PSYCHIATRIA ET NEUROLOGIA JAPONICA

Original Article

Adverse Childhood Experiences, Lifetime Trauma Exposure, and PTSD in Psychiatric Clinics of Japan: A Cross-sectional Study

Eizaburo TANAKA[1,4], Mizuho NISHIKAWA[2], Keisaku OKUBO[3], Satomi KAMEOKA[1]
1 Hyogo Institute for Traumatic Stress
2 KakuNishikawa Clinic
3 Okubo Clinic
4 University College London, Institute of Epidemiology and Health Care
Psychiatria et Neurologia Japonica 123: 396-404, 2021

Abstract

[Purpose] We aimed to compare the prevalence of Adverse Childhood Experiences (ACEs) and Potentially Traumatic Events (PTEs) among outpatients at general psychiatric clinics with those of the general population in Japan. We also examined the proportion of the PTSD high-risk group in patients with PTEs. [Methods] This study used the secondary data analysis of medical records from two psychiatric clinics, which agreed to provide them. The study subjects were patients over 18 years old (N=1058) who visited the clinics and agreed to provide their medical records for the study purpose during a month in 201X. The response rate was 96% (1011 of 1058). Of 1011, we analyzed 1008 patients who have been diagnosed with mental disorders based on the ICD-10 criteria. We obtained several types of data: sex, age, clinical diagnosis, ACEs, Life Events Checklist for DSM-5, Impact of Event Scale-Revised. [Results] In total, 61% had at least one ACE, and 88% had at least one PTE, which were significantly higher than those of the general population. In addition, more than half of the patients with PTEs were in the PTSD high-risk group. [Discussion] As far as we know, this is the first study, which showed the high prevalence of ACEs and PTEs among patients at general psychiatric clinics in Japan. Furthermore, more than half of

the patients with PTEs had current PTSD symptoms. Clinicians need to pay more attention to ACEs and PTEs for better treatment and care, although we should be cautious of generalizing our results because of the convenience sampling.

Keywords: adverse childhood experiences, potentially traumatic events, PTSD, epidemiology

Introduction

In recent years, it has become clear that adverse childhood experiences (ACEs) and lifetime experiences of potentially traumatic events (PTEs), such as disasters, accidents, violence, sexual assault, and wars, can adversely affect neurodevelopment and immunity, leading to chronic physical and mental health problems 13)18)32).

According to a U.S. study of ACEs, 61% of adults had experienced at least one of the following by age 18: violence, abuse, neglect, witnessing violence, family suicide (attempted), substance abuse in the home, mental disorder, separation from parents, or family members incarcerated, and one in six had experienced four or more ACEs 12). Compared to those who do not have four or more ACEs, those with four or more ACEs have a 3-6 times higher risk of having depression and anxiety, seven times higher risk of having substance use, 30 times higher risk of suicide attempts, 1.5 times higher risk of having diabetes, and 2-3 times higher risk of having cardiovascular and respiratory diseases and cancer 19). In an epidemiological survey in Japan, about 32% of adults experienced at least one of the 12 ACEs (parental bereavement/divorce/separation, family mental disorder/substance use/crime, domestic violence, physical abuse, sexual abuse, neglect, physical illness, and economic difficulties 15). In addition, the risk of having any mental disorder was 2.5 times higher among those with the three ACEs than those without ACEs 15). Furthermore, in a study of older adults in Japan, ACEs were also associated with decreased activity capacity function and physical disease (cancer, diabetes) 3)4).

The frequency of PTEs throughout life is even higher, with more than 70% of people worldwide estimated to have experienced some form of PTEs 8), and in a Japanese survey, the PTEs prevalence was 60% 23). Obviously, not all people who experience PTEs can develop mental disorders such as posttraumatic stress disorder (PTSD),

and the incidence of PTSD varies depending on the nature and intensity of PTEs, the timing of diagnosis, and other demographic factors. A recent systematic review estimated that approximately 16% of children/adolescents aged 2 to 18 years who experience PTEs develop PTSD, with a PTSD incidence rate of approximately 25% among children/adolescents who experience interpersonal PTEs such as abuse 1).

