Asian Journal of Psychiatry 6 (2013) 99–105

Contents lists available at SciVerse ScienceDirect

Asian Journal of Psychiatry

journal homepage: www.elsevier.com/locate/ajp

Testing a cascade model of linkage between child abuse and negative mental health among battered women in Japan

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ARTICLE INFO

Article history:
Received 20 May 2012
Received in revised form 20 August 2012
Accepted 2 September 2012

Keywords:
Child abuse
Domestic violence
Female
Mental health
Structural equal modeling

ABSTRACT

This study examined the following hypotheses: (1) a child abuse history (CAH), domestic violence (DV), and child abuse by an intimate partner might have a crucial and specific influence but act differently on women's negative mental health; (2) CAH, DV, child abuse by an intimate partner, and negative mental health might be predictors of maternal child abuse, with complex interactions. A self-administered questionnaire survey was conducted among a sample of mothers ($N = 304$) and their children ($N = 498$) staying in 83 Mother–Child Homes in Japan to assess the women's CAH and DV experiences, along with their current mental health problems, including dissociated, depressed, and traumatic symptoms. A structural equation modeling (SEM) was adapted to test whether a complex theoretical model fits the actual relationship among a set of observed measures. Our model confirmed the linkage with broader aspects of violence within the family such as CAH and DV, focusing on women's mental health problems reported by them. In addition, CAH, DV, child abuse by intimate partner, and maternal mental health might have a crucial and specific but act influence on maternal child abuse.

1. Introduction

Child abuse remains a serious public health and social problem in Japan as well as all over the world (Fukunaga et al., 1992; Berger et al., 1994; Matsumoto et al., 2004; Fujiwara, 2007). When serious incidents occur, the details are reported sensationally by mass media, and many people are lastingly affected. Despite the effort of researchers, therapists, and child advocates, various types of child abuse continue (Kaplow and Widom, 2007). It is well-known that the impact of abuse and neglect may cause childhood trauma and have negative consequences later on in life (Nagy et al., 1995; Goodkind et al., 2006; Herba et al., 2007). According to Adverse Childhood Experiences (ACEs) study (Felitti et al., 1998; Foege, 1998), ACEs are the one of the crucial determinants of the health and social well-being of the nation. For example, it revealed that more than a 500% increase in adult alcoholism is related in a strong, graded manner to childhood abuse and neglect (Anda et al., 1999).

Domestic violence (DV) is becoming serious issue in Japan (Kitayama et al., 2006, 2007). There is growing recognition that a number of Japanese women are victims of DV (Uno et al., 2004; Yamawaki et al., 2009). According to a survey on DV involving among 4500 people in 1998 by the Prime Minister's Office, one third had experienced DV, and 5% of those feared for their life. According to The World's Women 2010 (Statistical Annex Table 6.A, 6.E) edited by United Nations, in Republic of Korea, incident rate of domestic physical violence and sexual abuse are 16% and 7%, respectively. This statistics shows other East Asian countries have same level of incident rate. A number of studies have revealed that DV had a negative influence on women's mental health outcomes, such as traumatic and depressive symptoms, suicide attempts, and alcohol and/or drug dependence (Pico-Alfonso et al., 2006; Weich et al., 2009).

Attention should be paid to the harmful relationship between a child abuse history (CAH) and domestic violence (Narang and Contreras, 2000). Empirical research have suggests that child maltreatment has a significant negative impact directly on women's health in childhood, adolescence, and adulthood (Arias, 2004). Further, childhood maltreatment is a critical risk factor in subsequent victimization in adulthood (Saunders, 1994a; Walker et al., 1999; Smith et al., 2000; Connell et al., 2009). The harmful effects of physical and sexual victimization in adulthood are marked, especially among women, and they appear to be compounded when there is a history of childhood abuse (Duncan et al., 1996; Acierno et al., 2007).

One study found that the rate of child abuse by mothers who were beaten is at least double that of mothers whose husbands did

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http://dx.doi.org/10.1016/j.ajp.2012.09.004

not assault them (Vissing et al., 1991). Family violence such as child abuse and DV might seriously impact women's mental health in combination with their CAH (Duncan et al., 1996; Banyard et al., 2008), which might be connected with child abuse by themselves. Although elucidation of the mechanism is one of the most important research issues, few studies have been successfully conducted to clarify manifest the relationships among measures.

The present study examined the following hypotheses: (1) CAH, DV, and child abuse by an intimate partner might have a crucial and specific influence and impact on women's negative mental health in a unique way; (2) CAH, DV, child abuse by an intimate partner, and negative mental health might be predictors of maternal child abuse showing a complex interaction, revealing a temporal link among forms of violence. The purpose of this study was to investigate the causal association between maternal child abuse and negative factors such as CAH and DV in Japanese women using a structural equation modeling.

