

Original contribution

Child abuse, other early experiences and depression: I. Epidemiology of parental loss, child abuse, perceived rearing experience and early life events among a Japanese community population

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Summary

Experiences during childhood, such as parental loss, abuse by parents, unloving or overprotective rearing behaviours, and major life events have been thought of as important in child development and adult mental health. However, most previous studies were undertaken from the Western countries. Data in Japan were collected for the reference purpose as well as to determine the effects of sex and age cohorts in these phenomena. A total of 220 inhabitants (96 men and 124 women) aged 18 or more in a provincial town in Japan were successfully examined. Women aged 55 or more were more likely to report early maternal loss (i.e. death or separation before age of 16). Overall, men were more likely than women to report having been slapped and punched by the mother. Women aged 55 or more were less likely to report health-related negative as well as positive events as children. These findings suggest that, for this population, early experiences, in some cases, depend on the sex and the age cohort.

Keywords: Child abuse; parental loss; rearing; life events; epidemiology.

Introduction

Experiences during childhood have been thought of as an important factor in both child development and adult mental health (Bowlby, 1977). Child abuse and harsh disciplinary attitudes of parents (Grusec and Goodnow, 1994; Salzinger et al., 1991, 1993; Straus, 1991), the death of or separation from a parent (Goldney, 1981), unloving or overprotective rearing behaviour (Martin and Waite, 1994), and early life events (Sadowski et al., 1999) are examples of such experiences. Despite the notion that protective fac-

tors may be speculated (Rutter, 1985, 1986), accumulated evidence suggests that these adverse experiences are associated with the onset of several different types of psychopathology in adult life (Bezizgarian et al., 1993; Holmes and Robins, 1988; Luntz and Widom, 1994; Parker, 1983; Servant and Parquet, 1994). However, there has been little investigation of the prevalence of these experiences among a general population; the cohort specificity and temporal variation of these early experiences are also neglected areas of research.

In the first paper of this series of two, we will report the prevalence and cohort specificity of parental loss, abuse by parents, perceived rearing attitudes, and early life events in a non-patient population in Japan. To the best of our knowledge, this is the first study of its kind conducted in Japan. In the second paper, we will examine the relationship of these experiences and the adult onset of depression (Kitamura et al., 2000).

Method

Participants

The details of the method have been described elsewhere (Kitamura et al., 1995a; Kitamura et al., 1995b). Briefly, a total of 508 inhabitants aged 18 or more in a district of the City of Kofu, the capital of Yamanashi Prefecture, were invited to an interview for an epidemiological study on mental health and mental illnesses. Of these, 228 (45%) agreed to do so, but only 207 were

successfully interviewed because 12 subjects later changed their minds, 4 were not at home on the interview day, 3 could not be interviewed for personal or administrative reasons, and 2 had moved out of the town by the time of interview. When follow-up interviews were conducted 9 months later, those people who had declined were once again approached, when additional 13 subjects accepted it. The final sample consisted of 96 men and 124 women; they were aged between 18 and 91, the mean age being 53.9 (SD 16.6) years. Men and women did not differ in their mean age (men, $M = 56.2$ $SD = 16.8$; women, $M = 53.7$, $SD = 16.3$). The interviewed and un interviewed people did not differ in the mean age and sex ratio. Other information about the non-responders was not available.

Measures

Parental loss: In the interview, the participant was asked if he/she had lost the father or mother before age of 16 either by death or by separation of one month or longer; if there had been such an experience, subsequent enquiries focused on the age when it occurred, the cause of the loss and (for separation) its duration (Brown et al., 1977).

Child abuse by parents: The interview also investigated the participant's early experience of abusive behaviours by the parents; five categories – scolding, slapping, punching with a fist, hitting with an object, and burning (e.g. a lit cigarette) – were rated for their frequency – never (1), several times a year (2), several times a month (3), several times a week (4), and almost every day (5) (Kitamura et al., 1995a).