Given the high prevalence of ACEs and PTEs and their significant psychosomatic effects, it is reasonable to assume that many patients who visit medical facilities, including psychiatry, have ACEs and PTEs. We hypothesized that the prevalence of ACEs and PTEs would be higher among general psychiatric outpatients in Japan than in the general population. In fact, reports from other countries have shown that 40-70% of psychiatric outpatients had been physically or sexually abused 11)26), and that as many as 98% of male patients with substance use disorders had at least one ACE 30). In addition, the higher the ACEs score, the more often antidepressants, anxiolytics, and antipsychotics are prescribed 5), but the response to the pharmacotherapy seems to be poorer than that of patients without ACEs 31). Moreover, if medical personnel do not pay sufficient attention to ACEs and PTEs, re-traumatization may occur. For example, seclusion restraints, coercive responses, and invasive procedures in psychiatric care can carry such risks 22). Therefore, psychiatrists need to pay close attention to ACEs and PTEs.

A Japanese study of ACEs and PTEs in psychiatric patients reported that 31 of 53 psychiatric inpatients (58.5%) had at least one ACE 24), and another reported the association between ACEs and substance use disorders in 437 first-visit outpatients with addictions 20). However, there have been no studies on general psychiatric outpatients. The objectives of this study were (1) to compare the prevalence of having at least one ACE and PTE among outpatients in general psychiatric clinics with estimates for the general population (32% ACEs, 60% PTEs) 15)23), (2) to explore the prevalence of ACEs and PTEs by contents, and (3) to explore the prevalence of possible PTSD among those with PTEs. As a supplemental analysis, we also examined the prevalence of possible PTSD by clinical diagnosis, and the association between a history of abuse, PTEs, and possible PTSD.

I. Methods

Study Design

This study is a secondary data analysis of clinics A and B medical records in municipality X, where consent for

research participation was obtained.

2. Object

Of the patients aged 18 years or older (N=1,058) who visited outpatient clinics A and B during the month of Y in year X and who agreed to provide data for research purposes to the Hyogo Institute for Traumatic Stress (N=1,011, 96% consent rate), 1,008 patients with a confirmed clinical diagnosis were included in the study. The data included sex, age, clinical diagnosis, ACEs, Life Events Checklist for DSM-5 (LEC-5), and Impact of Event Scale-Revised (IES-R).

3. Measurements

(1) Clinical diagnosis

At the time of providing this data, the psychiatrists indicated only one primary diagnosis based on the ICD-10 diagnostic criteria from the medical records to date. The ACEs, LEC-5, and IES-R data described below were not used in making this clinical diagnosis.

(2) ACEs

We used ten questions from a series of ACEs studies conducted by the Centers for Disease Control and Prevention and Kaiser Permante 12)14). These questions inquire the presence or absence of the following: psychological abuse, physical abuse, sexual abuse, psychological neglect, physical neglect, divorce or separation of parents, intimate partner violence against the mother (domestic violence in front of children), alcohol/drug abuse in the family, mental illness or suicide in the family, and incarceration in the family. In addition, we calculated the ACEs score by summing the number of ACEs. The Japanese version of the ACEs questionnaire was developed by Tsuboi, and its validity and reliability have been reported 39).

(3) LEC-5

The LEC-5 is designed to screen for PTEs with a self-administered questionnaire that assesses the presence or absence of direct experience, witnessing, or hearsay of 16 types of events (natural disasters, fires and explosions, car accidents, serious accidents, exposure to toxic substances, physical violence, violence with weapons, sexual violence, unwanted and uncomfortable sexual experiences, war and battlefield experiences, imprisonment, life-threatening illness or injury, severe human suffering, sudden violent death, sudden accidental death, serious injury, disability, or death of others from their own causes), as well as other highly stressful events in their lives. As the LEC-5 is designed to collect information on lifetime trauma experiences systematically, and no formal scoring method has been defined 41), in this study, we calculated the total number of all types of trauma experiences and the total number of each type of experience.

4) IES-R

Patients with at least one PTE on the LEC-5 were assessed for PTSD symptoms during the past week concerning the most distressing event using the IES-R. The IES-R is a self-administered questionnaire developed by Weiss, D. S. et al. in the U.S. to measure PTSD symptoms. The IES-R consists of 22 items: eight intrusion symptoms, eight avoidance symptoms, and six hyperarousal symptoms. The reliability and validity of the Japanese version of the IES-R have been established by Asukai, N. et al. and the cut-off score is defined as 25 points or higher 7). In the present study, the PTSD high-risk group (possible PTSD) was also defined as those with at least one PTE on the LEC-5 and at least 25 points on the IES-R.

