

# Revictimization and the Specificity Hypothesis- Do Different Subtypes of Interpersonal Violence Predict Each Other?

Lioba Langer (✉ [lioba.langer@uni-bielefeld.de](mailto:lioba.langer@uni-bielefeld.de))

Bielefeld University: Universitat Bielefeld <https://orcid.org/0000-0003-3318-0020>

Frank Neuner

Bielefeld University: Universitat Bielefeld

---

## Research article

**Keywords:** sexual, physical and emotional violence, child abuse, revictimization, specificity hypothesis

**Posted Date:** March 10th, 2021

**DOI:** <https://doi.org/10.21203/rs.3.rs-296460/v1>

**License:**   This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

---

**Version of Record:** A version of this preprint was published at Journal of Women's Health and Development on January 1st, 2022. See the published version at <https://doi.org/10.26502/fjwhd.2644-28840077>.

# Abstract

**Background:** Revictimization refers to the finding that victims of child abuse have an increased risk of experiencing violence as adolescents and adults. To date, revictimization has been well documented for sexual violence. Recent findings show that the same phenomenon occurs for physical and emotional types of violence and indicate specificity in the relationship. In particular, childhood sexual abuse predicts sexual violence in adulthood and childhood physical abuse predicts future physical victimization. Although emotional violence is among the most harmful types of maltreatment, emotional revictimization has not yet been systematically documented. The aim of this study was to investigate how the three different types of childhood abuse (sexual, physical, and emotional) were related to the three different types of adult victimization (sexual, physical, and emotional).

**Methods:** In an online survey of 135 adult women with high levels of victimization, sexual, physical and emotional experiences of violence were assessed separately for childhood and adulthood.

**Results:** Linear regressions indicated specific relationships between childhood sexual and physical abuse and sexual violence in adulthood (standardized beta coefficients .33\*\*\* and .21\*), while childhood physical abuse predicts physical violence in adulthood (standardized beta coefficient .44\*\*\*). Emotional violence experiences in adulthood were predicted by childhood sexual and emotional abuse (standardized beta coefficients .20\*\*\* and .08\*).

**Conclusions:** The findings partly support the specificity hypothesis of revictimization and have significant implications for practice, particularly for the development of more effective approaches to preventing repeated violence.

## Introduction

Victims of childhood abuse have an increased risk of becoming victims of violence again in adolescence and adulthood [1]. Two out of three individuals who have experienced abuse in childhood fall victim to sexual abuse again later in life [2]. Women who have experienced physical or sexual abuse in childhood are 3.5 times more likely to become victims of domestic violence [3]. This phenomenon is called revictimization and has been recognized generating a considerable public-health burden [4]. However, the processes underlying revictimization have not yet been sufficiently researched. One factor to which little attention has been paid is whether there is a specific connection between the different types of violence. Understanding the links between childhood sexual abuse and adult sexual revictimization, and childhood physical abuse with adult physical revictimization experiences, would have two major functions. First, this understanding would serve to increase the predictive accuracy of a revictimization model. Second, understanding the links between abuse during childhood and revictimization during adulthood would clarify the mechanisms underlying revictimization, which offers an in road to develop better prevention work for victimized individuals [5].

To date, the literature has largely focused on sexual revictimization [6]. That is, the relationship between child sexual abuse and sexual victimization in adulthood. Research that targets physical violence is much more limited, and such studies mostly cover physical violence in addition to sexual violence. They revealed that the likelihood of sexual revictimization increases if, in addition to childhood sexual abuse, physical abuse also took place in childhood [7-8]. Further, research into inter-partner violence revealed that experiences of various types of abuse in childhood predict subsequent domestic violence [3]. Unfortunately, these studies fall short of analyzing the specificity of the relationship between different types of abuse and adult victimization. This limitation is due, in part, to methodology. Many such studies do not record violent experiences in childhood separately according to different forms of violence[3]. Thus, the cumulative effect of types of childhood violence is known in the current research.

Scant attention has been paid to the specific effect of different types of abuse. However, there are indications that better understanding the roles of specific types of violence may be relevant because the type of violence experienced in childhood is related to the type of violence experienced later in adulthood [9]. For example, a recent study showed that experiences of childhood sexual abuse uniquely predicted adult sexual abuse[10] and that, similarly, childhood physical abuse predicted adult physical abuse. To describe these results, we coined the term “specificity hypothesis” which states that the types of violence experienced in childhood (sexual and physical) are specifically related to the types of violence experienced in adulthood (sexual and physical). As this hypothesis has so far only emerged from the work by Langer and Catani [10], its verification in further studies is essential. Further research on the “specificity-hypothesis” has implications for the study of the mechanisms of revictimization, because specific relationships should be carried by specific processes of revictimization.

