

Influences of Each Child Abuse Subcategory on Later Development of Personality Pathology and Depressive Affect

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個々のタイプの児童虐待が後のパーソナリティ病理と
抑うつ感情に及ぼす影響

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Abstract

Based on the facts that child abuse rarely exists in isolation from one or more of the other child abuse subcategories, a depressive affect at some particular point includes both reactively provoked one and persistent one, and depressive affect and borderline personality organization are inseparable, this study explored the influence of each child abuse subcategory on later development of borderline personality organization, as well as on persistent depressive affect, examining whether the causality between some particular child abuse subcategory and depression is direct or indirect, i.e. mediated by borderline personality pathology. Three hundred four Japanese university students were the target for analysis. Questionnaire surveys were conducted over a six-week period on three occasions. Structural equation modeling was used for the statistical analysis. Self-Rating Depressive Scale (SDS), Inventory of Personality Organization (IPO), and Child Abuse and Trauma Scale (CATS) were used for assessing depressive affects, borderline personality organization, and past experience of child abuse, respectively. "Neglect and Emotional Abuse" had a deteriorating effect on children's later mental health. "Sexual Abuse" and "Authoritarianism" had indirect influence via borderline personality organization. Although "Physical Punishment and Scolding" and "Marital Disharmony" per se did not have a significant negative impact on later mental health, it should be noted that they are frequently accompanied by "Neglect and Emotional Abuse."

Keywords: Child Abuse, Borderline Personality Organization, Persistent Depressive Affect

Introduction

Child abuse has been examined in terms of its influences on the development of later mental disorders as well as personality pathologies, in particular, depression and borderline personality disorder. There seems to be a general consensus that the degree and nature of the influences depend on the type of child abuse. Therefore, when taking a general view of previous research which examined the influence of child abuse on later mental health, it would be better to treat each child abuse subcategory separately. Usually, child abuse is classified into four subcategories: emotional abuse, sexual abuse, physical abuse, and neglect.

Among the several types of child abuse, in recent years, emotional abuse seems to have drawn attention due to its considerable impact on the development of later mental health problems. Although Wingenfeld et al.¹ did not identify its predicting effect on borderline personality disorder (BPD), many researchers demonstrated its effects on the later development of depression¹⁻⁶ and borderline personality pathology^{2,7,8}. Shapero et al.⁴ showed the result that the more severe childhood emotional abuse university students had suffered, the more likely they were to become depressed when confronted by current dependent stressors, i.e. those to which characteristics of individuals contribute. Some studies showed an indirect pathway from emotional abuse to borderline pathology: i.e. intermediated by difficulties with emotional regulation^{3,8}. As to emotional abuse and depression, Crow et al.³, showed a direct relationship between them. Calvete⁹, targeting adolescent subjects, focused on maladaptive schema as a mediator between emotional victimization and depression, but only emotional abuse by peers had a significant effect on depression, while that by parents did not.

Sexual abuse has kept its distinct position among child abuse subcategories regarding its relation to later mental disorders, which include not only depression and borderline personality disorder, which we intend to discuss here, but also dissociation, eating disorder, and post-traumatic stress disorder¹. Its influence, or lacking of it, on depression and borderline personality pathology, the main theme of our research, seems to be a source of controversy. Zanarini et al.'s study⁷ demonstrated that compared to control subjects, patients with borderline personality disorder were more likely to have past experience of sexual abuse. Some other studies concluded experience of sexual abuse was a risk factor in later development of depression^{5,10-14}. Wingenfeld et al.¹ also demonstrated that it predicted both depression and borderline personality disorder. Cong et al.¹⁵, choosing Chinese women as their study sample, proved that childhood sexual abuse was associated with recurrent major depression, and this association increased with greater severity of the abuse. Zuravin and Fontanella¹⁶ demonstrated childhood sexual abuse's impact on major depressive episode among low-income women. On the other hand, some were not able to find its influences on the development of borderline personality disorder⁸ and depression^{4,17}.

Physical abuse was the originally identified type of child abuse, the first documented case of which was the incident of Mary Ellen^{18,19}. As with sexual abuse, no consensus has yet been reached on the influence of physical abuse on depression and borderline pathology. Allen and

Tarnowski²⁰, targeting child subjects, showed that physically abused children were more likely to have depressive symptoms. Zanarini et al.⁷ demonstrated that compared to control subjects, patients with borderline personality were more likely to have experiences of physical abuse. Some researchers did not identify its significant impact on borderline pathology⁸, and depression^{3,4}. These studies which failed to identify the impact on later mental health, have taken into account the co-occurrence of more than one type of abuse subcategories, which would be addressed separately below.