4. Analysis

The demographics of the participants were described as below. Continuous variables (age, ACEs score, number of PTEs, and IES-R score) were visually examined by histograms, revealing non-normal distribution. Therefore, medians and quartiles were used to summarize the data. Binary variables were summarized as numbers and percentages. Next, we determined the prevalence of ACEs and PTEs by contents. We also used the One Sample Proportion Test to test whether the proportion of subjects with at least one each of ACEs and PTEs was different from that of the general population in Japan (32% ACEs and 60% PTEs). In addition, the percentage of those in the PTSD high-risk group was calculated for 709 of the 882 subjects with no missing values on the IES-R, excluding 6 subjects with a clinical diagnosis of PTSD (F43.1) from those with at least one PTE (N=888). The percentages of those in the PTSD high-risk group by clinical diagnosis are also shown. In addition, the group was divided into those with a history of abuse (psychological abuse, physical abuse, sexual abuse, psychological neglect, physical neglect) (N=461) and those without (N=509) ACEs. The difference in the number of PTEs was analyzed using the Wilcoxon rank-sum test, and the difference in the proportion of the high-risk PTSD group was analyzed using the $\chi 2$ test. Analyses were performed with the STATA ver. 16.0 (Stata Corp., Union Station, Texas, USA), and a two-tailed P value of less than 0.05 was considered statistically significant.

5. Ethical considerations

This study was conducted with the approval of the Ethical Review Committee of the Hyogo Institute for Traumatic Stress. We informed the subjects verbally and in writing, obtained their consent to provide information, and conducted the study

with the protection of their personal information in mind.

II. Results

1. Characteristics of study participants

The demographics of the participants are shown in Table 1. The median [quartile] age was 41 years [31, 52]. Sixty percent were female. Mood disorder (F3) was the most common clinical diagnosis (36%), followed by neurotic disorder (F4) (20%) and developmental disorder (F8) (19%).

2. ACEs

The median [quartile] ACEs score was 1 [0, 3], and the number of missing ACEs was 81 (8%). The distribution of ACEs scores was 0 (39%), 1 (19%), 2 (13%), 3 (10%), and 4 or more (19%). 61 % of the subjects (N=927) had at least one ACE, which was significantly higher than the general population (32%) (P<0.001, 95% confidence interval [58, 64]). The frequency of ACEs by content is shown in Table 2. The most common types of ACEs were psychological abuse (33%), psychological neglect (27%), divorce or separation of parents (25%), physical abuse (25%), and family mental disorder or suicide (23%).

3. PTEs

The median [quartiles] of the number of PTEs were: total 4 [2, 7], direct experience 2 [1, 4], witness 0 [0, 1], and hearsay 1 [0, 2]. Eighty-eight percent of the subjects (N=1,008) had experienced at least one PTE, which was significantly higher than the general population (60%) (P<0.001, 95% confidence interval [86, 90]). The prevalence of PTEs by content and type of experience is shown in Table 3. The most common PTEs directly experienced were natural disasters (54%), other very stressful events (54%), physical violence (31%), severe human suffering (26%), traffic accidents (24%), and sexual abuse (9% sexual violence, 16% uncomfortable sexual experiences against their will). The most common PTEs witnessed were fire or explosion (24%), traffic accidents (16%), life-threatening illness or injury (10%), natural disasters (10%), physical violence (7%), and serious accidents (5%). The most common PTEs known by hearsay were traffic accidents (21%), natural disasters (16%), sudden violent death (15%), sudden accidental death (15%), and fire or explosion (14%). The group with a history of abuse (median 6, quartiles [3, 9]) had significantly more PTEs (P < 0.001) than the group without a history of abuse (median 3, quartiles [1, 5]).

4. PTSD high-risk group

The median [quartile] IES-R score (N=709) was 27 [8, 47], and 366 (52%) were in the PTSD high-risk group. The number and percentage of patients in the PTSD high-risk group by clinical

diagnosis are shown in Table 4. Seventy-one percent of F5 and 80% of F6 patients were in the PTSD high-risk group; all F5 patients had an eating disorder (F50); 16 of 20 F6 patients had a borderline personality disorder (F60.3), and the other sub-diagnoses were antisocial personality disorder (F60.2), avoidant personality disorder (F60.6), pathological gambling (F63.0), and ego-dysphoric sexual orientation (F66.1). The percentage of those in the PTSD high-risk group was significantly higher in the group with a history of abuse than in the group without (70% vs 32%, $P < 0.001$).