Perceived rearing experience: The questionnaire involved the Japanese version of the Parental Bonding Instrument (PBI; Parker et al., 1979; Kitamura and Suzuki, 1993). The PBI is a self-rating measure for the perceived rearing behaviour of the father and mother before the participant was 16. It consists of 25 items, each rated from 0 to 3. The PBI has two subscales, care and overprotection. The care subscale consists of 12 items, with a score-range between 0 and 36; the overprotection subscale consists of 13 items, with a score-range between 0 and 39. Higher care scores indicate higher affection and closeness, while lower scores indicate indifference and rejection. Higher overprotection scores indicate higher intrusiveness and control, while lower scores indicate the encouragement of autonomy.

Early life events: The participants were asked if they had experienced each of 18 life events before age of 16. A list of these events was presented during the interview. If they reported that they had experienced any of the events, they were further asked how old they were when the event happened. Each event (for example, being bullied at school) was counted as one for each age; thus the possible total number of experiences of each event is between 0 and 15 (for example, the experience of being bullied at school for a duration of 1 year was counted as 1 while being bullied throughout 2 years was counted as 2).

The early life events were classified on a theoretical ground into: (a) school-related negative events (e.g. being betrayed by a close friend), (b) health-related negative events (e.g. being admitted to a hospital), (c) family-related negative events (e.g. parental disharmony), and (d) positive events (e.g. first prize in art). The total number of all types of negative events was calculated as a sum of the numbers of school-, health-, and family-related negative events. The numbers of experiences were positively skewed. Accordingly, the school-related events, health-related events, family-related events, total negative events, and positive events scores were all log-transformed for further calculations.

Social desirability: The questionnaire also contained the Social Desirability Scale (SDS; Crowne and Marlowe, 1960; Kitamura

and Suzuki, 1986), which measures the degree of the participant's response to questionnaire items in socially acceptable directions. The original 33 SDS items were reduced to 10 to make it appropriate for Japanese populations (Kitamura and Suzuki, 1986). Each item is rated as 0 to 1 (some items were reversed), giving a total score between 0 and 10. Higher scores indicate the subject's greater tendency to respond in socially desirable manner.

Procedure

The participants were mailed a set of questionnaires (including the PBI and the SDS), which was collected before the face-to-face interview, conducted either at the participant's home or at the Yamanashi Prefectural Mental Health Centre by a trained interviewer. The interview tapped (a) parental loss, (b) child abuse by parents, (c) early life events, and (d) psychiatric diagnoses. The interviews were conducted in November, 1992 and August, 1993. Written informed consent was given by every participant prior to the interview. All subjects were assured that they could discontinue the interview whenever they wished. A few cases were missing for the PBI. The number of subjects available for the PBI scores is described in Table 3.

This study was approved by the Ethical Committee of the National Center of Neurology and Psychiatry (Kohnodai Campus).

Statistical analyses

Each of the child abuse and early experiences was described and compared with demographic features – sex and age. We grouped the participants into those aged 55 or more and those aged 54 or less. Those participants aged 55 or more at the time of the interview had spent their childhood before or during World War II, while those aged under 55 had spent their childhood in the post-war period. Japan saw a drastic cultural change around the end of the war. This cut-off-point also represented approximately a median of the subject (see Table 1). For discussing child abuse and PBI scores, we excluded subjects who reported having been separated from a parent for at least a month or lost the parent by death before the age of 16 because the inclusion of such cases might result in underestimating experiences of child abuse.

Results

Loss experiences

Details of parental loss experiences are seen in Table 1. Although the rate of the death of the father before the participant was aged 16 did not differ between the two age groups among men or women, the rate of the death of the mother did only so among women (Table 1). Thus, it was significantly higher among the older women (12.1%) than among the younger women (0.0%). Also, the proportion of women who had lost father *or* mother by death before the age of 16 was significantly higher among those currently aged 55 or more than those aged 54 or less. The causes of parental death were mainly disease; Thus 18 of 21 (86%) paternal death cases and 15 of 18 (83%) maternal death cases were due to disease.