2. Methods

2.1. Sample

Details of the study procedure were previously described (Fujiwara et al., 2012). The setting of this study was all the Mother–Child Home in Japan ($N = 83$), which are welfare facilities for mothers and children experiencing family problems (e.g., DV, child abuse by the father, and a single mother with financial problems), where they can stay and get assistance to become self-supporting. Questionnaires were sent to a sample of 421 mothers who agreed to participate in this study. A total of 340 mothers completed the survey (80.1%). In addition, mothers were asked to respond to the questionnaires on each child, i.e., if a mother had two children, the mother completed two questionnaires. In total, 665 child questionnaires were collected. The child questionnaire completed by the mother was given a maternal ID. So it could be linked with the mother's questionnaire. To maintain anonymity, respondents were instructed to work on the survey, which required no formal consent, alone; thus, no support was provided for the completion of the survey.

2.2. Measurements

2.2.1. Childhood abuse history (CAH)

CAH was assessed using the following seven questions: (1) I was a victim of violence from my parents (including step-parents); (2) I was ignored or refused attention by my parents; (3) My parents insulted me verbally; (4) I experienced violence from my parents severe enough to require hospital treatment; (5) I have been deprived of food or warm cloths; (6) I have experienced forced sexual contact by a parent (sexual contact includes sexual intercourse, petting, exposure of genitals, and taking naked pictures); and (7) I have experienced forced sexual contact with an adult other than a parent. Each question was answered employing a 1–4 Likert scale, ranging from 1, not at all; 2, rarely; 3, sometimes; to 4, frequently. These questions were created based on the Childhood Trauma Questionnaire (Bernstein et al., 1994), but modified to suit the Japanese language and minimized to 7 questions to reduce the burden on the respondents. The total history of childhood abuse was calculated by the summation of the responses to these 7 questions. Cronbach's alpha for this scale is 0.78. Further, to separate who did or did not have CAH, those who answered "rarely," "sometimes," or "frequently" for (4)–(7) and "sometimes" or "frequently" for questions (1)–(3) were coded as having CAH.

Furthermore, CAH was subdivided into physical abuse, neglect, psychological abuse, and sexual abuse. Survey questions (1) and (4) were used for physical abuse, (5) was used for neglect, (2) and (3) were used for psychological abuse, and (6) and (7) were used for sexual abuse. If each subscale had 2 questions, the responses for each item were added. The same cut-off was used for the dichotomization of each subtype of CAH, as mentioned above.

2.2.2. Experience of DV

Experience of DV was assessed employing the following four questions: (1) My husband or partner was sufficiently violent toward me to cause injury, (2) My husband or partner insulted me strongly enough to cause psychological harm, (3) I perceived a strong threat from my husband or partner, and (4) My husband or partner forced me to have sexual contact. Each question was answered on a 1–4 Likert scale, ranging from 1, not at all; 2, rarely; 3, sometimes; to 4, frequently. These questions were created based on the Index of Spouse Abuse (Hudson and McIntosh, 1981), but modified to suit the Japanese language, and minimized to 4 questions to reduce the burden on the respondents. Summation of the responses to these questions was used as a scale to indicate the respondent's experience of DV. Cronbach's alpha for this scale was 0.86. Further, to identify whether or not respondents had experienced DV, those who answered "not at all" for all 4 questions were coded as not having DV.

2.2.3. Women's mental health problems

Women's mental health problems were classified based on dissociated, depressive, or traumatic symptoms. Questions used for this assessment were created based on DSM-IV, and are shown in Appendix 1. Symptoms of dissociation when women take care of children were assessed by the summation of responses to 10 questions answered using a 1–4 Likert scale, ranging from 1, not at all; 2, rarely; 3, sometimes; to 4, frequently. Similarly, depressive and traumatic symptoms were assessed using 11 and 8 questions, respectively. Cronbach's alpha for dissociated, depressive, and traumatic symptom assessments were 0.82, 0.88, and 0.85, respectively. The presence of dissociated symptoms when women took care of children was queried because taking care of them can trigger dissociation if women have experienced CAH.

2.2.4. Child maltreatment

Three subtypes of child maltreatment (physical and psychological abuse and neglect) by the mother and father were queried during the time the mother lived with her husband or partner (i.e., before escaping from the husband or partner) and the current living environment (i.e., after escaping from the husband or partner and living in the Mother–Child Home). Sexual abuse was assessed by asking about the experience of treating sexually. Physical abuse was assessed by asking about the experience of beating and kicking. Psychological abuse was assessed by asking about the experience of verbal abuse (speak to children with harmful words). Neglect was assessed by asking about the experience of: (1) not providing care which is needed for the child to survive, such as the provision of meals or clothes, and (2) playing or enjoying talking with the child (reverse coded). Each experience was assessed employing a 1–4 Likert scale, ranging from 1, not at all; 2, rarely; 3, sometimes; to 4, frequently. The total score was calculated by the summation of all questions. These questions were developed based on the Japanese version of maltreatment (Center, 1999), originally comprising of 17 items, but modified into 5 questions to reduce the burden on the respondents.

2.2.5. Covariates

Potential confounders were assessed in the questionnaire. For mothers, the age, current marital status, current working status,