III. Discussion

It has been assumed that many of the outpatients in general psychiatric clinics in Japan have ACEs and PTEs, as shown in previous studies in the other countries. However, to our knowledge, there have been no studies of these clinical groups in Japan. In this study, 61% of patients presenting to a general psychiatric outpatient clinic in Japan had at least one ACE, and 88% had at least one PTE. These prevalence were significantly higher than those in the general Japanese population. In addition, 52% of patients with at least one PTE were found to be in the high-risk group for PTSD.

1. ACEs

Compared with the results of a survey of the general population in Japan 15), the number of patients with at least one ACE was about twice as high (61% in the present study/32% in the general population), indicating how many patients with ACEs use psychiatric outpatient clinics. The number of ACEs questions in this study and in the general population is different (10 in this study/12 in the general population), so comparisons should be made with caution. However, it is unlikely that the difference is due to a lack of survey items, as the general population survey has more items to be surveyed.

Focusing on the contents of ACEs, child abuse was frequently observed. In fact, compared with an epidemiological study 38) conducted in the general population in Japan, the prevalence of psychological abuse (33% in this study/ 4% in the general population), neglect (10-27% in this study/ 0.8% in the general population), physical abuse (25% in this study/ 3% in the general population) and sexual abuse (14% in this study/ 0.6% in the general population) were about ten times higher than in the general population. Previous systematic reviews 16)25) have consistently shown an association between child maltreatment and various adult-onset mental disorders, including PTSD, depression, anxiety, schizophrenia, and substance use disorders. Consistent with previous

studies 9)27), the present study also found that those with a history of abuse experienced more PTEs and were more likely to be in the high-risk group for PTSD. Therefore, along with early public health intervention for abused children, further implementation of trauma-informed psychological intervention 29) for patients with a history of abuse who visit adult psychiatric outpatient clinics is needed. In this study, divorce or separation of parents and family psychiatric disorders were also frequently observed. Previous studies have shown that the former is associated with depression in adulthood, and the latter with PTSD and psychotic-like experiences 28)36)40). Divorce and family psychiatric disorders may increase the risk of psychiatric disorders in adulthood through deterioration of family functioning and the child-rearing environment, and further support for single-parent families may be needed.

2. PTEs and PTSD

Compared with a previous study 23) of the general population in Japan, the prevalence of having a PTE was about 1.5 times in this population (88% in this study/60.7% in the general population). Among types of the PTEs in this study, natural disaster (54%) was the most prevalent, and had ten times higher percentage than that in the general population (5.4% in the general population). Physical violence (31% in this study/16.5% in the general population) and sexual victimization (9-16% in this study/4.3% in the general population) were also about twice as prevalent as in the general population. The importance of psychiatric support for victims of natural disasters has been widely recognized since the Great Hanshin-Awaji Earthquake. However, since the risk of developing PTSD is generally higher for intentional PTEs, such as crime, than for accidental PTEs, such as natural disasters 23), further support for crime victims may be needed.

In the present study, more than half of those with PTEs fell into the high-risk group for PTSD, whereas in the general population survey, 1.3% had a lifetime PTSD diagnosis, and 0.7% had a past 12-month PTSD diagnosis, indicating a significant discrepancy. The reasons for this discrepancy may be due to differences in survey methods and missing values. Previous studies in the general population have used structured interviews to diagnose PTSD, but this study used a self-administered questionnaire. When participants select the most painful event and answer a self-administered scale regarding PTSD symptoms, the assessment of PTSD symptoms may not be focused on the traumatic event, thus may be overestimated due to other psychiatric symptoms such as anxiety and

depression 10)42). Furthermore, the lack of consideration of social dysfunction may also lead to overestimation of PTSD 42). In this study, the number of missing IES-R was 20% of the subjects, which is not negligible. Therefore, as a sensitivity analysis, we corrected for overestimation by assuming that none of the participants with missing of IES-R were in the PTSD high-risk group, and by considering that the PTSD diagnosis rate decreased from 8% to 5% (it was overestimated by 60%) when social dysfunction was added 13). The PTSD high-risk group in this study was estimated to be 24%. This means that even at the most optimistic and conservative estimates, one out of four participants in this study may be in the PTSD high-risk group.

In addition, a tendency toward having personality and eating disorders was observed in the PTSD high-risk group by diagnosis. Previous studies have reported an association between borderline personality disorder and PTSD 21) and between binge eating disorder and PTSD 35). However, because the reliability of the clinical diagnosis in this study was not sufficiently high and the sample size was small, it cannot be said that personality disorders and eating disorders are more likely to be associated with PTSD than other diagnoses, and the data should be used for reference only.

