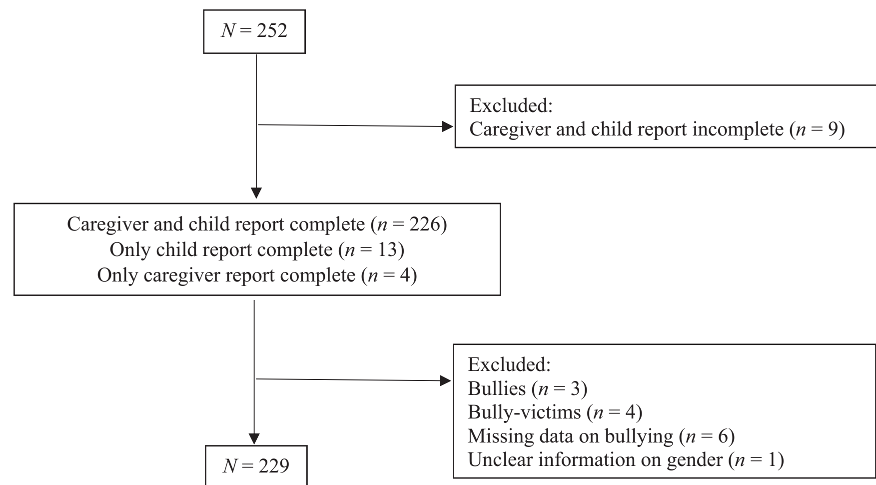

Fig. 1 Exclusion criteria

Table 1 Descriptive data of demographics in child and caregiver report

	Child report			Caregiver report		
Variables	*n*	In care *M* (*SD*)	Biological *M* (*SD*)	*n*	In care *M* (*SD*)	Biological *M* (*SD*)
Age	229	12.73 (3.17)	13.57 (3.84)	218	50.10 (7.50)	45.99 (5.99)
Duration of OOHC	111	9.58 (4.30)	-			
Lifetime poly-victimization[a]	168	7.83 (5.38)	4.79 (4.01)	218	7.03 (4.69)	2.75 (2.68)
	n_{total}	*n*	*n*	n_{total}	*n*	*n*
Family Placement[b]	229	119	110	218	114	104
Foster care		86	-			
Adoptive families		29	-			
Residential care		4	-			
Country of origin	119		-			
Germany		100	-			
Other		19	-			
Gender	229	Male = 57 Female = 62	Male = 49 Female = 61	218	Male = 19 Female = 95	Male = 9 Female = 95

OOHC Out-of-home care (in years)

[a]Child report: 11 to 21 years; caregiver report: 8 to 21 years

[b]In case of care leavers (>18 years) the last form of OOCH

the Federal Ministry of Education and Research (BMBF, funding code 01KR1806B).

To recruit participants for the study, youth welfare services and associations for foster and adoptive families were contacted throughout Germany. Furthermore, information about the project was shared via social media as well as in local newspapers and schools to recruit the comparison sample of youth living with their biological families. People interested in participation could contact the organizers of the study to receive all necessary information. All participants or, in case of minors under 16 years, their caregivers gave their informed consent prior to study participation.

In order not to overburden the participants, the questionnaires were provided in different parts in intervals of a few days apart. Selected questionnaires were only given to youth aged 11 years or older, as some questionnaires (like the YSR and JVQ-R2) deemed not suitable for children under 11 years of age for ethical reasons, in particular when provided online without face-to-face contact. This resulted in three 15- to 20-min surveys for youth aged between 8 and 10 years, and five surveys for youth aged between 11 and 21 years. Caregivers were presented with three surveys, of which each took approximately 30 min to complete. Families that completed the whole survey received an incentive. The amount of compensation was based on the level of participation and the age of the child with a minimum compensation of 20€ for completing the online survey. All participants were given a list of support services suitable for their age group.