Thus far, support for the specificity hypothesis is still limited and restricted to physical and sexual types of violence. Emotional Violence has not yet been specifically investigated. In previous studies, emotional abuse in childhood has been considered only in combination with other types of violence; experiences of emotional violence in adulthood have not yet been studied in the context of revictimization [10]. Despite frequent co-occurrence with other forms of violence [11], specific patterns of behavior and experience emerge, particularly in the wake of childhood emotional abuse, and differ from the psychological malfunction emerging from sexual and physical abuse [12]. Emotional violence in childhood is associated with low self-esteem [12] and lack of social skills [13]. Low self-esteem, in combination with a lack of social skills, represents a predictor for later emotional victimization[14].

There is reason to assume that revictimization spans all types of violence and abuse, including emotional abuse. In addition, some findings suggest different revictimization processes and support the specificity hypothesis of revictimization. So far, studies that systematically record all three types of violent experiences in childhood, adolescence and adulthood are still lacking. However, a more nuanced knowledge of the processes of revictimization could offer the basis for a better understanding of the mechanisms underlying revictimization. The present study sought to address this gap in the literature. In particular, we aimed to determine the extent to which different types of childhood abuse (sexual, emotional and physical) are related to different types of adult violence (sexual, emotional and

physical). For the present study, we suspected a specific connection between the different types of violence. Specifically, we hypothesized that childhood sexual abuse would predict adult sexual violence, that childhood physical abuse would predict adult physical violence, and that childhood emotional abuse would predict adult emotional violence. For this purpose, we studied a sample of adult women with a wide range of victimization experiences and recorded retrospective reports on childhood as well as adulthood victimization. We considered a web-based survey as particularly suitable for this study because it allowed us to include highly affected individuals in our sample through the use of announcements in specific self-help groups and forums. In addition, web-based surveys allowed for full anonymity for respondents, which may have increased the participants' willingness to report sensitive content.

## Methods

### Procedure

The data for this study was collected in an online survey created with the Unipark software (Unipark, E.F.S. Survey, version 7). The aim was to recruit a sample with a large variance on the study variables, including maltreatment and revictimization, without focusing primarily on a clinical population. For this purpose, the link for participation was published in numerous private Facebook accounts and in self-help groups on the Internet which are focused on the topic of traumatic life experiences. Those self-help groups were located by a Google search. First the moderators of active online self-help groups were contacted, the contents of the study were presented and a publication of the link for participation was requested. Of 19 online self-help groups 14 agreed to the publication of the link. The link's publication was accompanied by brief information on the nature of the questions and the need for potential study participants to be of legal age. There was no incentive to participate. On the first page of the survey, the participants were informed about the contents and risks of the study, about the voluntary and anonymous nature of the survey, and the possibility to desist at any time without penalty. This was followed by a declaration of consent to participate in the study. The programming of the survey prevented the participants from seeing the contents of the study if they were underage.

First, demographic data (age, gender, education) were collected. Afterwards, the experience of different types of violence in childhood was investigated. In order to avoid closure effects, the pursue of various types of violence in adolescence and adulthood was only then examined. Subsequently, psychopathology was recorded. The average time taken to complete the survey was 23 minutes. The ethical considerations of this study were reviewed and approved by the Ethics Committee of the Department of Psychology at Bielefeld University. This study was part of a larger survey, that also included additional psychological variables that are not part of this analysis.

## Participants

In total, N= 1062 participants commenced the study and of those n= 155 finished it, leaving the completion rate at 14.6%. Most drop-outs took place on the start page (n=789, 74.29 %). Under 3% (n= 26) of drop-outs occurred at the declaration of consent and n = 20, 1.88 % drop-outs occurred during the indication of socio-demographic data. For all other questions, there was no noticeably higher number of drop-outs. The study was active for a total of 182 days. The average number of participants per day was 7.08.

Of the 155 participants who completed the study, only female and adult participants were considered. Therefore, eight underage participants and twelve men were excluded. The final sample thus consisted of N=135 participants aged 19 to 67 years ( $M = 33.4$ ;  $SD = 11.12$ ). They had an average of 14 years ( $SD = 3.27$ ) of formal education (primary school, secondary school, university).

## Measures

### Child abuse experiences.

The Childhood Trauma Questionnaire (CTQ[15-16]) is a self-assessment tool for the retrospective assessment of abuse and neglect in childhood. Due to the specific nature of the study, participants were instructed to click on items only if they were applicable before the age of 14. With 28 items, the questionnaire covers the subscales of sexual abuse (e.g., “when I grew up, someone tried to touch me sexually, or get me to touch him/her sexually”), emotional abuse (e.g., “when I grew up, people from my family said hurtful/offending things to me”), physical abuse (e.g., “when I grew up people from my family hit me so hard that I was bruised or scarred”), emotional neglect (e.g., when I grew up, I thought my parents wished I had never been born”) and physical neglect (e.g., “When I grew up, I had enough to eat”). The items were answered on a five-point Likert scale from 1 (not a bit) to 5 (very often). The CTQ showed good internal consistency for all scales in validation studies [17] besides the scale of physical neglect. Due to the low internal consistency of this scale and its high intercorrelation with the other scales [17] it was not included for analysis in the present study. In the present study, good internal consistency for the four scales used was confirmed (Cronbach’s alpha coefficients: sexual abuse .97, physical abuse .93, emotional abuse .92, emotional neglect .92). The decision on the existence of the different types of abuse was made on the basis of the cut-off values for the summed item scores of Walker et al. [18]. However, the frequencies thus obtained were used only for the descriptive information. In all further analyses, the summed item scores of the individual scales were used, independent of the cutoff values.