The last category of child abuse, neglect, which used to concentrate only physical, is recently more likely to indicate emotional instances, which include indifference, rejection, and ignoring. As to physical neglect, Crow et al.³ concluded that they did not find its significant effect on depression, or emotional dysregulation. As to emotional neglect, Allen² showed that parents' ignoring behavior during childhood predicted both BPD and depression in early adulthood. Khaleque²¹ conducted a meta-analysis of 33 studies relevant to the relationship between perceived parental indifference/neglect, and children's negative personality disposition and psychological maladjustment, concluding that there were significant relationships.

As an index of child abuse, we adopted "Child Abuse and Trauma Scale (CATS)"²² for this study. We conducted a factor analysis of the Japanese version of the CATS, and found that we could extract five CATS subscales, specifically: "Neglect and Emotional Abuse", "Physical Punishment and Scolding", "Sexual Abuse", "Authoritarianism", and "Marital Disharmony." The "Physical Punishment and Scolding" would include the concept of physical abuse, although its purview is wider than physical abuse; it also includes non-physical punishment. The CATS does not include the items of physical neglect, and emotional neglect is integrated into "Neglect and Emotional Abuse". The CATS includes "Sexual Abuse." The other two factors, "Authoritarianism" and "Marital Disharmony", have rarely been the targets of studies examining child abuse and its influence on later mental health. However, there are a few studies in Japan which have examined their influence, although they did not use CATS. Concerning the "Authoritarianism", Uji, Sakamoto, Adachi, and Kitamura²³, using Parental Authority Questionnaire²⁴ which consists of three factors, authoritative parenting, authoritarian parenting, and permissive parenting, demonstrated that authoritarian parenting impacted a child mental health into adulthood. It increased the severity of symptoms and also the risk to self and others, while decreasing life functioning level and psychological well-being among Japanese adult population. Acknowledging the difference of the adopted scale, it was our purpose to see whether this result would be replicated among Japanese university students using CATS. Concerning the "Marital Disharmony" between mother and father, Lu, Uji and Kitamura²⁵ demonstrated that attitudes between spouses influenced their child rearing style, which could be assumed to have influence on the later development of child personality pathology as well as depressive symptoms.

Three main issues arose in the majority of the above studies: how to view and treat depressive affect at a particular point, coexistence of two or more child abuse subcategories,

and the inseparable relationship between depression and borderline pathology. Each is explained in detail below as well as how we developed our hypothesis model (Figure 1) to resolve these issues.

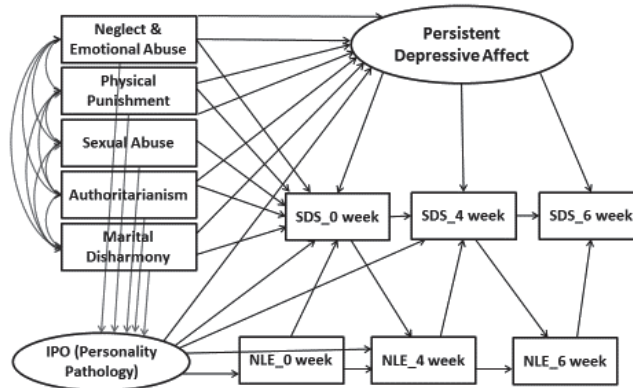


Figure 1. Hypothesis model for the relationships between CATS subscales, IPO, persistent depressive affect, and NLEs (Negative Life Events)
 Note: "IPO" represents the latent variable derived from the five IPO subscale scores.

The first issue is that the frequency and severity of depressive symptoms are usually influenced by a stressor, defined as Negative Life Event (NLE) in the current study, immediately before the assessing point. Some depressive symptoms decrease or disappear as the intensity of the stressor decreases. To distinguish persistent depressive affect from one provoked by the preceding stressor, we assessed depressive symptoms at three points during a six week period. As can be seen in Figure 1, we hypothesized persistent depressive affect as a latent variable in evaluating this hypothesis model using structural equation modeling (SEM). To be defined depressive affect as persistent, depressive affect had to persist for more than six weeks. Three observed variables, denoted as "SDS_0 week", "SDS_4 week" and "SDS_6 week", were the depressive affects evaluated at each point, influenced not only by persistent depressive affect but also preceding stressors, i.e., "NLE_0 week", "NLE_4 week", and "NLE_6 week", respectively. According to Hammen's stress generation model²⁶⁻²⁸, depressive affects are caused by NLEs and vice versa. People with depressive symptoms actually generate NLEs. Based on this, we hypothesized that NLEs and SDSs would react with each other (Figure 1).

