

LINKING CHILD MALTREATMENT HISTORY WITH CHILD ABUSE POTENTIAL: RELATIVE ROLES OF MALTREATMENT TYPES

MARIJA MITKOVIC-VONCINA¹, DUSICA LECIC-TOSEVSKI^{1,2}, MILICA PEJOVIC-MILOVANCEVIC^{1,2}
and SMILJKA POPOVIC-DEUSIC^{1,2}

¹ *Institute of Mental Health, Palmoticeva 37, 11000 Belgrade, Serbia*

² *Belgrade University School of Medicine, Dr Subotica 8, 11000 Belgrade, Serbia*

Abstract – The independent roles of each childhood maltreatment type on child abuse potential in adults have been insufficiently explored and are inconsistent, with dissociation as one of the possible suggested mediators of intergenerational child abuse. We investigated these effects among 164 non-clinical adult parents, who filled in general questionnaires: Childhood Trauma Questionnaire (CTQ), Child Abuse Potential Inventory (CAPI) and Dissociative Experience Scale (DES). Among all maltreatment types (emotional, physical and sexual abuse, emotional and physical neglect), emotional abuse was the only independent predictor in the regression model of child abuse potential. The relationship between emotional abuse history and child abuse potential was partially mediated by dissociation. The findings could speak in favor of the potentially unique detrimental role of emotional abuse in intergenerational maltreatment, with dissociation as one of the possible mechanisms.

Key words: Child maltreatment; emotional abuse; child abuse potential; dissociation

INTRODUCTION

Child maltreatment has been an issue of considerable concern due to its enduring effect on brain development (Teicher et al., 2003) and subsequent disturbances of psychological functioning in childhood, adolescence and adulthood (Teicher et al., 2010). One of the consequences, largely substantiated in the literature, refers to the continuation of abusive behavior into the next generation (Boule et al., 2004; Caliso and Milner, 1992; dePaul and Domenech, 2000; Hall et al., 1998; Milner et al., 1990; Pears and Capaldi, 2001). Not all victims of child maltreatment, however, tend to perpetuate the abuse cycle (Oliver, 1993). One of the factors related to the continuation of the intergenerational transmission of child maltreatment in previous studies was dissociation (Collin-Vezina

and Cyr, 2003; Egeland and Susman-Stillman, 1996; Narang and Contreras, 2005), which relates to a reduced integration of memory, behavior, emotion and identity, and appears to be a specific reaction to trauma (Narang and Contreras, 2005).

The nature of child victimization is another largely examined factor, hypothesized to influence the potential for child abuse (dePaul and Domenech, 2000, DiLillo et al., 2000, Pears and Capaldi, 2001). The focus of previous research has been directed to child physical and sexual abuse, evidenced as the most significant predictors (Caliso and Milner, 1992; dePaul and Domenech, 2000; DiLillo et al., 2000). Child neglect was also found to be related to poor parenting (Newcomb and Locke, 2001). Emotional abuse, however, as a subtle and less evident

form of child maltreatment, has rarely been directly addressed in this particular domain of research. As a phenomenon in general, it has relatively recently become a subject of increased scientific attention, demonstrating insidious psychiatric outcomes, after checking for other forms of maltreatment (Kent et al., 1999; Spertus et al., 2003; Teicher et al., 2006). As different types of childhood maltreatment often coexist (Teicher et al., 2006) and additive effects of multi-type maltreatment may increase negative outcomes (Arata et al., 2007; Clemmons et al., 2003), inferences on their specific, independent effects on child abuse potential should be made cautiously, especially due to the possible underlying contribution of emotional abuse. The relative effects of all forms of maltreatment history on psychopathology in non-clinical population have recently been assessed (Keyes et al., 2012), in terms of latent liability dimensions and specific psychiatric disorders. However, these relative effects have rarely been addressed concerning the potential for intergenerational child abuse. Our study aimed to investigate simultaneously the independent effects of each self-reported childhood maltreatment type on child abuse potential in non-clinical adults, and to examine the pathway of this relationship with dissociation as a possible mediator.