Measures

Bullying victimization

The Bullying Screener was used as a self-report measure to assess children's current bullying victimization (Wolke, 2019; Wolke & Lereya, 2015). The Bullying Screener consists of three statements, each describing a form of bullying: *Direct Bullying*, *Relational Bullying,* and *Cyberbullying*. Each description is followed by a question about how often these things have happened to the participants in the past six months (*Bullying Victimization*) and how often they have done these things to others (*Bullying Perpetration*). Each question could be answered on a 4-point scale from *never* (1) to *a lot (at least once a week)* (4). Based on the instructions of the scale developers (Wolke, 2019; Wolke & Lereya, 2015), participants were counted as involved in either bullying victimization or perpetration if they chose either *quite a lot (more than four times)* (3) or *a lot (at least once a week)* (4) for at least one form of bullying for the respective bullying victimization or perpetration items. Participants that chose either *never* (1) or *not much (1-3 times)* (2) were classified as uninvolved in either bullying victimization or perpetration. In a final step, participants were categorized as victims, bullies, bully-victims or uninvolved (in both bullying victimization and perpetration) based on the combinations of the responses for *Bullying Victimization* and *Bullying Perpetration* to identify the groups relevant for the research questions. In addition, the mean of the three items assessing bullying victimization was calculated as a continuous variable. Across the six items of the questionnaire Cronbach's alpha was 0.61 in this study.

Personal and social resources

Personal and social resources were measured by the German Questionnaire to Assess Resources for Children and Adolescents (QARCA; Lohaus & Nussbeck, 2016). The questionnaire consists of six subscales for personal resources (*Empathy and Perspective Taking*, *Self-efficacy*, *Self-esteem*, *Sense of Coherence*, *Optimism*, and *Self-control*) and four subscales for social resources (*Parental Social and Emotional Support*, *Authoritative Parenting*, *Peer Group Integration,* and *School Integration*). Each subscale consists of six items with a 4-point scale ranging from *never* (1) to *always* (4). The questionnaire was presented to both children and caregivers. In the present study, the Cronbach's alphas of the subscales of the questionnaire in children's self-report ($0.73 \leq \alpha \leq 0.92$) were similar to the results presented in the manual ($0.68 \leq \alpha \leq 0.89$; Lohaus & Nussbeck, 2016). Also, the Cronbach's alphas of the subscales of the caregiver report were very good, $0.75 \leq \alpha \leq 0.94$. A mean score was calculated for each subscale of the questionnaire if at least five of six items were answered.

Lifetime poly-victimization

A revised German translation of the Lifetime Screener Sum Version of the Juvenile Victimization Questionnaire (JVQ-R2; Finkelhor et al., 2009, 2011) was used to assess the number of victimization experiences over lifetime. The JVQ-R2 was completed as a self-administered questionnaire by participating youth aged 11 years and older ($n = 168$), while all caregivers received the caregiver version of the JVQ-R2 ($n = 218$). The questionnaire originally consisted of 34 items with each item describing a different form of victimization. Each item was presented with a dichotomous response option (*yes*/*no*). One item (Statutory Rape & Sexual Misconduct) was excluded in the present study, so the total sum score of lifetime poly-victimization was calculated based on 33 items. In addition, two items (Physical Abuse by Caregiver; Witness to Parent Assault on Sibling) were adjusted by not explicitly excluding spanking. The original JVQ is well validated with a Cronbach's alpha of 0.80 for the total sum score (Finkelhor et al., 2005). The present study found a Cronbach's alpha of 0.83 for child reports and 0.82 for caregiver reports.

Statistical analysis

Statistical analyses were conducted using IBM SPSS Statistics 28. To test whether youth in care are more likely to experience bullying victimization than youth in biological families (Research Question 1), a chi-square test and the odds ratio were calculated. Additionally, the effect size (Cramer's V) for group comparison was determined, with 0.10 indicating a small, 0.30 a medium and 0.50 a strong effect. For Research Questions 2a and 2b, hierarchical linear regression analysis was applied using bullying victimization as dependent variable. Despite individual high correlations among the independent variables (Table 3), tolerance values were > 0.10 and variance inflation factors (VIF) < 10 (Eid et al., 2011). In a first step, basic demographic information (age and gender of the child) were entered. In a second step, lifetime poly-victimization was added as a further covariate. In the next step, the subscales assessing personal and social resources were added to the model. These variables were mean centered prior to entering the model. For any of the personal and social resources that significantly predicted bullying victimization, an interaction term between the relevant resource and family placement was entered in a final step. The model was applied to both child and caregiver report separately. Information on lifetime poly-victimization was collected from youth aged 11 to 21 years and caregivers of youth aged 8 to 21 years. Due to the