### Sexual Victimization in Adolescence and Adulthood.

The Potsdam scales for recording sexual aggression and victimization (SEX\_AGG\_VIC)[19] are a self-report instrument for the assessment of sexual aggression and victimization in adolescence and adulthood (after the age of 14). For the purpose of this study only the sexual victimization subscale was

used. The Potsdam scales record sexual victimization with three questions (e.g., "Since the age of 14, has anyone brought (or tried to bring) you into sexual contact by physically threatening or hurting you?"; "Since the age of 14, has anyone brought you (or tried to bring you) to sexual contact by pressuring you with words"). These questions were asked separately based on different potential offenders, which included the type of pre-relationship between offender and victim ((former) partners, acquaintances or strangers). In order to harmonize this instrument with the other assessments, the category "colleagues or supervisors at the workplace" was added here. Through the three questions combined with four possible perpetrators each, the instrument consists of 16 items. The items were answered on a four-point Likert scale regarding the frequency of occurrence. Three different strategies for exerting pressure were asked (use or threat of physical violence, exploitation of inability to resist, and verbal pressure). A more precise differentiation of forced sexual acts (sexual contact, attempted sexual intercourse, sexual intercourse and other sexual acts, e.g., oral sex) is mentioned in the explanatory text. This more precise differentiation is removed from the item query, as it is not relevant for the purpose of this study. As this is a newly developed instrument, no validity or reliability criteria were available. In the present study the scale was found to demonstrate a sufficiently good internal consistency (Cronbach's alpha coefficient .71). People are considered victimized if they have been exposed to sexual aggression on at least one occasion. For the present evaluation, the total scores of all items assessing victimization represented the experience of sexual violence in adolescence and adulthood.

## Physical and Emotional Victimization in Adolescence and Adulthood.

A recently created screening instrument was used to record and quantify the experience of physical and emotional violence in adolescence and adulthood. It was developed for one of the main German epidemiological studies on health, the "Study on Adult Health in Germany" (DEGS1) of the Robert Koch Institute (RKI) [20]. It explores whether there have been physical or emotional experiences of violence, both from the victim's and the perpetrator's perspective. The preliminary relationship between perpetrator and victim is also recorded ((former) partners, acquaintances, work colleagues/supervisors at the workplace or strangers). In order to avoid confusion with experiences of intrafamily childhood violence, the category of "one person from the family" was omitted. For the same reason, participants were instructed to select the items only if the experience had taken place at or after the age of 14. An additional question on the burden of the respective experience of violence was removed as it was not relevant for the purpose of this study. In total the instrument consisted of eight items, four concerning physical violence and four concerning emotional violence (e.g., "Has an (ex-)partner physically attacked you from the age of 14 onwards (e.g., hit you, slapped you, pulled your hair, kicked you, threatened you with a gun or an object"; "Has a friend or an acquaintance devalued you from the age of 14 onwards (in terms of your appearance, the way you dress, the way you think, act or work, or possible disability? Or has a friend or acquaintance insulted, threatened, harassed or pressured you?"). The items were answered on a four-point Likert scale regarding the frequency of occurrence rated from As this study only considered the victim's perspective, eight items about the perpetrator's perspective were left out. Due to the recent development of this instrument, no reliability or validity criteria was yet available for use. The

internal consistencies identified in this study were considered sufficient in view of the low number of items (four per scale; Cronbach's alpha coefficients: physical violence .59, emotional violence .71). Participants were considered victimized if they had been exposed to physical or emotional aggression on at least one occasion. However, this information was used only for descriptive purposes. For the present evaluation, the total scores of all items concerning victimization represented the experience of physical or emotional violence in adolescence or adulthood.

## **PTSD Symptoms.**

The Primary Care PTSD Screen (PC-PTSD)[21] is a screening instrument for the detection of post-traumatic stress disorder (PTSD). The scale consists of four items in dichotomous response format (Yes/No). It asks whether a person has experienced four symptoms typical of PTSD in the last month: Re-experience, numbness, avoidance, and hyperarousal. The PC-PTSD has optimum efficiency in terms of the best possible combination of sensitivity and specificity at a cut-off value of three[21]. The cut-off value was only used for descriptive purposes in this study. The summed item scores were used in the evaluation, representing a value for the exposure to symptoms of PTSD. The PC-PTSD has good retest reliability and correlates highly with the standard instrument for the detection of PTSD, the Clinician Administered PTSD Scale (CAPS)[21].