MATERIALS AND METHODS

Participants

The study involved a non-clinical sample of 164 adult participants, recruited from clusters of buildings located in the urban residential area of Nis (city in southern Serbia). This residential area has a well-established infrastructure with modern construction, elementary school, kindergarten and organized green surroundings, and was, therefore, selected assuming the decreased likelihood of the confounding effect of low socio-economic status, potentially a significant mediator of intergenerational child abuse (Zielinski, 2009). The inclusion criteria were the age of 25 to 65 years and being a parent of at least one child or adolescent (attending elementary school or high school), while the exclu-

sion criteria were reported diagnoses of psychotic disorder, mental retardation or dementia.

Out of 316 adult inhabitants who communicated with research assistants, 66 refused to participate in the study, 45 were excluded according to the exclusion criteria and 41 were excluded after data processing on the bases of showing extreme minimization or denial (score 3 on minimization/denial scale of the Childhood Trauma Questionnaire – CTQ). The final sample consisted of 49 males and 115 females, with a mean age of 39.91 ± 6.68 years, 15.48 ± 3.40 years of education, predominantly employed (82.3%), and with the youngest child's age of 9.19 ± 5.12 years.

The study was approved by the Ethical Committee of the Belgrade University School of Medicine. All participants gave informed consent and filled in the questionnaires with anonymously to ensure reliability, and all the obtained data are treated as confidential.

Instruments

Data concerning participants' gender, age, years of education, employment, age of the youngest child, and data on previous psychiatric treatment, were gathered through the general self-report questionnaire created for the purpose of this study.

The presence, type and intensity of child abuse in participants' history were retrospectively assessed by the Childhood Trauma Questionnaire (CTQ) (Bernstein and Fink, 1998). This 28-item, 5-point response scale instrument identifies five types of maltreatment by the age of 18 (emotional, physical and sexual abuse, emotional and physical neglect), each presented by a separate subscale. Each subscale was used as a continuous measure. This instrument provides an additional scale of minimization/denial, ranging from 0 to 3. Subjects with maximum scores on this scale were excluded from the study.

The Child Abuse Potential Inventory – CAPI (Milner, 1986) is a self-report instrument containing 160 items, answered in a forced-choice manner,

Table 1. Multiple linear regression model of adult child abuse potential, predicted by maltreatment scales and sociodemographics

Prediction model	Child abuse potential	
Model parameters	F=4.466; p=0.000 Adjusted R ² =0.226	
	Beta	p
Predictors		
Emotional abuse	0.414	0.000
Physical abuse	-0.094	0.325
Sexual abuse	-0.110	0.218
Emotional neglect	0.050	0.590
Physical neglect	0.117	0.195
Gender	0.038	0.631
Age	-0.080	0.393
Education years	-0.144	0.064
Employment	-0.118	0.116
Youngest child's age	0.128	0.163

aimed at measuring adult behavior and attitudes associated with child physical abuse. This study used the main scale of child abuse potential as a continuous variable.

The Dissociative Experiences Scale – DES (Bernstein and Putnam, 1986) includes 28 items on a frequency of various dissociative experiences. The items are answered by circling a percentage ranging from 0% to 100% at 10% intervals. The resulting scale of dissociative experiences is scored as an average.

The main statistical method used was multivariate linear regression to explore the partial effects of maltreatment types on child abuse potential with socio-demographics as control factors, preceded by bivariate Pearson's correlations. Analysis of mediator effects of dissociation in the relationship of emotional maltreatment history and child abuse potential, with socio-demographics and other maltreatment forms as control factors, was done by the method of Baron and Kenny (1986).

RESULTS

All of the maltreatment forms intercorrelated significantly (from $r=0.219$, $p=0.005$ between emotional neglect and sexual abuse, to $r=0.610$, $p=0.000$ be-

tween emotional and physical abuse).