Table 2 Frequencies and mean of bullying victimization

Variable	In Care $n = 119$		Biological $n = 110$	
	n	%	*n*	%
Direct Bullying	15	13	-	-
Relational Bullying	14	12	4	4
Cyberbullying	3	3	-	-
Total[a]	26	22	4	4
	M	*SD*	*M*	*SD*
Bullying Victimization[b]	1.42	0.51	1.19	0.29

[a]Overall bullying victimization (yes/no). Participants could report to be affected by more than one form of bullying victimization

[b]Mean of bullying victimization

age threshold of the questionnaire in self-report as well as differences in the participation rates, sample sizes varied for models including youth's self-report and caregiver report. Explained variance is expressed through R^2 with 0.02 indicating a small, 0.13 a medium, and 0.26 a high level of explained variance (Cohen, 1988).

Results

Bullying Victimization (Research Question 1)

Among youth in care, 18% experienced one form of bullying, 3% experienced two forms of bullying victimization, and 1% experienced all three forms of bullying victimization while 78% had not experienced any form of bullying victimization in the past six months. No combination of different forms of bullying victimization was found for youth in biological families. One form bullying victimization was reported by 4% of youth living in biological families while 96% had not experienced any form of bullying victimization in the past six months.

To test for Research Question 1, a significant association between current overall bullying victimization and family placement was found, $\chi^2(1) = 16.66$, $p < 0.001$, Cramer's V = 0.27. Based on odds ratio, youth in care were 7.41 times more likely to experience bullying victimization than youth in biological families, 95%CI [2.494; 22.011]. Similarly, using the continuous variable reflecting the mean of bullying victimization, it was found that youth in care ($M = 1.42$, $SD = 0.51$) reported more bullying victimization than youth in biological families ($M = 1.19$, $SD = 0.29$), $t(189.84) = -4.26$, $p < 0.001$.

Considering the specific forms of bullying victimization, direct bullying was associated with family status (youth in care vs. in biological family), $\chi^2(1) = 14.84$, $p < 0.001$, Cramer's V = 0.26, as was relational bullying, $\chi^2(1) = 5.22$, $p = 0.022$, Cramer's V = 0.15, but not cyberbullying, $\chi^2(1) = 2.81$, $p = 0.248$, Cramer's V = 0.11. Overall, cyberbullying was rarely reported in this study as can be seen in Table 2.

Personal and Social Resources (Research Question 2a and 2b)

To test whether personal and social resources predicted bullying victimization and whether this association was moderated by family placement a hierarchical linear regression analysis was conducted. The intercorrelations of the predictor variables for both child and caregiver report are presented in Table 3. In general, correlations were as expected, for example, lifetime poly-victimization was negatively associated with personal and social resources while personal and social resources showed positive correlations among each other.

As shown in Table 4, for child report, adding self-reported lifetime poly-victimization as further covariate to the model including age and gender of the child significantly increased the explained variance for bullying victimization indicating that high levels of lifetime poly-victimization were associated with more bullying victimization, $\beta = 0.44$, $p < 0.001$. Entering the personal and social resources in the next step, also led to an increase in explained variance while lifetime poly-victimization remained a significant predictor, $\beta = 0.34$, $p < 0.001$. Among the personal and social resource, the subscales *parental social and emotional support*, $\beta = -0.31$, $p = 0.016$ and *school integration*, $\beta = -0.22$, $p = 0.027$, were negatively associated with bullying victimization indicating that lower levels of parental social and emotional support as well as lower levels of school integration were associated with more bullying victimization. Entering the interactions of these resources with family placement did not lead to an increase in explained variance, and neither of the interactions was found to be a significant predictor of bullying victimization. As a consequence, step 4 was not interpreted as it did not improve the model compared to step 3. The model explained 32% of variance.