## **Symptoms of Depression.**

The health questionnaire for patients (PHQ-9) [22-23] is a screening instrument used for the detection of a depressive disorder. The self-report questionnaire contains nine items that assess whether typical symptoms of depression (based on the DSM-IV criteria) have occurred in the last two weeks. The items were answered on a four-point scale regarding the frequency of occurrence rated from . The PHQ-9 has previously demonstrated good validity and retest reliability [23]. In addition, good values for sensitivity and specificity were confirmed for the stated cut-off values for the severity of depressive symptoms [24]. These cut-off values were only used for descriptive purposes in this study. The summed item scores were used in the evaluation representing a value for the burden of symptoms of depression.

## **Statistical Analyses**

The statistical analyses of the study were carried out with the statistical program IBM SPSS Statistics, version 21. All procedures refer to the significance level  $\alpha = .05$ . To describe the sample characteristics, the variables of sexual, physical, emotional abuse, emotional neglect in childhood and sexual, physical, and emotional experiences of violence in adulthood were treated as dichotomous variables using the cut-off values described above. They were used as continuous variables in all further analyses. The scales of emotional abuse and emotional neglect were combined due to their high correlation (sum of the scores of the individual scales). The scale of emotional abuse reflected this composite value.

In order to test the predictors for the experience of violence in adulthood, linear regressions were calculated. To carry out the regression analyses, the normal distribution of the residuals was checked by visual inspection first. According to the question of what specific contribution different types of childhood abuse experiences make to the prediction of a subsequent revictimization, all potential predictors were simultaneously included in the regression model. In a first linear regression, the variable sexual experiences of violence in adulthood served as a dependent variable. Independent variables were sexual abuse, emotional abuse, and physical abuse in childhood. In the following two linear regressions, the same independent variables were used. The dependent variables were experiences of physical violence in adulthood and experiences of emotional violence in adulthood.

## Results

Overall, 83 % of the participants stated that they had experienced violence in adolescence or adulthood, with experiences of emotional violence occurring as the most frequent form in our sample (83%). Eighty-seven percent of the participants were victims of at least one subtype of interpersonal violence in childhood. For 81% of the participants, emotional abuse was the most frequent form of violence during childhood. Of the 117 participants who had experienced any form of violence in childhood, 115 re-experienced violence in adulthood. Those participants were regarded as revictimized.

The results of the short screenings suggest an increased psychopathological stress in the examined sample. Seventy-six percent of the participants answered in the affirmative to three out of four questions about post-traumatic symptoms and were thus above the cutoff value, which seems to indicate the possible presence of PTSD (21). When responding to the PHQ, 83 % of the participants were above the value of 15, which is considered to be indicative of a potential depressive risk; such as a moderate depressive episode. A complete overview of the descriptive statistics can be found in Table 1. A more detailed overview of the frequencies of different types of violence as well as the different perpetrators can be found in Figure 1.

## Predicting Sexual, Physical and Emotional Victimization in Adulthood from Abuse Experiences in Childhood

In all regression analyses conducted in this sample, the scatterplot of residuals did not indicate a deviation from the normal distribution. A test of the multicollinearity of the predictors showed that although the predictors correlated with each other, the assumption of multicollinearity was not violated. The regression analyses could therefore be carried out without restriction.

The results of the regression analyses for the variables adult sexual, physical, and emotional violence are shown in Table 2. Significant predictors of adult sexual violence were sexual abuse ( $\beta = .33$ ;  $p < .001$ ) and physical abuse ( $\beta = .21$ ;  $p < .05$ ) in childhood,  $F(3,131) = 17.70$ ,  $p < .001$ . Adult physical violence was significantly predicted by physical abuse ( $\beta = .44$ ;  $p < .001$ ) in childhood,  $F(3,131) = 19.97$ ,  $p < .001$ .

Significant predictors for adult emotional violence were sexual abuse ( $\beta = .20$ ;  $p < .001$ ) and emotional abuse ( $\beta = .08$ ;  $p < .05$ ) in childhood,  $F(3,131) = 12.57$ ,  $p < .001$ .

## Discussion

In an online survey with individuals with high rates of experiences of violence we found evidence to support the specificity hypothesis of revictimization. Across developmental stages, specific types of abuse were inter-correlated: childhood physical abuse predicted adult physical violence. The assumption of specificity could be extended, in part, to sexual and emotional violence. Adult sexual violence was predicted by childhood sexual abuse and by childhood physical abuse. Adult emotional violence was predicted by childhood emotional abuse and by childhood sexual abuse.

In terms of sexual and physical revictimization, these results are consistent with the results of studies by Langer and Catani [10], which also provided evidence of the specificity hypothesis. This study also predicted sexual violence in adulthood from sexual and physical abuse. However, sexual abuse turned out to be a significantly stronger predictor of sexual violence in adulthood compared to physical abuse [10]. Other findings argue against differentiation based on the type of violence. Coid and colleagues [3] showed that, although less severe forms of abuse in childhood are associated with similar forms of abuse in adulthood, more severe forms of abuse seemed to lead to a generalization effect. The more severe the childhood sexual or physical abuse was, the more generalized the revictimization experienced in adulthood was for sexual and physical assault. However, in the study by Coid and colleagues [3], an increasing severity of childhood experiences of violence also involved the presence of more subtypes of childhood experiences of violence, which could explain that later experiences of victimization were both sexual and physical.