Table 1. *Early parental loss experiences by sex and current age of the participants*

Early loss experiences	Men (n = 96)				Women (n = 124)			
	All ages (n = 96) (%)	18–54 (n = 40) (%)	55+ (n = 56) (%)	p	All ages (n = 124) (%)	18–54 (n = 58) (%)	55+ (n = 66) (%)	p
Death of								
Father	10 (10.4)	2 (5.0)	8 (14.3)	0.259	11 (8.9)	3 (5.2)	8 (12.1)	0.298
Mother	10 (10.4)	4 (10.0)	6 (10.7)	1.000	8 (6.5)	0 (0.0)	8 (12.1)	0.018
Either	20 (20.8)	6 (15.0)	14 (25.0)	0.350	17 (13.7)	3 (5.2)	14 (21.2)	0.020
Separation for at least 1 month								
Father	22 (22.9)	8 (20.0)	14 (25.0)	1.000	22 (17.7)	9 (15.5)	13 (19.7)	0.710
Mother	15 (15.6)	4 (10.0)	11 (19.6)	0.318	12 (9.7)	2 (3.4)	10 (15.2)	0.058
Either	26 (27.1)	10 (25.0)	16 (28.6)	0.877	25 (20.2)	9 (15.5)	16 (24.2)	0.325
Separation for 12 months +								
Father	19 (19.8)	8 (20.0)	11 (19.6)	1.000	15 (12.1)	4 (6.9)	11 (16.7)	0.165
Mother	9 (9.4)	1 (2.5)	8 (14.3)	0.110	7 (5.6)	0 (0.0)	7 (10.6)	0.031
Either	21 (21.9)	9 (22.5)	12 (21.4)	1.000	17 (13.7)	4 (6.9)	13 (19.7)	0.071
Any loss of								
Father	30 (31.3)	10 (25.0)	20 (35.7)	0.372	32 (25.8)	11 (19.0)	21 (31.8)	0.154
Mother	23 (24.0)	7 (17.5)	16 (28.6)	0.312	18 (14.5)	2 (3.4)	16 (24.2)	0.002
Either	39 (40.6)	14 (35.0)	25 (44.6)	0.461	36 (29.0)	11 (19.0)	25 (37.9)	0.034

“Any loss” includes death of a parent or separation for at least 1 month. *p* significance level for the difference between the two age groups in men and women separately using the χ^2 test with continuity correction or Fisher’s exact probability, whichever appropriate.

The rate of maternal separation for at least 12 months or longer was significantly higher in the women aged 55 or more. We defined “separation” as a period of one month or longer, but most of the subjects who reported this experience had actually been separated for 12 months or longer. Thus, of the 44 subjects with early paternal separation and 27 with early maternal separation, 34 (77%) and 16 (59%) had experienced separation of 12 months or longer, respectively.

When death and separation were examined jointly (“any loss” categories in Table 1), it was observed that, as compared with the younger women, women currently aged 55 or more were likely to have experienced (a) loss of mother by *either* death or separation, and (b) loss of *either* father or mother by *either* death or separation. Thus, the women of this age cohort seem overrepresented in rates of early parental loss.

Child abuse

The rate of child abuse experienced by the participants at least several times a year before age of 16 is shown in Table 2. The rate of each abusive behaviour did not differ between men and women as far as the father’s abusive behaviours were concerned, whereas

the rate of mother’s abusive behaviour seemed higher among men, and it reached a statistical significance for slapping and punching.

Perceived parenting

The PBI care and overprotection scores were slightly higher among females than males, but this did not reach statistical significance. Both care and overprotection scores were almost evenly distributed over the two age cohorts (Table 3).

Early life events

The most frequently experienced event (regardless of its desirability) was “winning the first prize in art, calligraphy, carpentry, or music” (25.5%), followed by “winning the first prize in an athletic game” (23.6%) and “elected as a class leader” (19.5%). Of the negative events, the most frequently reported event was “moved a home” (17.3%), followed by “changed school”, “fracture or injury” and “fostered” (12.3% each). As expected, the distribution of each life event during childhood was positively skewed.