3. Limitations

This study has several limitations. First, the generalizability of the results must be treated with caution because the subjects were patients obtained by convenience sampling. In this study, child abuse was frequently identified as an ACE and natural disasters were frequently identified as a PTE. However, since the clinic where the study was conducted was in an area that had experienced large-scale natural disasters, such as the Great Hanshin-Awaji Earthquake, and also had a high number of consultations per population for child abuse 37), it is possible that these factors affected the frequency of ACEs and PTEs. On the other hand, it should be noted that none of the clinics that cooperated in the study advocate outpatient clinics specializing in trauma and PTSD. Second, the validity of the Japanese version of the LEC-5, a questionnaire to assess PTEs, has not been established. In fact, in this study, the most common directly experienced PTEs, along with natural disasters, were "other very stressful events," and it is unclear whether or not they truly meet the criteria for traumatic events as defined by the DSM-5 and ICD-11. Future validation of the Japanese version of the LEC-5 and other questionnaires to assess PTEs is needed.

Third, the number of missing IES-R was not negligible at 20%. Although the IES-R has been used in various epidemiological studies in Japan to assess PTSD symptoms, it may have been burdensome to have psychiatric outpatients answer 22 questions. In the future, it is desirable to develop a simpler tool to assess PTSD symptoms. Fourth, the clinical diagnosis of the subjects was made retrospectively by two attending psychiatrists at each clinic based on medical records, which has limited the validity and reliability. Future studies should include a structured diagnostic interview.

Conclusion

Despite these limitations, this study showed that significant proportion of Japanese outpatients at general psychiatric clinics have ACEs and PTEs along with having significant current PTSD symptoms across diagnoses. Allsopp, K. et al. 2) qualitatively analyzed the diagnostic criteria of the DSM-5 and pointed out that each diagnostic category is not uniform and has many overlapping areas, and that the influence of PTEs is not fully reflected. As it has become clear in recent years that ACEs and PTEs can have profound negative effects on later life, a consensus has emerged that trauma-informed care is essential, and the concept of trauma-informed care (TIC) has come into focus. TIC is not a specific treatment program, but represents the basic philosophy of broad-based support; TIC incorporates an understanding of trauma into all aspects of support and creates conditions that promote recovery in all aspects of support 17). The first step in this process is for supporters to understand the effects of trauma and to become aware of the trauma symptoms of their patients 34). In Japan, such practices are gradually being reported in the field of social welfare and other fields 6), and medical institutions are becoming aware of the need to pay attention to ACEs and PTEs 33). We believe that support and treatment from a trauma perspective needs to be expanded, regardless of the diagnostic category of the patient.

This research was supported by JSPS Grant-in-Aid for Scientific Research 19H01768. There are no conflicts of interest to disclose in relation to this paper. The abstract of this paper was presented at the 19th Annual Meeting of the Japan Traumatic and Stress Society

.

Acknowledgements

The authors would like to thank all those who kindly agreed to provide information for this study.

References

1) Alisic, E., Zalta, A. K., van Wesel, F., et al.: Rates of posttraumatic stress disorder in trauma-exposed children and adolescents: meta-analysis. Br J Psychiatry, 204; 335-340, 2014

2) Allsopp, K., Read, J., Corcoran, R., et al.: Heterogeneity in psychiatric diagnostic classification. Psychiatry Res, 279; 15-22, 2019

3) Amemiya, A., Fujiwara, T., Murayama, H., et al.: Adverse childhood experiences and higher-level functional limitations among older Japanese people: results from the JAGES study. J Gerontol A Biol Sci Med Sci, 73 (2); 261-266, 2018

4) Amemiya, A., Fujiwara, T., Shirai, K., et al.: Association between adverse childhood experiences and adult diseases in older adults: a comparative cross-sectional study in Japan and Finland. BMJ Open, 9 (8); e024609, 2019

5) Anda, R. F., Brown, D. W., Felitti, V. J., et al.: Adverse childhood experiences and prescribed psychotropic medications in adults. Am J Prev Med, 32 (5); 389-394, 2007

6) 浅野恭子, 亀岡智美, 田中英三郎: 児童相談所における被虐待児へのトラウマインフォームド・ケア. 児童青年精神医学とその近接領域, 57 (5); 748-757, 2016