Contrary to the specificity hypotheses, adult emotional violence was predicted by childhood sexual abuse as well as childhood emotional abuse. In contrast to the prediction of sexual violence in adulthood, there is no stronger effect of emotional violence in childhood indicated. Because this is, to the best of our knowledge, the first investigation of emotional violence and revictimization, it is not yet possible to refer to confirmatory or contradictory research results.

The processes underlying the revictimization phenomenon are not yet sufficiently understood. One can only rely on suppositions, particularly when considering the specific connections between the types of violence found in this study. Similar to other studies that investigated the revictimization phenomenon, we refer to the contribution of attachment to maltreatment and attachment theory in trying to explain the results [25].

Children form mental representations of themselves in relationships and of others as their relationship partners, based on their previous history with important reference persons [25]. These experiences remain stable individual working models about relationships into adulthood and influence the way children design certain model-consistent interaction dynamics [26]. Through childhood experiences of abuse, distorted cognitions about power, control, attachment, trust, and possibly intimacy emerge [27]. These

distorted cognitions thus also have an effect in adulthood. In case of childhood physical abuse, such an effect can be seen, for example, in increased attachment anxiety, i.e. the exaggerated fear of being abandoned with a simultaneous strong need for closeness [28]. For individuals with strong attachment anxiety, the personal costs of distancing themselves from their interaction partners in high-risk situations, as well as the costs of offering resistance, are correspondingly higher [28]. It could therefore be assumed that victims of childhood physical abuse are more likely to accept physical violence from their partners in order not to endanger the relationship and the associated closeness.

With regard to childhood emotional abuse, it could be assumed that the children have internalized the derogatory statements about themselves and perceive themselves as "worthless", "stupid", "lazy" or "ugly" [12]. Such self-perception prevents normal interaction with the environment and promotes social withdrawal [12]. As described above, additional social skills are not learned [13], which is often accompanied by exclusion from "normal groups" [29]. This exclusion alone can be an experience of emotional violence in and of itself. Furthermore, such persons are often regarded as "easy victims" of experiences of emotional violence in social groups or in partnerships. Following childhood sexual abuse there may be two paths: on the one hand to sexual revictimization, on the other hand to emotional revictimization. With regard to the connection between childhood sexual abuse and sexual violence in adulthood, it can be assumed that distorted cognitions exist about sexuality, intimacy, and power [26]. If caring and abusive behavior take place simultaneously in families, abuse may even be confused with sexuality and intimacy [30]. In the context of emotion regulation, distorted cognitions make dysfunctional sexual behavior (i.e. using sexual activity to meet nonsexual needs e.g., affect regulation, having sex with someone under the influence of alcohol/drug frequency, increased number of sexual partners or sexual intercourse with strangers) more likely [31]. This behavior can be misinterpreted as consenting to sexual contact, or, on the other hand, it can lead to a person being regarded as an "easy victim" of sexual violence [32].

Another possible impact of childhood sexual abuse, beyond potential dysfunctional sexual behavior, may be shown in internalized feelings of shame. The decisive factor for whether externalization tendencies or internalization tendencies arose could be represented in the processing or explanation at that time by the family or perpetrator of the sexual abuse. An internalization of self-deprecating cognitions can lead to a similar self-perception as described above concerning adult emotional violence and thus lead to a social withdrawal. Social isolation increases the risk of being seen as an "easy victim" of negative behaviors such as bullying or emotional violence in partnerships.

When considering the impact of the findings of the present study, it is critical to consider the strengths and weaknesses of the study design itself. The strength of this study lies in the systematic recording of all three types of violent experiences (sexual, emotional, and physical) both in childhood and in adulthood. The results therefore represent an extension of the current state of knowledge in the field of revictimization research, which has so far largely concentrated on sexual and physical abuse in childhood. Only this approach allows statements to be made about specific relationships between certain types of violence in childhood and adulthood and thus provides valuable insights for the development of

specially tailored prevention approaches for victims of sexual, physical, or emotional violence. Similarly, the form of the online survey could be considered advantageous as it minimalizes the tendency towards socially desirable answers by the anonymity of this form of survey. In addition, this procedure allows accessing a wide variety of subjects. In contrast to studies recruiting college students or clinical samples only, we had hardly any barrier with regard to study participation other than access to the internet. However, this ease of entry also presented a limitation of our methodology. An online survey's major disadvantage is that there is no way to authenticate who is providing the data.

As previously mentioned, the procedure allows accessing a wide variety of subjects. However, we refrained from explicitly asking for indicators of diversity such as sexual orientation, disability, and migration background. We did this in an effort to boost participant retention in our study. Detailed questions about migration, sexual orientation or income could be perceived as offensive and could lead to an early termination of the study. Because of these limitations on demographic data we cannot exclude that the sample may be more homogenous than intended, and the generalizability of the results is therefore also lower. Another point that limits the generalizability of the results of the sample is the high psychopathological burden of the sample, which is shown by the results of the PHQ and PC\_PTSD. For these reasons, caution should be exercised when generalizing the results of this study to the general public. This finding may indicate that there may also have been a self-selection bias in participants, as the subject matter associated with the survey may have offered survivors of abuse and violence to provide information regarding their experiences.