After they were log transformed, the four subscales of life events were compared between the

Table 2. Parents' child abusive behaviour (several times a year or more)

	Scolding (%)	Slapping (%)	Punching (%)	Hitting (%)	Burning (%)
Father's harsh discipline					
Total (n = 158)	38 (24.1)	26 (16.5)	11 (7.0)	3 (1.9)	1 (0.6)
Men (n = 66)	20 (30.3)	14 (21.2)	8 (12.1)	3 (4.5)	1 (1.5)
Women (n = 92)	18 (19.6)	12 (13.0)	3 (3.3)	0 (0.0)	0 (0.0)
p	N.S.	N.S.	N.S.	N.S.	N.S.
Mother's harsh discipline					
Total (n = 179)	27 (15.1)	8 (4.5)	4 (2.2)	3 (1.7)	3 (1.7)
Men (n = 73)	15 (20.5)	7 (9.6)	4 (5.5)	3 (4.1)	3 (4.1)
Women (n = 106)	12 (11.3)	1 (0.9)	0 (0.0)	0 (0.0)	0 (0.0)
p	N.S.	0.008	0.026	N.S.	N.S.

P value is for the difference between the two sex groups using χ^2 test with Yates' correction or two tailed Fisher's exact test as appropriate.

Table 3. Perceived rearing of parents by age cohorts

	Father		Mother	
	Care	Overprotection	Care	Overprotection
Men				
18–54	24.1 (6.7) [n = 29]	9.8 (6.8) [n = 27]	27.5 (6.8) [n = 22]	10.6 (7.8) [n = 27]
55+	22.4 (5.4) [n = 31]	11.3 (5.9) [n = 28]	27.5 (6.2) [n = 19]	10.4 (5.5) [n = 30]
Women				
18–54	24.7 (7.6) [n = 47]	11.4 (6.7) [n = 46]	27.6 (6.8) [n = 35]	9.3 (6.2) [n = 52]
55+	25.8 (5.8) [n = 28]	10.6 (4.7) [n = 31]	28.3 (5.5) [n = 22]	9.8 (5.3) [n = 34]

SD in brackets.

Table 4. Early life events by sex and current age of the participants

	School-related negative life events	Health-related negative life events	Family-related negative life events	Total negative life events	Positive life events
Sex					
Men (n = 96)	0.21 (0.39)	0.27 (0.40)*	0.31 (0.51)	0.67 (0.61)	0.58 (0.79)
Women (n = 124)	0.23 (0.42)	0.17 (0.35)*	0.26 (0.47)	0.54 (0.66)	0.79 (0.07)
Age					
18–54 (n = 98)	0.23 (0.42)	0.26 (0.42)	0.24 (0.51)	0.60 (0.68)	0.75 (0.85)**
55+ (n = 122)	0.22 (0.39)	0.18 (0.34)	0.32 (0.47)	0.59 (0.61)	0.46 (0.71)**
By sex and age					
Men aged 18–54	0.22 (0.43)	0.25 (0.40)	0.25 (0.58)	0.58 (0.72)	0.73 (0.86)
Men aged 55+	0.21 (0.36)	0.29 (0.40)	0.36 (0.45)	0.74 (0.53)	0.48 (0.74)
Women aged 18–54	0.23 (0.43)	0.27 (0.44)**	0.23 (0.46)	0.62 (0.65)	0.76 (0.85)*
Women aged 55+	0.22 (0.42)	0.08 (0.23)**	0.29 (0.49)	0.47 (0.66)	0.44 (0.70)*

*p < 0.05; **p < 0.01; SD in brackets.

two sexes and between the younger and older participants (Table 4). Between the two sexes, the health-related negative life event score was significantly higher among men than women ($t = 2.00$, $p < 0.05$). Between the age cohorts, the positive life event score was significantly higher among those participants aged 54 or less than those aged 55 or more ($t = 2.72$,

$p < 0.01$). Comparison of the younger and the older groups separately for the two sexes showed that the health-related negative event score was significantly lower among the older women than the younger women, and that the positive life event score was significantly lower among the older women than the younger women. Thus, the women aged 55 or more

were characterised by reduced rates of both health-related negative life events and positive life events.