Considering data based on caregiver report as presented in Table 5, adding caregiver reported lifetime poly-victimization as a covariate led to a significant increase in explained variance. Lifetime poly-victimization as reported by the caregiver was again a significant predictor for bullying victimization indicating that higher levels of lifetime poly-victimization were associated with more bullying victimization, $\beta = 0.20$, $p = 0.004$. Entering the personal and social resources to the model did not increase the explained variance and neither of the resources was

Table 3 Intercorrelations of study variables

	1.	2.[b, c]	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1.Age[a]	-	0.07	**0.23**	0.00	−0.04	−0.01	**−0.23**	−0.10	**−0.16**	**−0.20**	**−0.22**	−0.08	**−0.15**
2.Gender[b,c]	0.07	-	0.03	**0.19**	**0.23**	0.11	**0.19**	0.04	**0.15**	**0.16**	**0.15**	0.11	0.11
3.PV[a]	0.09	0.12	-	−0.01	**−0.22**	**−0.20**	**−0.23**	**−0.19**	**−0.19**	**−0.33**	**−0.27**	**−0.18**	**−0.20**
4.EPT[a]	0.04	**0.15**	**−0.18**	-	**0.39**	**0.33**	**0.27**	**0.48**	**0.38**	**0.14**	**0.33**	**0.32**	**0.27**
5.SOC[a]	**0.22**	0.05	**−0.33**	**0.57**	-	**0.70**	**0.74**	**0.55**	**0.73**	**0.47**	**0.54**	**0.54**	**0.55**
6.SEFF[a]	0.**21**	0.03	**−0.25**	0.47	0.85	-	**0.58**	**0.56**	**0.63**	**0.36**	**0.38**	**0.51**	**0.47**
7.SEST[a]	0.06	0.02	**−0.34**	0.47	**0.74**	**0.75**	-	**0.53**	**0.80**	**0.51**	**0.51**	**0.53**	**0.57**
8.SCON[a]	**0.20**	**0.15**	**−0.28**	**0.54**	**0.66**	**0.62**	**0.61**	-	**0.56**	**0.29**	**0.40**	**0.46**	**0.44**
9.OPT[a]	0.11	0.04	**−0.32**	**0.49**	**0.79**	**0.76**	**0.85**	**0.62**	-	**0.42**	**0.48**	**0.52**	**0.53**
10.PSUP[a]	**−0.17**	0.01	−0.11	**0.16**	**0.21**	**0.22**	**0.32**	**0.22**	**0.28**	-	**0.80**	**0.36**	**0.40**
11.AUP[a]	−0.02	0.03	−0.06	**0.25**	**0.29**	**0.25**	**0.27**	**0.28**	**0.25**	**0.45**	-	**0.43**	**0.41**
12.PGI[a]	0.02	0.09	−0.**40**	**0.47**	**0.60**	**0.56**	**0.60**	**0.45**	**0.61**	**0.15**	**0.26**	-	**0.67**
13.SI[a]	−0.11	0.01	**−0.29**	**0.34**	**0.52**	**0.49**	**0.59**	**0.39**	**0.58**	**0.22**	**0.24**	**0.68**	-

The results for the child report are shown above the diagonal. The results for caregiver report are shown below the diagonal. Significant correlations ($p < 0.05$) are presented in bold

PV Lifetime poly-victimization, *EPT* Empathy and Perspective Taking, *SOC* Sense of Coherence, *SEFF* Self-efficacy, *SEST* Self-esteem, *SCON* Self-control, *OPT* Optimism, *PSUP* Parental social and emotional support, *AUP* Authoritative Parenting, *PGI* Peer Group Integration, *SI* School Integration

[a]Pearson's correlation coefficient

[b]Eta coefficient

[c]0 = female, 1 = male

Table 4 Hierarchical linear regression for bullying victimization using child report