7) Asukai, N., Kato, H., Kawamura, N., et al.: Reliability and validity of the Japanese-language version of the impact of event scale-revised (IES-R-J): four studies of different traumatic events. J Nerv Ment Dis, 190 (3); 175-182, 2002

8) Benjet, C., Bromet, E., Karam, E. G., et al.: The epidemiology of traumatic event exposure worldwide: results from the World Mental Health Survey Consortium. Psychol Med, 46 (2); 327-343, 2016

9) Bremner, J. D., Southwick, S. M., Johnson, D. R., et al.: Childhood physical abuse and combat-related posttraumatic stress disorder in Vietnam veterans. Am J Psychiatry, 150 (2); 235-239, 1993

10) Breslau, N., Peterson, E. L., Poisson, L. M., et al.: Estimating posttraumatic stress disorder in the community: lifetime perspective and the impact of typical traumatic events. Psychol Med, 34 (5); 889-898, 2004

11) Briere, J., Woo, R., McRae, B., et al.: Lifetime victimization history, demographics, and clinical status in female psychiatric emergency room patients. J Nerv Ment Dis, 185 (2); 95-101, 1997

12) Centers for Disease Control and Prevention: Preventing Adverse Childhood Experiences. (https://www.cdc.gov/violenceprevention/childabuseandneglect/aces/fastfact.html) (参照 2020-12-11)

13) Del Ben, K. S., Scotti, J. R., Chen, Y.-C., et al.: Prevalence of

posttraumatic stress disorder symptoms in firefighters. Work & Stress, 20 (1); 37-48, 2006
14) Felitti, V. J., Anda, R. F., Nordenberg, D., et al.: Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. Am J Prev Med, 14 (4); 245-258, 1998
15) Fujiwara, T., Kawakami, N.: World Mental Health Japan Survey Group: Association of childhood adversities with the first onset of mental disorders in Japan: results from the World Mental Health Japan, 2002-2004. J Psychiatr Res, 45 (4); 481-487, 2011
16) Hailes, H. P., Yu, R., Danese, A., et al.: Long-term outcomes of childhood sexual abuse: an umbrella review. Lancet Psychiatry, 6 (10); 830-839, 2019
17) Harris, M., Fallot, R. D.: Envisioning a trauma-informed service system: a vital paradigm shift. New Dir Ment Health Serv, 89; 3-22, 2001
18) Herzog, J. I., Schmahl, C.: Adverse childhood experiences and the consequences on neurobiological, psychosocial, and somatic conditions across the lifespan. Front Psychiatry, 9; 420, 2018
19) Hughes, K., Bellis, M. A., Hardcastle, K. A., et al.: The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. Lancet Public Health, 2 (8); e356-e366, 2017
20) 板橋登子，小林桜児，黒澤文貴ほか: 小児期逆境体験が物質使用障害の重症度に及ぼす影響—不信感，被拒絶感，ストレス対処力の低下を媒介としたモデル検討—. 精神経誌, 122 (5); 357-369, 2020
21) Jowett, S., Karatzias, T., Albert, I.: Multiple and interpersonal trauma are risk factors for both posttraumatic stress disorder and borderline personality disorder: a systematic review on the traumatic backgrounds and clinical characteristics of comorbid posttraumatic stress disorder/borderline personality disorder groups versus single-disorder groups. Psychol Psychother, 93 (3); 621-638, 2020
22) 亀岡智美: トラウマインフォームドケアと小児期逆境体験. 精神医学, 61 (10); 1109-1115, 2019
23) Kawakami, N., Tsuchiya, M., Umeda, M., et al.: Trauma and posttraumatic stress disorder in Japan: results from the World Mental Health Japan Survey. J Psychiatr Res, 53; 157-165, 2014
24) 工藤紗弓: 成人期以前の困難な体験がもたらす長期的な影響に関する検討. 2017 (http://id.nii.ac.jp/1419/00000884) (参照 2020-12-11)
25) Li, M., D'Arcy, C., Meng, X.: Maltreatment in childhood substantially increases the risk of adult depression and anxiety in prospective cohort studies: systematic review, meta-