The second issue is that, as Kuo et al.⁸ noted, "different forms of abuse rarely occur in isolation." The exception is that "childhood emotional abuse is more likely to occur independent of other forms of abuse⁸." They wrote that physical abuse and sexual abuse would rarely happen by themselves. With this in mind results that physically abused children were more likely to show depressive symptoms²⁰ should not be easily accepted. It could be probable that the physical abuse was accompanied by emotional abuse experience which had a significant contribution in developing depression. In order to see the unique effect of specific types of child abuse on later psychopathology, some researchers adopted structural equation modeling⁸, others used regression analysis^{3,4}, as their statistical technique. These studies, as briefly

referenced above, failed to prove the independent contribution of physical abuse to depression³, or that of sexual abuse and physical abuse to borderline personality disorder⁸, or that of sexual abuse and physical abuse to depression⁴. Zuravin and Fontanella¹⁶, however, negated “third variable hypothesis”, which hypothesized that “CSA [child sexual abuse] would fail to have a significant relationship with psychological difficulties—after controlling for family characteristics and other maltreating experiences” including emotional neglect, physical abuse, physical neglect, and verbal abuse, by using logistic regression analysis. It appears to be controversial regarding whether there is a unique and independent contribution of each form of child abuse on later psychopathology, other than emotional abuse or emotional neglect. Thus, in order to clarify an independent contribution of each child abuse to later psychopathology, we adopted SEM to analyze the diagram Figure 1, which hypothesized co-variances between any pair of child abuse subtypes. These co-variances enabled us to see whether there is an independent contribution by each type of abuse on later psychopathologies.

The third issue is that most previous research which chose both borderline pathology and depression as indices of psychopathology treated the two concepts as distinct units, although their comorbidity is generally accepted^{1,7}. Of particular note is that, different from depressive mood experienced by patients without BPD, depressive mood experienced by those with BPD is characterized by self-condemnation, emptiness, abandonment fears, self-destructiveness, and hopelessness²⁹. Not only patients with BPD, but also those with other types of personality disorder such as narcissistic personality disorder and histrionic personality disorder also experience depressive mood in stressful situations³⁰. It is appropriate to conclude that personality pathologies are the foundation for developing a depressive mood, and it is worth examining whether the depressive mood experienced by those with BPD is persistent or reactive provoked by NLE, or both. Now we come to the question of whether, when the experience of each child abuse category contributes to a depressive mood, the relationship is direct or indirect by way of personality pathologies already in existence. For assessing personality pathologies, Inventory of Personality Organization (IPO)³¹⁻³³, which consists of five subcategories: “reality testing”; “identity diffusion”; “primitive defenses”; “moral value”, and “aggression”, was applied in this study. A higher score indicates that the individual’s personality pathology is closer to the psychotic personality and occasionally within it, with a lower score indicating personality pathology closer to the neurotic personality and also occasionally within it. It would be assumed that individuals with some specific personality disorders, such as borderline personality disorder or narcissistic personality disorder would have some problems identified by IPO. In our hypothesis diagram (Figure 1), we drew the causal relationships between IPO and persistent depressive affect as well as between IPO and SDS_0 week. These causal relationships enabled us to see whether each type of abuse contributes in developing personality pathology and subsequent depression, and/or depression without mediation by personality pathology.

To summarize, the purposes of this study were to explore the influence of each child abuse

subcategory on later mental health problems, and to see whether, if some particular type of child abuse showed some effect on the development of later persistent depressive affect, the effect was direct or indirect (mediated by borderline personality organization), or both (Figure 1).