Variable	Step 1		Step 2		Step 3		Step 4	
	B (SE)	β	*B (SE)*	β	*B (SE)*	β	*B (SE)*	β
Constant	1.37 (0.17)		1.33 (0.16)		1.30 (0.17)		1.31 (0.17)	
Age	−0.00 (0.01)	−0.01	−0.02 (0.01)	−0.11	−0.01 (0.01)	−0.09	−0.02 (0.01)	−0.10
Gender	−0.11 (0.07)	−0.13	−0.10 (0.06)	−0.12	−0.08 (0.07)	−0.09	−0.08 (0.07)	−0.10
PV			0.04 (0.01)	0.44***	0.03 (0.01)	0.34***	0.03 (0.01)	0.35***
EPT					−0.08 (0.07)	−0.11	−0.09 (0.07)	−0.12
SOC					0.00 (0.10)	0.01	0.01 (0.10)	0.01
SEFF					−0.01 (0.08)	−0.02	−0.02 (0.08)	−0.02
SEST					−0.05 (0.08)	−0.08	−0.07 (0.08)	−0.11
SCON					0.09 (0.07)	0.12	0.09 (0.07)	0.12
OPT					0.08 (0.08)	0.12	0.10 (0.09)	0.14
PSUP					−0.20 (0.08)	−0.31*	−0.19 (0.11)	−0.29
AUP					0.17 (0.11)	0.22	0.16 (0.11)	0.20
PGI					−0.01 (0.08)	−0.01	−0.01 (0.08)	−0.01
SI					−0.15 (0.07)	−0.22*	−0.06 (0.09)	−0.09
FP					0.07 (0.07)	0.08	0.06 (0.07)	0.07
PSUPxFP							−0.02 (0.07)	−0.02
SIxFP							−0.17 (0.10)	−0.18
R^2	0.02		0.20		0.30		0.32	
ΔR^2	0.02		0.18***		0.11*		0.02	

$n = 163$, $n = 5$ missing due to missing data

SE Standard error, *PV* Lifetime poly-victimization, *EPT* Empathy and Perspective Taking, *SOC* Sense of Coherence, *SEFF* Self-efficacy, *SEST* Self-esteem, *SCON* Self-control, *OPT* Optimism, *PSUP* Parental social and emotional support, *AUP* Authoritative Parenting, *PGI* Peer Group Integration, *SI* School Integration, *FP* Family Placement

*$p < 0.05$. ***$p < 0.001$

found to be a significant predictor for bullying victimization. Step 3 was not interpreted as it did not improve the model compared to step 2. The model explained 11% of variance.

Discussion

The purpose of this study was to analyze whether youths in care were more likely to experience bullying victimization

Table 5 Hierarchical linear regression for bullying victimization using caregiver report

Variable	Step 1		Step 2		Step 3	
	B (SE)	β	*B (SE)*	β	*B (SE)*	β
Constant	1.49 (0.12)		1.43 (0.12)		1.41 (0.13)	
Age	−0.01 (0.01)	−0.11	−0.02 (0.01)	−0.13	−0.02 (0.01)	−0.13
Gender	−0.02 (0.06)	−0.02	−0.04 (0.06)	−0.05	−0.04 (0.06)	−0.04
PV			0.02 (0.01)	0.20**	0.01 (0.01)	0.05
EPT					0.04 (0.05)	0.06
SOC					−0.02 (0.11)	−0.02
SEFF					0.07 (0.09)	0.11
SEST					−0.01 (0.10)	−0.02
SCON					−0.05 (0.06)	−0.09
OPT					0.02 (0.10)	0.03
PSUP					−0.16 (0.11)	−0.12
AUP					0.10 (0.08)	0.10
PGI					−0.03 (0.07)	−0.05
SI					−0.07 (0.06)	−0.10
FP					0.17 (0.08)	0.20*
R^2	0.01		0.05		0.11	
ΔR^2	0.01		0.04**		0.06	

$n = 215$, $n = 3$ missing due to missing data

SE Standard error, *PV* Lifetime poly-victimization, *EPT* Empathy and Perspective Taking, *SOC* Sense of Coherence, *SEFF* Self-efficacy, *SEST* Self-esteem, *SCON* Self-control, *OPT* Optimism, *PSUP* Parental social and emotional support, *AUP* Authoritative Parenting, *PGI* Peer Group Integration, *SI* School Integration, *FP* Family Placement

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

than youths in biological families. Furthermore, it was analyzed if lower personal and social resources were associated with more bullying victimization while controlling for poly-victimization and, if so, if this association was moderated by family placement.