With regard to the recording of physical and emotional violence in adulthood, the newly developed instrument does not yet provide valid cutoff values for frequencies. In accordance with the assessment of sexual violence, a cutoff value of 1 was chosen. However, it can be assumed that the frequencies of emotional violence are distorted. Nor can bullying experiences at school be depicted with the instrument used. Experiences of violence were examined retrospectively. This method has been questioned with regard to the validity of retrospectively reported memories [33]. However, Barnes, Noll, Putnam, and Trickett [34] showed that retrospective recording of sexual or physical (re)victimization in a test-retest recording was stable over two years. The cross-sectional design used does not permit reliable statements about causal relationships between the recorded variables. Information from longitudinal studies with large, ideally representative samples would certainly be desirable here.

In summary, the results of the study provide an important confirmation of the specificity hypothesis and show that the processes underlying the revictimization phenomenon must be viewed in a more differentiated way. In a field which is dominated by research on sexual violence and partly physical violence, particularly novel and valuable are the findings on emotional violence, which suggest that this form of violence should not be neglected in research and clinical practice. Future studies, ideally with a longitudinal design, should be devoted to the further investigation of these connections in order to be able to make valid statements regarding the consequences of child abuse for the later revictimization of those affected. Similarly, future research should also address the question of what other factors, such as socioeconomic status, racism or gender, contribute to experiences of repeated violence.

In spite of the relationships found between the experiences of violence, it is still possible to speculate about the specific mechanisms of action as to why revictimization occurs at all. We hope that the differentiated consideration of specific revictimization processes will enable conclusions to be drawn about possible mediators in a next step. Ideally, this research will provide the basis for further research showing that different types of childhood violence are followed by different meditative variables, making it more likely that different types of victimization will occur. Such knowledge would be indispensable in specifying prevention approaches for the victims of experiences of violence. Although much more research is needed, we believe that this research topic has the potential to significantly reduce the revictimization phenomenon in the long term by means of constructive therapy approaches.

## **Declarations**

### **Ethics approval and consent to participate**

The ethical considerations of this study were reviewed and approved by the Ethics Committee of the Department of Psychology at Bielefeld University.

Written informed consent was obtained from all participants. (see Procedure page 5: On the first page of the survey, the participants were informed about the contents and risks of the study, about the voluntary and anonymous nature of the survey, and the possibility to desist at any time without penalty. This was followed by a declaration of consent to participate in the study).

### **Consent for publication**

Not applicable.

### **Competing interests**

The authors declare that they have no competing interests.

### **Availability of data and materials**

The datasets during and analysed during the current study available from the corresponding author on reasonable request.

### **Funding**

No funding was received.

# Authors' contributions

LL wrote the manuscript and created the tables and figures. All authors read and approved the final manuscript.

# Acknowledgements

Not applicable.

# References

1. Bockers E, Knaevelsrud C. Reviktimisierung: Ein bio-psycho-soziales Vulnerabilitätsmodell. *PPmP- Psychotherapie Psychosomatik Medizinische Psychologie*. 2011;61(09/10):389–97.
2. Classen CC, Palesh OG, Aggarwal R. Sexual revictimization: a review of the empirical literature. *Trauma Violence Abuse*. 2005;6(2):103–29.
3. Coid J, Petrukevitch A, Feder G, Chung WS, Richardson J, Moorey S. Relation between childhood sexual and physical abuse and risk of revictimization in women: a cross-sectional survey. *The Lancet*. 2001;358(9280):450–4.
4. Bockers E, Roepke S, Michael L, Renneberg B, Knaevelsrud C. Risk recognition, attachment anxiety, self-efficacy, and state dissociation predict revictimization. *PloS one*. 2014;9(9):e108206. doi:10.1371/journal.pone.0108206.
5. Bornovalova MA, Gwadz MA, Kahler C, Aklin WM, Lejuez CW. Sensation seeking and risk-taking propensity as mediators in the relationship between childhood abuse and HIV-related risk behavior. *Child Abuse Negl*. 2008;32(1):99–109.
6. Widom CS, Czaja SJ, Dutton MA. Childhood victimization and lifetime revictimization. *Child Abuse Negl*. 2008;32(8):785–96.
7. Merrill LL, Newell CE, Thomsen CJ, Gold SR, Milner JS, Koss MP, et al. Childhood abuse and sexual revictimization in a female Navy recruit sample. *J Trauma Stress*. 1999;12:211–25.
8. Messmann-Moore TL, Walsh KL, DiLillo D. Emotion dysregulation and risky sexual behavior in revictimization. *Child Abuse Negl*. 2010;34:967–76.
9. Blom H, Högberg U, Olofsson N, Danielsson I. Strong association between earlier abuse and revictimization in youth. *BMC Public Health*. 2014;14:715–25.
10. Langer L, Catani C. Kindesmissbrauch und Reviktimisierung: Die Bedeutung unterschiedlicher Gewalttypen. *Zeitschrift für Klinische Psychologie Psychotherapie*. 2016;45(4):279–89.
11. Mullen PE, Martin JL, Anderson JC, Romans SE, Herbison GP. The long-term impact of the physical, emotional, and sexual abuse of children: A community study. *Child Abuse Negl*. 1996;20(1):7–21.
12. Briere J, Runtz M. Differential adult symptomatology associated with three types of child abuse histories. *Child Abuse Negl*. 1990;14(3):357–64.