Methods

Participants

We performed a longitudinal follow-up study on depressive affects and suicidality in a population of Japanese university students, using a nine-wave four-month prospective design. Subjects were assured of anonymity and participation was voluntary. Depressive affect and NLE were assessed at seventh, eighth, and ninth waves. The duration between seventh and eighth wave was four weeks, and between eighth and ninth was two weeks. IPO was included in the seventh wave questionnaire. The CATS was included in the second wave questionnaire. A total of 397 attended on every occasion (second, seventh, eighth, and ninth). Three hundred four university students who completed every item were the target of the analysis. The population included 55 men and 249 women, with a mean age of 18.9 years (SD: 1.27).

Measurement

IPO³¹⁻³³

We used Japanese version of IPO consists of 37 items³⁴. Each item ranges from “never true = 1” to “always true = 5.” Detailed information on both the original and Japanese version of IPO is provided in the Igarashi et al.’s article³⁴.

SDS³⁵

SDS is an inventory for assessing the frequency of depressive symptoms, and each item score ranges from “never = 1” to “almost always = 4.” Among the 20 SDS items, only seven items classified in the affective category were chosen in this study³⁶.

The most distressful NLE

This was assessed by an ad hoc item: “Consider the most undesirable, upsetting, depressing, or saddening event you experienced since the last questionnaire and score its impact on you from 0 (not stressful at all) to 100 (extremely stressful).”

CATS²²

The CATS is a self-report measure consisting of 38 items on a 5-point scale from “never = 0” to “always = 4.” The Japanese version of the CATS consists of five subscales: (1) Neglect and Emotional Abuse (14 items), (2) Physical Punishment and Scolding (10 items), (3) Sexual Abuse (six items), (4) Authoritarianism (five items), and (5) Marital Disharmony (three items).

Results

The Pearson’s correlations of each CTAS subcategory score with IPO, NLE, and SDS scores (Table 1)

All the subcategories of CATS significantly correlated with IPO score with positive values.

All the subcategories with exception of “Authoritarianism” had significant correlations with SDS scores of all the three occasions. As for the NLE score, only “Neglect and Emotional Abuse” and “Sexual Abuse” had positive correlations with NLE scores of one or two occasions.

Table 1: Correlations of each child abuse subscale score with NLE, SDS, and IPO scores.

	Neglect and Emotional Abuse	Authoritarianism	Marital Disharmony	Sexual Abuse	Physical Punishment and Scolding
Mean (SD)	24.4 (9.00)	12.3 (4.02)	4.4 (2.04)	6.3 (1.32)	16.2 (6.09)
Male	23.1 (9.28)	12.8 (4.23)	4.2 (1.84)	6.8 (2.24)	16.6 (7.01)
female	24.6 (9.10)	12.1 (3.95)	4.4 (2.03)	6.2 (1.07)	16.0 (5.90)
IPO	.42**	.20**	.23**	.20**	.30**
NLE_0 week	.13**	.00	.06	.06	.07
NLE_4 week	.15**	-.04	.13	.12*	.10
NLE_6 week	.08	-.01	.08	.10	.05
SDS_0 week	.34**	.07	.19**	.13*	.21**
SDS_4 week	.34**	.11	.23**	.17**	.20**
SDS_6 week	.34**	.10	.22**	.22**	.20**

Note: * $p < .05$, ** $p < .01$. “IPO” stands for “Inventory of Personality Organization,” “NLE” stands for “negative life event,” and “SDS” stands for “Self-Rating Depression Scale.”

The structural equation modeling (Figure 2)

Only “Neglect and Emotional Abuse” had a direct significant impact on persistent depressive affect (the standardized causal coefficients were. 22 ($p < .01$)). None of the child abuse subcategories had a significant direct influence on SDS_0 week. “Neglect and Emotional Abuse”, “Sexual Abuse”, and Authoritarianism” had a statistically direct significant influence on “IPO”, which in turn directly influenced both persistent depressive affect (the standardized