Research Question 1 proposed that youth in care would be more likely to experience bullying victimization than youth in biological families, which was supported by findings from the current study. Overall, there is a clear trend that youth in care (18%) report bullying victimization more frequently than youth living with their biological families (4%), which illustrates the high risk of bullying victimization among young people in care. This is consistent with previous international studies that have shown, for various forms of out-of-home care, that youth in care are at high risk for bullying victimization (e.g., Edwards & Batlemento, 2016). Several explanations for the high risk of bullying victimization among youth in care are conceivable. Living in some form of out-of-home care arrangement might be associated with stigmatization (Farmer et al., 2013). Moreover, youth in care might experience more class or school changes which could increase their risk for bullying victimization (Peguero & Hong, 2020). However, it is also possible that characteristics such as high rates of internalizing or externalizing problems which have been found for youth in care (e.g., Lohaus et al., 2017, 2018) are associated with a higher risk for bullying victimization (Schwartz et al., 1999). For youth living with their biological families, the prevalence of bullying victimization is slightly lower than in other studies such as the HBSC study, which found a prevalence of 8% for bullying victimization (Fischer et al., 2020). This may reflect the restrictions of the COVID-19 pandemic, where other studies also found less bullying due to the lack of direct contact (Vaillancourt et al., 2021). However, Vaillancourt et al. (2021) also found that at-risk groups were more affected by bullying victimization even under these circumstances. It is therefore possible that the prevalence among youth in care in this study is also lower than under normal circumstances. Also, as we asked for information from both, caregivers and from the youth themselves, the self-reports of bullying victimization might be biased if the youth felt that their answers might be read by their parents or in some cases answering the questionnaires online might have been even supported by their caregivers (although instructed to answer separately). This might have led to a tendency of underreporting in youth. In terms of the different forms of bullying victimization, it is striking that cyberbullying was reported infrequently in the present study among the participants that were included in the analysis whereas other studies suggested higher prevalence rates (e.g., Wolke et al., 2017). However, Petermann and von Marées (2013) found that reports of cyberbullying prevalence varied widely across studies, for example, depending on definition, measurement, or media use. Sage and Jackson (2021) also pointed out that social caregivers, such as foster parents, may be more inclined to limit smartphone or social media use, which hypothetically could be associated with fewer platforms for cyberbullying.

Furthermore, it was hypothesized that lower personal and social resources would be associated with more bullying victimization (Research Question 2a). Notably, in the present study, few personal and social resources were associated with the risk for bullying victimization. However, only in child report, the personal and social resources did add to the explained variance beyond lifetime poly-victimization. In the majority of previous studies, lower personal resources, such as self-esteem, were associated with bullying victimization (e.g., Hawker & Boulton, 2000). In the present study, personal resources alone did not predict bullying victimization. However, in line with previous studies which have shown that school integration or school climate was significantly negatively associated with bullying victimization (e.g., Cook et al., 2010; Gage et al., 2014), it was found that lower levels of school integration were associated with more bullying victimization. Similarly, it was found that lower parental support was associated with more bullying victimization. Therefore, this study added to previous results by underscoring the

importance of parental support and school climate beyond the impact of prior victimization experiences when addressing bullying victimization specifically. Overall, in terms of the socio-ecological framework of bullying (Swearer & Espelage, 2004), the role of the social environment in the context of bullying victimization was highlighted in the present study.

Interestingly, with regard to the Research Question 2b it was found that the association between relevant resources and bullying victimization was not moderated by family placement. Therefore, family placement does not appear to be necessarily associated with an increased risk for bullying victimization due to a lack of personal or social resources. Supporting this, a meta-analysis by Juffer and van IJzendoorn (2007) found no differences between adoptees and non-adoptees in self-esteem. However, in this meta-analysis differences between adoptees and institutionalized children were found, with adoptees reporting higher self-esteem. Similarly, children in foster care have been found to score higher in self-esteem than children in residential care (Gil & Bogart, 1982). It is possible that these findings can be applied more generally to the moderation by family placement: the combination of different types of out-of-home care and the high percentage of youth in foster care or adoptive families in the present study might have resulted in youth in care having higher levels of resources and being more similar to those of youth in biological families.