13. Clausen AH, Crittenden PM. Physical and psychological maltreatment: Relations among types of maltreatment. *Child Abuse Negl.* 1991;15(1):5–18.
14. Ma X. Bullying and being bullied: To what extent are bullies also victims? *Am Educ Res J.* 2001;38(2):351–70.
15. Bernstein DP, Fink L. (1998). *Childhood trauma questionnaire: A retrospective self-report: Manual.* Harcourt Brace & Company.
16. Wingenfeld K, Spitzer C, Mensebach C, Grabe HJ, Hill A, Gast U, Driessen M. Die deutsche Version des Childhood Trauma Questionnaire (CTQ): Erste Befunde zu den psychometrischen Kennwerten. *PPmP-Psychotherapie· Psychosomatik· Medizinische Psychologie.* 2010;60(11):442–50.
17. Klinitzke G, Romppel M, Häuser W, Brähler E, Glaesmer H. Die deutsche Version des Childhood Trauma Questionnaire (CTQ)–psychometrische Eigenschaften in einer bevölkerungsrepräsentativen Stichprobe. *Psychother Psychosom Med Psychol.* 2012;62(2):47–51.
18. Walker EA, Gelfand A, Katon WJ, Koss MP, Von Korff M, Bernstein D, Russo J. Adult health status of women with histories of childhood abuse and neglect. *Am J Med.* 1999;107(4):332–9.
19. Krahe B, Berger A. Potsdamer Skalen zur Erfassung sexueller Aggression und Viktimisierung (Sex\_Agg\_Vik). In: Strauß B, Brähler E, Richter D, Herausgeber. *Sexualwissenschaftliche Testverfahren.* Göttingen: Hogrefe; 2014. S. 162–7.
20. Schlack R, Rüdell J, Karger A, Hölling H. Körperliche und physische Gewalterfahrungen in der deutschen Erwachsenenbevölkerung. *Bundesgesundheitsblatt.* 2013;56:755–64.
21. Prins A, Ouimette P, Kimerling R, Camerond RP, Hugelshofer DS, Shaw-Hegwer, ... Sheikh JI. The primary care PTSD screen (PC PTSD): development and operating characteristics. *Primary Care Psychiatry.* 2003;9(1):9–14.
22. Spitzer RL, Kroenke K, Williams JB, Patient Health Questionnaire Primary Care Study Group, & Patient Health Questionnaire Primary Care Study Group. Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. *Jama.* 1999;282(18):1737–44.
23. Löwe B, Spitzer RL, Zipfel S, Herzog W. (2002b). Comparative validity of three screening questionnaires for DSM-IV depressive disorders and physicians diagnosis.
24. Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med.* 2001;16(9):606–13.
25. Bowlby J. *A secure base: Parent-child attachment and healthy human development.* New York: Basic Books; 1988.
26. Wekerle C, Wolfe DA. The role of child maltreatment and attachment style in adolescent relationship violence. *Dev Psychopathol.* 1998;10(3):571–86.
27. Cloitre M, Scarvalone P, Difede J. Posttraumatic stress disorder, self-and interpersonal dysfunction among sexually retraumatized women. *J Trauma Stress.* 1997;10(3):437–52.
28. Bockers E, Knaevelsrud C. Sexuelle Reviktimisierung. *Psychotherapie im Dialog.* 2014;15(1):78–80.

29. Sandberg DA, Valdez CE, Engle JL, Menghrajani E. (2016). Attachment Anxiety as a Risk Factor for Subsequent Intimate Partner Violence Victimization A 6-Month Prospective Study Among College Women. *Journal of interpersonal violence*, doi:0886260516651314.
30. Downs WR. Developmental considerations for the effects of childhood sexual abuse. *Journal of Interpersonal Violence*. 1993;8(3):331–45.
31. Messman-Moore TL, Coates AA, Gaffey KJ, Johnson CF. Sexuality, substance use, and susceptibility to victimization: Risk for rape and sexual coercion in a prospective study of college women. *J interspers Violence*. 2008;23(12):1730–46.
32. Noll JG, Trickett PK, Putnam FW. Social network constellation and sexuality of sexually abused and comparison girls in childhood and adolescence. *Child maltreatment*. 2000;5(4):323–37.
33. Schumacher J, Hinz A, Brähler E. Zur Validität retrospektiver Datenerhebungen -Das elterliche Erziehungsverhalten in der Erinnerung junger Erwachsener und ihrer Eltern im Vergleich. *Zeitschrift für Differentielle Diagnostische Psychologie*. 2002;23(4):459–74.
34. Barnes JE, Noll JG, Putnam FW, Trickett PK. Sexual and physical revictimization among victims of severe childhood sexual abuse. *Child Abuse Negl*. 2009;33(7):412–20.