Influences of social desirability

The total SDS score was not significantly associated with any of the parental loss experiences. It was slightly to moderately correlated with the PBI scores (father's care, $r = 0.18$, $p < 0.05$; father's overprotection, $r = -0.17$, $p < 0.05$; mother's care, $r = 0.22$, $p < 0.05$; mother's overprotection, $r = -0.13$, NS). The total social desirability score was not correlated with the father's or mother's child abuse scores. Nor was it correlated with any of the life events scores.

Discussion

Whenever early experiences are studied in either clinical or epidemiological settings, data derived from the population from which subjects have been extracted should be sought as a reference point. These early experiences are, however, often subject to cultural (Flynn, 1994), historical, or secular (e.g. Straus and Gelles, 1986) changes. They may depend on, among many others, the gender role, social structure, economic conditions (e.g. unemployment, financial difficulties), and family structure (e.g. number of siblings, a single parent family). Because these potential determinants vary from one country to another, epidemiological findings from Western countries cannot be used for comparison in Eastern hemisphere countries such as Japan. This report therefore provides unique reference data for early experience studies in Japan, as well as for trans-cultural comparisons.

This study has demonstrated that early experiences follow secular trends. As expected, loss of mother was experienced by many individuals now aged 55 and more; this is likely to have occurred before 1942, which probably corresponds to the period around the second world war.

Unlike the early loss experiences, the perceived rearing experiences showed stability over all age groups, as well as between the two sexes. Mackinnon et al. (1989) and Cubis et al. (1989) reported that the mean paternal care score was significantly higher among males than females, but we did not find any sex differences in any of the PBI scores. This may be due to the relatively small number of subjects in our study, and should be re-examined in a study with larger numbers. Compared to the previous studies in

Australian subjects, the PBI scores in our study were not markedly different, except for the maternal overprotection score; the mean maternal overprotection score was 10.46 for males and 9.83 for females in our study, while it ranged from 11.5 (Parker et al., 1979) to 15.0 (Cubis et al., 1989) in Australian subjects. This cannot be explained solely on the basis of cultural differences, since the mean maternal overprotection score reported by Ogawa (1991) was 11.5 for a Japanese mixed-sex population.

Early life events, too, exhibited a secular trend. The older women were less likely to have experienced health-related negative events and positive life events. Fewer life events may be due to a recall bias as the subjects become older, but the fact that this finding is only the case among women suggests that this may be a true recollection. This difference is difficult to explain but warrants further studies.

Caution should be exercised in interpreting these results. Firstly, our subjects lived in a provincial town of Japan. People from large industrial areas may show different profiles. Secondly, the area where we conducted our study, Kofu City, used to be a focus of American air bombardment during the last few years in the Second World War. Individuals who used to live in different parts of Japan may show less war-involved pictures in terms of early experiences. Thirdly, the data were based on a retrospective enquiry, requiring subjective recall, and recall bias is difficult to eliminate.

A serious methodological concern is a very low rate of participation. Only 45% of the eligible people accepted our proposal. This suggests that people are afraid of participating in a "mental health" research. This was expected because of a very harsh stigma attached to psychiatry and psychiatric patients (e.g. Sugiura et al., in press). Studies like the present one is still rare in Japan.

Despite these methodological flaws, the present study provides the first substantive data on child abuse and other early experiences among a non-clinical population, which includes wide age-ranges. It is hoped that this will not only serve as a reference for future studies but also draw attention to inherent problems in similar investigations which did not have an appropriate control population.

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