This study also included lifetime poly-victimization as a covariate to control for other (cumulative) victimization experiences over the lifetime period. Previous studies have shown that poly-victimization is a defining predictor with regard to mental health outcomes (Finkelhor et al., 2007; Lätsch et al.) and was also found to be relevant in predicting current bullying victimization in the present study. Especially in caregiver report, it was shown, that adding personal and social resources to the model did not increase the explained variance when lifetime poly-victimization was already controlled for. Therefore, this study adds to the existing literature by emphasizing the importance of including information about prior victimization experiences to better understand the antecedents of bullying victimization. It should be noted, however, that high prevalence rates of lifetime victimization experiences were found overall in the present study, which was particularly striking for self-reported lifetime victimization of youth in biological families. It is therefore possible that these high prevalence rates amplified the effects of lifetime poly-victimization in the present study.

Limitations

Certain limitations should to be considered when interpreting these results: The present study was conducted over different phases of the Covid-19 pandemic which could be associated with both the extent of experiences of bullying victimization as well as the availability of personal and social resources, as all participants were constrained in their daily lives. Vaillancourt et al. (2021) found that rates of bullying involvement during the pandemic were lower than before for all forms of bullying except cyberbullying, where no differences were observed. Therefore, it is possible that overall, the prevalence rates on bullying victimization reported in this study were lower than under regular circumstances.

It should also be noted that the present study used a rather small sample, and it would thus be beneficial to replicate these findings with a larger, more representative sample. In this context, the role of different bullying roles and forms, as well as different forms of out-of-home care, could also be considered more specifically. For example, the small sample sizes did not allow to assess the role of bullying perpetration or the combination of bullying perpetration and victimization more specifically. Compared to other studies, such as the HBSC study, which found a prevalence of 4% for bullying perpetration and 1% for bully-victims in Germany among 11-, 13- and 15-year-olds (Fischer et al, 2020), the prevalence of these two bullying roles was lower than expected, both in the group of youth living in biological families and among youth in care.

It should also be noted that the samples in this study may not be representative for children living in care or in biological families in general. For example, it has been found that families (both biological and foster families) participating in scientific studies tend to have a higher socioeconomic status than the general population (Chodura et al., 2018) thus limiting representativeness. Moreover, no assumptions about causality can be derived from this study because of its cross-sectional design.

Theoretical and Practical Implications

To date, bullying research has paid relatively little attention to youth in care. This study highlighted the need to consider bullying victimization as a further risk that youth in care might be confronted with. In addition, the major influence of previous and cumulative victimization experiences on current bullying victimization was highlighted, underscoring the importance of early support and prevention of such victimization experiences. In terms of theoretical implications, the findings underscore the need for future studies that focus on differences between youth in foster care and youth in biological families to consider prior experiences of poly-victimization. With respect to the practical impact, considering previous victimization experiences might also be an important element of future bullying programs. Hamby and Grych (2013) suggested that

this might improve both prevention and intervention programs. In terms of personal and social resources, parental support and school integration in particular emerged as important factors in reducing the risk of bullying victimization. In terms of the high risk of bullying victimization among youth in care, it is debatable whether universal bullying prevention programs are sufficient or whether selective programs are required. It should be noted that previous studies have indicated that youth in care are less inclined to participate in specific programs due to fear of stigmatization (Martin & Jackson, 2002). The results of this study suggest that universal bullying prevention programs that focus on improving school climate have a high potential to be effective with youth in care, while also considering the impact of prior victimization experiences. Programs that focus on a whole-school approach (Pearce et al., 2022; Vreeman & Carroll, 2007) involving all stakeholders (including parents if possible) could also be beneficial for both youth in care and youth in biological families. Nevertheless, due to the heightened risk of youth-in care due to their past experiences of victimization, a viable approach might be to train social caregivers through dedicated programs. These programs should provide guidance on recognizing signs of bullying and strategies for supporting their children if bullying occurs. Considering the significant impact of bullying on academic achievement (Laith & Vaillancourt, 2022) and mental health (Copeland et al., 2013; Takizawa et al., 2014), the development and implementation of bullying prevention measures are crucial.

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Compliance with Ethical Standards

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