## Tables

**Table 1 Descriptives**

	<b>M(SD)</b>	<b>N (%) above the cutoff value</b>
Age	33.40 (11.12)	
Formal education	13.66 (3.27)	
Child emotional abuse	17.76 (6.47)	81
Child physical abuse	11.39 (6.30)	61
Child sexual abuse	14.84 (7.72)	70
Child emotional neglect	17.71 (5.93)	71
Child emotional abuse (composite)	35.47 (11.41)	
Adult sexual abuse	5.53 (5.42)	77
Adult physical abuse	2.29 (2.76)	61
Adult emotional abuse	5.65 (4.10)	83
PTSD symptoms	3.10 (1.47)	76
Depression symptoms	14.42 (7.63)	73

**Table 2 Predictors of sexual victimization, physical victimization and emotional victimization (Predictors: Experiences of violence in childhood)**

Predictors	Adult Sexual Violence <sup>1</sup>		Adult Physical Violence <sup>2</sup>		Adult Emotional Violence <sup>3</sup>	
	$\beta$	$r$	$\beta$	$r$	$\beta$	$r$
Child sexual abuse	.33 ***	.54 **	.16	.45**	.20***	.44**
Child physical abuse	.21 *	.42 **	.44 ***	.55 **	-.05	.32**
Child emotional abuse	.03	.35 **	.001	.40 **	.08*	.37**

Note.  $N = 135$ .  $\beta$ : standardized beta coefficient;  $r$ : 0-order correlation (Spearman).

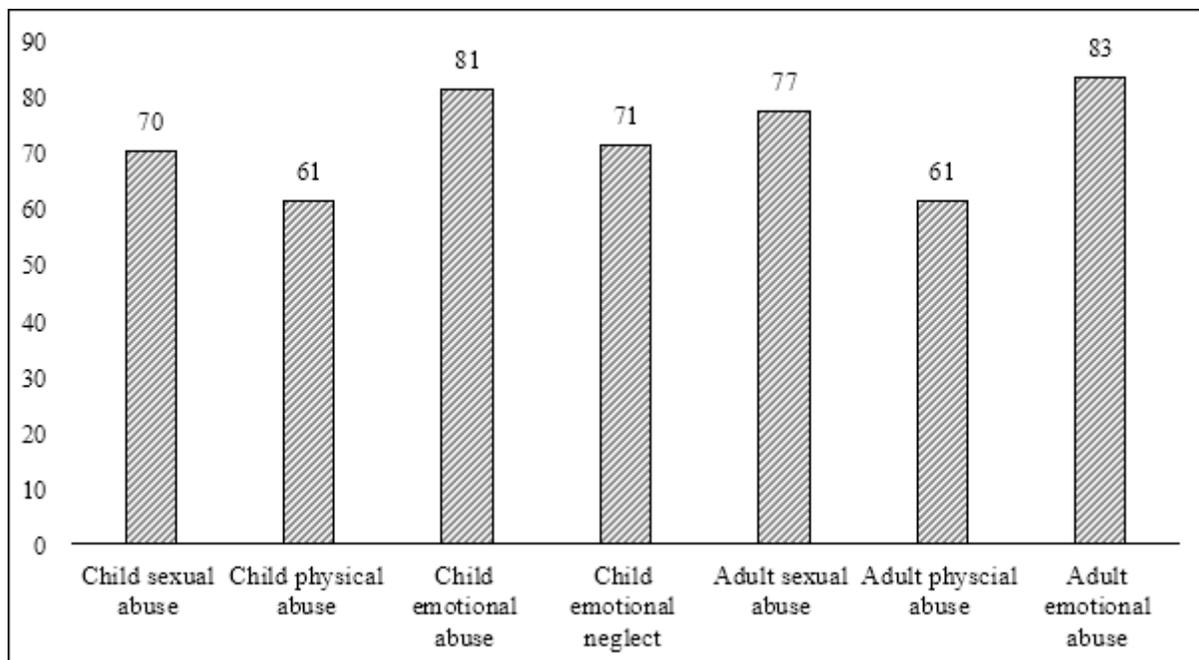
<sup>1</sup> corrected  $R^2 = .27$ ,  $F(3,131) = 17.70$ ,  $p < .001$

<sup>2</sup> corrected  $R^2 = .30$ ,  $F(3,131) = 19.97$ ,  $p < .001$

<sup>3</sup> corrected  $R^2 = .21$ ,  $F(3,131) = 12.57$ ,  $p < .001$

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

## Figures



**Figure 1**

The number of participants (in percent) who achieve the cut-off values of the abuse or neglect criteria in childhood or adulthood.

## Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [DemographicData.docx](#)