All maltreatment scales were significantly related to child abuse potential ($r=0.367$, $p=0.000$ for emotional abuse, $r=0.175$, $p=0.025$ for physical abuse, $r=0.167$, $p=0.032$ for sexual abuse, $r=0.274$, $p=0.000$ for emotional neglect, and $r=0.250$, $p=0.001$ for physical neglect).

To explore the independent effects of each child maltreatment type, we analyzed linear regression models for child abuse potential, with maltreatment scales and socio-demographics as predictors (Table 1). The regression model was significant, explaining 22.6% of child abuse potential variance. Emotional abuse was the only significant independent predictor in the model.

To investigate the mediator role of dissociation in the relationship between emotional abuse (as the only significant maltreatment predictor) and child abuse potential, we conducted regression analyses between emotional abuse and dissociation, dissociation and child abuse potential, as well as between emotional abuse and child abuse potential for total and direct effects, with socio-demographic factors and other maltreatment scales as covariates (Fig. 1). Dissociation was significantly predicted by emotion-

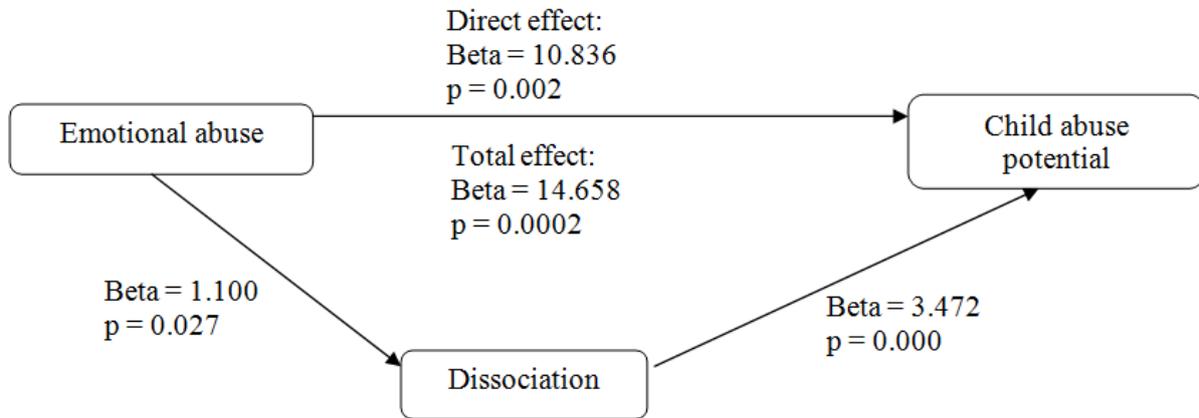


Fig. 1. Mediation model between emotional abuse and child abuse potential, with dissociation as a mediator, controlling for sociodemographics and other forms of maltreatment (according to Baron and Kenny, 1986)

al abuse, and significantly predictive of child abuse potential. After including dissociation in the model, the effect of emotional abuse on child abuse potential was partially reduced, but still significant (difference of Beta coefficients 3.822), indicating partial mediation by dissociation. The parameters of the overall model were as follows: Adjusted $R^2=0.308$, $F=6.878$, $p=0.000$.

DISCUSSION

The findings of this study are in accordance with results of other studies indicating that child abuse may travel through generations (dePaul and Domenech, 2000; Hall et al., 1998), since all of the maltreatment types were bivariate associated with child abuse potential. Maltreatment scales significantly intercorrelated, confirming the frequent co-occurrence of various types of maltreatment found by other authors (Teicher et al., 2006), and emphasizing the importance of exploring their effects independently.

The relative effects of childhood maltreatment on psychopathology have been examined by several studies, with findings suggesting that the effects of the most severe forms may be augmented by more subtle forms of abuse. Sexual and physical abuse predicted a number of deleterious outcomes in adult health behavior, but after controlling for other types

of abuse, the predicted outcomes were not as poor (Rodgers et al., 2004). The recent study (Keyes et al., 2012), which was one of the first to control the effects of all five maltreatment types on specific, multi-final psychopathology latent dimensions and disorders, identified sexual abuse as predictive for both internalizing and externalizing problems in both genders, physical abuse for externalizing problems in men and for internalizing problems in women, whereas emotional abuse was related to internalizing disorders only among females.