analysis, and proportional attributable fractions. Psychol Med, 46 (4); 717-730, 2016
26) Lipschitz, D. S., Kaplan, M. L., Sorkenn, J. B., et al.: Prevalence and characteristics of physical and sexual abuse among psychiatric outpatients. Psychiatr Serv, 47 (2); 189-191, 1996
27) McCutcheon, V. V., Sartor, C. E., Pommer, N. E., et al.: Age at trauma exposure and PTSD risk in young adult women. J Trauma Stress, 23 (6); 811-814, 2010
28) McKenzie, N., Marks, I., Liness, S.: Family and past history of mental illness as predisposing factors in posttraumatic stress disorder. Psychother Psychosom, 70 (3); 163-165, 2001
29) Melton, H., Meader, N., Dale, H., et al.: Interventions for adults with a history of complex traumatic events: the INCiTE mixed-methods systematic review. Health Technol Assess, 24 (43); 1-312, 2020
30) Naal, H., El Jalkh, T., Haddad, R.: Adverse childhood experiences in substance use disorder outpatients of a Lebanese addiction center. Psychol Health Med, 23 (9); 1137-1144, 2018
31) Nanni, V., Uher, R., Danese, A.: Childhood maltreatment predicts unfavorable course of illness and treatment outcome in depression: a meta-analysis. Am J Psychiatry, 169 (2); 141-151, 2012
Medline
32) Neigh, G. N., Ali, F. F.: Co-morbidity of PTSD and immune system dysfunction: opportunities for treatment. Curr Opin Pharmacol, 29; 104-110, 2016
33) 日本精神科救急学会（監修），平田豊明，杉山直也編：精神科救急医療ガイドライン 2015
(https://www.jaep.jp/gl/2015_all.pdf#search='%E7%B2%BE%E7%A5%9E%E7%A7%91%E6%95%91%E6%80%A5%E5%8C%BB%E7%99%82%E3%82%AC%E3%82%A4%E3%83%89%E3%83%A9%E3%82%A4%E3%83%B3+2015)
(参照 2020-12-11)
34) 大阪教育大学学校危機メンタルサポートセンター，兵庫県こころのケアセンター訳：SAMHSA のトラウマ概念とトラウマインフォームドアプローチのための手引き. 2018
(http://www.jhits.org/child/index4.html#no1) (参照 2020-12-11)
35) Palmisano, G. L., Innamorati, M., Vanderlinden, J.: Life adverse experiences in relation with obesity and binge eating disorder: a systematic review. J Behav Addict, 5 (1); 11-31, 2016
36) Sands, A., Thompson, E. J., Gaysina, D.: Long-term influences of parental divorce on offspring affective disorders: a systematic review and meta-analysis. J Affect Disord, 218; 105-114, 2017
37) 清水美紀：児童虐待に関する地域間

比較—『平成 27 年度福祉行政報告例』データの分析—. 社会保障研究, 2 (2-3); 279-308, 2017
38) Tsuboi, S., Yoshida, H., Ae, R., et al.: Prevalence and demographic distribution of adult survivors of child abuse in Japan. Asia Pac J Public Health, 27 (2); NP2578-2586, 2015
39) 坪井 聡: 児童虐待の被害を測定する国際的調査票の日本語版の作成. 学術振興科学研究費助成事業研究成果報告書. 2014
40) Varghese, D., Saha, S., Scott, J. D., et al.: The association between family history of mental disorder and delusional-like experiences: a general population study. Am J Med Genet B Neuropsychiatr Genet, 156B (4); 478-483, 2011
41) Weathers, F. W., Blake, D. D., Schnurr, P. P., et al.: Life Events Checklist for DSM-5 (LEC-5). National Center for PTSD, 2013 (https://www.ptsd.ra.gor/professional/assessment/temeasures/life_events_checklist.asp) (参照 2020-12-11)
42) Wilkins, K. C., Lang, A. J., Norman, S. B.: Synthesis of the psychometric properties of the PTSD checklist (PCL) military, civilian, and specific versions. Depress Anxiety, 28 (7); 596-606, 2011

表 1　基本属性（N＝1,008）

	人数	%
年齢		
10～20 代	211	21
30 代	270	27
40 代	220	22
50 代	177	18
60 代	84	8
70 代以上	46	5
性別（女性）	602	60
臨床診断*		
F0	6	1
F1	7	1
F2	152	15
F3	361	36
F4	199	20
（F4 のうち，F43.1）	(6	1)
F5	9	1
F6	35	3
F7	25	2
F8	188	19
F9	26	3

*ICD-10 に準じた単一診断である．

Table 1 Basic Attributes (N=1,008)

*The diagnosis is a single diagnosis according to ICD-10.