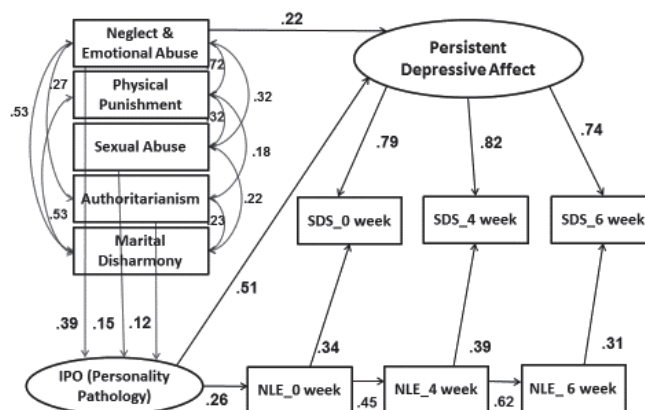


Figure 2: Results of structural equation modeling

causal coefficient was .51($p < .01$), as well as NLE_0 week (the standardized causal coefficient was .26 ($p < .01$)), which further influenced NLE_4 week, and NLE_6 week. Among the correlations between every pair of child abuse subcategories, the correlation between “Sexual Abuse” and “Authoritarianism” was not significant. The other correlations were statistically significant with positive values. The goodness of fit of the model to the data was as follows: .934 for GFI, .897 for AGFI, and .058 for RMSEA, all of which indicated favorable fits.

Discussion

This study demonstrates that “Neglect and Emotional Abuse”, “Authoritarianism” and “Sexual Abuse” had unique impacts on child’s mental health into adulthood, whereas “Physical Punishment and Scolding” and “Marital Disharmony” did not.

“Physical Punishment and Scolding” had a significant correlation with “IPO” score and “SDS” score in every instance when not taking into account the coexistence (Table 1). However, when taking into account the coexistence with other child abuse subcategories, using structural equation modeling (Figure 2), it no longer showed any effects on “IPO” and “persistent depressive affect”. The reason for this disparity can be explained as follows. “Physical Punishment and Scolding” showed a covariance with a considerably high positive value with “Neglect and Emotional Abuse” (the standardized covariance was .72, figure 2), suggesting the frequent coexistence of the two subcategories, which brought about ostensible correlation of “Physical Punishment and Scolding” with both the SDS score and IPO score (Table 1). We should take into account that “Neglect and Emotional Abuse” could be occurring in the case of the existence of “Physical Punishment and Scolding”.

Regarding “Marital Disharmony”, similar results to “Physical Punishment and Scolding” were obtained: it had significant correlations with IPO and SDS scores at every instance, when not taking into account the coexistence of the other child abuse subcategories. However once the coexistence was taken into account using SEM, it did not have any significant effect on IPO and persistent depressive affect. As with “Physical Punishment and Scolding”, “Marital Disharmony” showed a covariance with a significantly high positive value with “Neglect and Emotional Abuse” (the standardized covariance was .53, (Figure 2). When “Marital Disharmony” is identified, clinically, it is important to examine whether “Neglect and Emotional Abuse” coexist.

Emotional abuse, as mentioned in “Introduction”, is different from other forms of child abuse, in terms of the probability of it not being accompanied by other forms of child abuse, although sexual abuse and physical abuse are frequently accompanied by emotional abuse^{4,8}. While “Neglect and Emotional Abuse”, like some other forms, had an indirect impact on persistent depressive affect by way of personality pathology, it was the only one form of child abuse which had a direct impact on persistent depressive affect. Regardless of whether other types of child abuse co-exist, clinicians should keep in mind that it could have an intense impact by itself on child’s later mental health into adulthood. In addition, when a patient with past

experience of “Neglect and Emotional Abuse” shows a persistent depressive affect, clinicians should not forget to examine whether a hidden personality pathology exists.

The result of this study concerning the influence of “Sexual Abuse” on later psychopathologies was in accord with the previous research: it first contributed in developing personality pathology which then developed persistent depressive affect. It did not have direct influence on later persistent depressive affect. This suggests to us the importance of evaluating child sexual abuse victims’ defense mechanisms, which characterize the personality organization level. It is also required for clinicians to be mindful of the possibility that when a sexual abuse victim shows persistent depressive affect there may be personality pathology behind it.

The result of this study regarding “Authoritarianism” was similar to “Sexual Abuse”: it influenced the development of BPO, which then contributed to inducing persistent depressive affect. The result of this study was valuable, being the first to show that “Authoritarianism” had some influence on inducing personality pathology.

To summarize, “Neglect and Emotional Abuse”, “Sexual Abuse”, and “Authoritarianism” were identified to have influence on developing personality pathology, which further contributed to developing persistent depressive affect. Furthermore, “Neglect and Emotional Abuse” had a direct impact on persistent depressive affect. The clinicians should be aware of examining whether or not the existence of persistent depressive affect, personality pathology, and co-existing of two or more child abuse subcategories, when they see patients with past experience of at least one child abuse subcategory.

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