When it comes to the prediction of child abuse potential, the unique contributions of each abuse type independently have rarely been addressed. Levels of physical and sexual abuse were simultaneously investigated in some studies (Di Lillo et al., 2000; Hall et al., 1998), but without the control of emotional abuse. The study that took into account the effects of emotional maltreatment on child abuse potential reported that mothers with memories of emotional withdrawal did not have a higher abuse potential than those without such memories, except when accompanied by memories of severe physical punishment (dePaul and Capaldi, 2000). These assessments, however, were not controlled for all of the maltreatment forms and they referred to the emotional withdrawal, which is closer to the definition of emotional neglect than emotional abuse (Bernstein and Fink,

1998). After controlling for all maltreatment types and for the significant socio-demographic associates in our study, emotional abuse showed a significant unique predictive contribution to child abuse potential. Moreover, other forms of maltreatment that initially correlated to abuse potential showed no predictive effect after emotional abuse was partialled out.

Our findings comply with those demonstrating the insidious specific psychiatric outcomes of emotional abuse. Among the childhood maltreatment types, emotional abuse was shown to be the only significant predictor for pathological attitudes towards food (Kent et al., 1999), and it predicted more personality disorders in the group of substance abusers than the other maltreatment forms (Bernstein et al., 1998). It has been hypothesized that emotional abuse may be specific in communicating a lack of self-worth in children (Spertus et al., 2003), directly leading to negative cognitive schemas (Wright et al., 2009), and may represent the “core of child maltreatment” (Spertus et al., 2003).

Dissociation was repeatedly suggested to be an important mediator in the association between childhood trauma and adverse psychiatric outcomes, such as non-suicidal self-injury (Swannell et al., 2012), hallucinations (Perona-Garcelan et al., 2012), perpetuated intergenerational abuse (Egeland and Susman-Stillman, 1996). Dissociation enables the young victims of maltreatment to detach from traumatic experiences and be able to function in other domains, but it may result in poor adaptive functioning if remaining after the trauma (Narang and Contreras, 2005); it was shown to mediate the relationship between physical abuse and child abuse potential (Narang and Contreras, 2000). In our study, emotional abuse was significantly predictive of dissociation, complying with the findings of other studies (Sar et al., 2009), and dissociation was found to be a partial mediator between emotional abuse and child abuse potential, leaving the remaining part to other possible mediators. There has been evidence associating child abuse with altered development of executive functions, which could have implications for the nature and persistence of the psychopathology asso-

ciated with abuse and poor self-control (Mezzacappa et al., 2001). Specific early maladaptive cognitive schemas were found to mediate a path between emotional maltreatment and psychopathological symptoms (Wright et al., 2009). Emotion regulation skills and the capability for to mentalize the psychological states of others are hypothesized to be involved in intergenerational transmission of aggression (Lee and Hoaken, 2007). These may be directions for further investigation of the mechanisms through which emotional childhood abuse affects abuse potential in adulthood.

There are several limitations of this study that should be addressed. To start with, it relied on retrospective self-report measures of early experiences, which brings attention to potential fabrications or memory bias. False-positive results, however, may be an insignificant risk arising from such assessments (Teicher et al., 2006), while extreme false-negative results were controlled by the minimization/denial scale of the applied instrument. Moreover, the participants' motivation to give socially desirable answers may have been decreased by the anonymity of the assessment. Furthermore, this study used a non-clinical sample recruited from educated, employed, urban strata, without the representative sampling methods, which prevents generalization of the conclusions to other groups of subjects. This kind of sampling, on the other hand, could be considered as an advantage, enabling the omission of potentially intervening important child abuse correlates, such as low socio-economic status (Zielinski, 2009). Finally, the study did not control additional factors that could moderate the relative effects of childhood maltreatment on child abuse potential, such as genetically predisposed behavioral childhood characteristics shown to influence both aggressiveness in adulthood and the exposition to early maltreatment by stimulation of coercive exchange in parenting (Beauchaine et al., 2009).