表 2　ACEs の内容別の頻度（N＝1,008）

順位	内容	人数	%
1	心理的虐待	317	33
2	心理的ネグレクト	262	27
3	両親の離婚や別居	241	25
4	身体的虐待	242	25
5	家族の精神障害や自殺	221	23
6	性的虐待	139	14
7	母への暴力（面前 DV）	125	13
8	家族のアルコール/薬物依存	119	12
9	身体的ネグレクト	101	10
10	家族の服役	26	3

内容別の欠損値：順位（欠損数），1（41），2（41），3（36），4（31），5（41），6（31），7（35），8（39），9（37），10（31）
それぞれの内容の有無を問うたため，複数回答である．

Table 2 Frequency of ACEs by content (N=1,008)
Missing values by content: rank (missing number), 1 (41), 2 (41), 3 (36), 4 (31), 5 (41), 6 (31), 7 (35), 8 (39), 9 (37), 10 (31)
As the respondents were asked about the presence or absence of each content, multiple answers were given.

Rank/Content/Number of persons/ %
1 Psychological abuse 317 33
2 Psychological neglect 262 27
3 Parents divorced or separated 241 25
4 Physical abuse 242 25
5 Mental disorder or suicide in the family 221 23
6 Sexual abuse 139 14
7 Violence against mother (face-to-face DV) 125 13
8 Family alcohol/drug abuse 119 12
9 Physical neglect 101 10
10 Family member's incarceration 26 3

表 3　生涯トラウマ体験（PTEs）の頻度（N＝1,008）

	直接体験		目撃		伝聞	
	人数	%	人数	%	人数	%
自然災害	548	54	96	10	159	16
火事や爆発	38	4	245	24	138	14
交通事故	238	24	164	16	210	21
深刻な事故	67	7	54	5	118	12
毒性物質への曝露	20	2	10	1	78	8
身体的暴力	312	31	73	7	83	8
武器を使った暴力	56	6	25	2	73	7
性的暴力	90	9	7	1	94	9
意に反した不快な性的体験	165	16	16	2	76	8
戦闘や戦場体験	4	0	7	1	91	9
監禁	19	2	11	1	58	6
命にかかわる病気や怪我	137	14	103	10	133	13
人間としての重大な苦痛	262	26	40	4	59	6
突然の暴力的死	28	3	28	3	156	15
突然の事故死	18	2	22	2	152	15
自分が原因で他人に深刻な怪我や障害，死を招く	42	4	7	1	43	4
その他のとてもストレスとなった出来事	548	54	43	4	54	5

それぞれの内容の有無を問うたため，複数回答である．

Table 3 Frequency of Lifetime Trauma Experiences (PTEs) (N=1,008)

Direct experience/Witnessed/Hearsay
Number of people % Number of people % Number of people %
Natural disaster 548 54 54 96 10 159 16
Fire or explosion 38 4 245 24 138 14
Traffic accident 238 24 164 16 210 21
Serious accidents 67 7 54 5 118 12
Exposure to toxic substances 20 2 10 1 78 8
Physical violence 312 31 73 7 83 8
Violence with weapons 56 6 25 2 73 7
Sexual violence 90 9 7 1 94 9
Unwanted and uncomfortable sexual experiences 165 16 16 2 76 8
Combat or battlefield experience 4 0 7 1 91 9
Confinement 19 2 11 1 58 6

Life-threatening illness or injury 137 14 103 10 133 13
Serious human suffering 262 26 40 4 59 6
Sudden violent death 28 3 28 3 156 15
Sudden accidental death 18 2 22 2 152 15
I cause serious injury, disability, or death to others 42 4 7 1 43 4
Other very stressful events 548 54 43 4 4 54 5

As the respondents were asked about the presence or absence of each content, multiple answers were given.

表 4　臨床診断別の PTSD ハイリスク群の割合

	PTSD ハイリスク群	
	該当	%
全体 (N＝709)	366	52
F0 (N＝4)	2	50
F1 (N＝6)	3	50
F2 (N＝97)	53	55
F3 (N＝258)	136	53
F4 (N＝141)	76	54
F5 (N＝7)	5	71
F6 (N＝20)	16	80
F7 (N＝18)	7	39
F8 (N＝140)	63	45
F9 (N＝18)	5	28

少なくとも 1 つ PTEs を有するもので，最もつらかった出来事に関して IES-R が 25 点以上であったものを PTSD ハイリスク群とした．

Table 4: Percentage of those in the PTSD High-Risk Group by Clinical Diagnosis
Those with at least one PTE and an IES-R score of 25 or higher for the most distressing event were considered to be at high risk for PTSD.