In accordance with recently recognized harmful effects of emotional childhood abuse on adult psychopathological outcomes, our study has shown that it may also play an important and unique role in

the intergenerational cycle of abuse, partly mediated by dissociation. Replicating the findings in a larger study, with multi-informant measures and additional mediators, could contribute to further analysis of emotional abuse as a potentially specifically toxic facet of child maltreatment that could serve as a core maltreatment target in intergenerational abuse prevention. Treating dissociative elements may contribute to preventing the malignant repetition of childhood history.

REFERENCES

- Arata, C.A., Langhinrichsen-Rohling, J., Bowers, D. and N. O'Brien (2007). Differential correlates of multi-type maltreatment among urban youth. *Child. Abuse. Negl.* **31**, 393-415.
- Baron, R.M. and D.A. Kenny (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic and statistical considerations. *J. Pers. Soc. Psychol.* **51**, 1173-1182.
- Beauchaine, T.P., Klein, D.N., Crowell, S.E., Derbidge, C. and L. Gatzke-Kopp (2009). Multifinality in the development of personality disorders: a Biology x Sex x Environment interaction model of antisocial and borderline traits. *Dev. Psychopathol.* **21**, 735-770.
- Bernstein, D. and L. Fink (1998). *Childhood Trauma Questionnaire: A Retrospective Self-Report. Manual*. The Psychological Corporation, Harcourt Brace and Co, San Antonio.
- Bernstein, D., Stein, J. and L. Handelsman (1998). Predicting personality pathology among adult patients with substance use disorders. Effects of childhood maltreatment. *Addict. Behav.* **23**, 855-868.
- Bernstein, E.M. and F.W. Putnam (1986). Development, reliability and validity of a dissociation scale. *J. Nerv. Ment. Dis.* **174**, 727-735.
- Boulet, M.C., Ethier, L.S. and G. Couture (2004). Life events and trauma in chronic negligent mothers. *Sante. Ment. Que.* **29**, 221-242.
- Caliso, J.A. and J.S. Milner (1992). Childhood history of abuse and child abuse screening. *Child. Abuse. Negl.* **16**, 647-659.
- Clemmons, J.C., DiLillo, D., Martinez, I.G., DeGue, S. and M. Jeffcott (2003). Co-occurring forms of child maltreatment and adult adjustment reported by Latina college students. *Child. Abuse. Negl.* **27**, 751-767.
- Collin-Vézina, D. and M. Cyr (2003). Current understanding about intergenerational transmission of child sexual abuse. *Child. Abuse. Negl.* **27**, 489-507.
- dePaul, J. and L. Domenech (2000). Childhood history of abuse and child abuse potential in adolescent mothers: a longitudinal study. *Child. Abuse. Negl.* **24**, 701-713.
- DiLillo, D., Tremblay, G.C. and L. Peterson (2000). Linking childhood sexual abuse and abusive parenting: the mediating role of maternal anger. *Child. Abuse. Negl.* **24**, 767-779.
- Egeland, B. and A. Susman-Stillman (1996). Dissociation as a mediator of child abuse across generations. *Child. Abuse. Negl.* **20**, 1123-1132.
- Hall, L.A., Sachs, B. and M.K. Rayens (1998). Mothers' potential for child abuse: the roles of childhood abuse and social resources. *Nurs. Res.* **47**, 87-95.
- Kent, A., Waller, G. and D. Dagnan (1999). A greater role of emotional than physical or sexual abuse in predicting disordered eating attitudes: the role of mediating variables. *Int. J. Eat. Disord.* **25**, 159-167.
- Keyes, K.M., Eaton, N.R., Krueger, R.F., McLaughlin, K.A., Wall, M.M., Grant, B.F. and D.S. Hasin (2012). Childhood maltreatment and the structure of common psychiatric disorders. *Br. J. Psychiatry.* **200**, 107-115.
- Lee, V. and P. Hoaken (2007). Cognition, emotion and neurobiological development: mediating the relation between maltreatment and aggression. *Child. Maltreat.* **12**, 281-298.
- Mezzacappa, E., Kindlon, D. and F. Earls (2001). Child abuse and performance task assessments of executive functions in boys. *J. Child Psychol. Psychiatry.* **42**, 1041-1048.
- Milner, J. (1986). *The Child Abuse Potential Inventory: Manual*, 2. Psytech, Webster, NC.
- Milner, J.S., Robertson, K.R. and D.L. Rogers (1990). Childhood history of abuse and adult child abuse potential. *J. Fam. Violence.* **5**, 15-34.
- Narang, D.S. and J.M. Contreras (2000). Dissociation as a mediator between child abuse history and adult abuse potential. *Child. Abuse. Negl.* **24**, 653-665.
- Narang, D.S. and J.M. Contreras (2005). The relationships of dissociation and affective family environment with the intergenerational cycle of child abuse. *Child. Abuse. Negl.* **29**, 683-699.
- Newcomb, M.D. and T.F. Locke (2001). Intergenerational cycle of maltreatment: a popular concept obscured by methodological limitations. *Child. Abuse. Negl.* **25**, 1219-1240.
- Oliver, J.E. (1993). Intergenerational transmission of child abuse: rates, research and clinical implications. *Am. J. Psychiatry.* **150**, 1315-1324.
- Pears, K. and D. Capaldi (2001). Intergenerational transmission of abuse: A two-generational prospective study of an at-risk sample. *Child. Abuse. Negl.* **25**, 1439-1461.

- Perona-Garcelan, S., Carrascoso-Lopez, F., Garcia-Montes, J.M., Ductor-Recuerda, M.J., Lopez-Jimenez, A.M., Vallina-Fernandez, O., Perez-Alvarez, M. and M.T. Gomez-Gomez (2012). Dissociative experiences as mediators between childhood trauma and auditory hallucinations. *J. Trauma. Stress.* **25**, 323-329.
- Rodgers, C.S., Lang, A.J., Laffaye, C., Satz, L.E., Dresselhaus, T.R. and M.B. Stein (2004). The impact of individual forms of childhood maltreatment on health behavior. *Child. Abuse. Negl.* **28**, 575-586.
- Sar, V., Islam, S. and E. Oztürk (2009). Childhood emotional abuse and dissociation in patients with conversion symptoms. *Psychiatry. Clin. Neurosci.* **63**, 670-677.
- Spertus, I.L., Yehuda, R., Wong, C.M., Halligan, S. and S.V. Seremetis (2003). Childhood emotional abuse and neglect as predictors of psychological and physical symptoms in women presenting to a primary care practice. *Child. Abuse. Negl.* **27**, 1247-1258.
- Swannell, S., Martin, G., Page, A., Hasking, P., Hazell, P., Taylor, A. and M. Protani (2012). Child maltreatment, subsequent non-suicidal self-injury and the mediating roles of dissociation, alexithymia and self-blame. *Child. Abuse. Negl.* **36**, 572-584.
- Teicher, M., Samson, J., Polcari, A. and C. McGreenery (2006). Sticks, stones and hurtful words: relative effects of various forms of childhood maltreatment. *Am. J. Psychiatry.* **163**, 993-1000.
- Teicher, M.H., Andersen, S.L., Polcari, A., Anderson, C.M., Navalta, C.P. and D.M. Kim (2003). The neurobiological consequences of early stress and childhood maltreatment. *Neurosci. Biobehav. Rev.* **27**, 33-44.
- Wright, M.O., Crawford, E. and D. Del Castillo (2009). Childhood emotional maltreatment and later psychological distress among college students: the mediating role of maladaptive schemas. *Child. Abuse. Negl.* **33**, 59-68.
- Zielinski, D.S. (2009). Child maltreatment and adult socioeconomic well-being. *Child. Abuse. Negl.* **33**, 666-678.

