Childhood Maltreatment Profile in a Clinical Population in China: A Further Analysis with Existing Data of an Epidemiologic Survey

TianHong Zhang[a], **Annabelle Chow**[b], **LanLan Wang**[a], **JunHan Yu**[a], **YunFei Dai**[a], **Xi Lu**[a], **Mary-Jo D. Good**[c], **Byron J. Good**[c], and **ZePing Xiao**[a,*]

[a] Shanghai Mental Health Center, Shanghai Jiaotong University School of Medicine, Shanghai 200030, PR China

[b] Deakin University, School of Psychology, Melbourne, Australia

[c] Department of Global Health and Social Medicine, Harvard Medical School, Boston, MA, USA

Abstract

To determine the lifetime prevalence and diverse profiles of types of childhood maltreatment (CM) in a high-risk clinical sample using standardized assessment tools (Child Trauma Questionnaire, CTQ) in China, Shanghai, 2090 subjects were sampled from the Shanghai Mental Health Centre. Personality disorder (PD) was assessed using the Personality Diagnostic Questionnaire (PDQ-4+) and subjects were interviewed using the Structured Clinical Interview (SCID-II). CTQ was used to assess CM in five domains (emotional abuse, EA; physical abuse, PA; sexual abuse, SA; emotional neglect, EN; and physical neglect, PN). The prevalence estimate of EA in the sample is 22.2%, followed by 17.8% of PA, and 12.5% of SA. The prevalence estimate was more frequent in PN (65.0%) and in EN (34.0%) than in childhood abuse (EA, PA and SA). It seems that males reported more PA and females reported more SA, the older subjects reported more neglect and the younger subjects reported more abuse. There was a higher prevalence of EA and SA in borderline PD patients (44.4%, 22.5%), PA in antisocial PD patients (38.9%). Multi-PD patients reported more forms of CM in childhood. Additionally, factor analysis of CTQ items confirmed factorial validity by identifying a five-factor structure that explained 50% of the total variance. These findings support the view that prevalence of CM was commonly experienced in clinical population during their childhood, especially for subjects with PDs. Factorial validity in PN needs to be further improved, and can in part be culturally explained.

---

* Correspondence to Zeping Xiao, MD, PhD, Shanghai Mental Health Center, 600 South Wanping Road, Shanghai 200030, PR China. xiao_zeping@126.com, or zhang_tianhong@126.com.

1. Introduction

It is becoming increasingly important to consider gene–environment interaction in mental health research. Previous researches repeatedly reported that childhood maltreatment (CM) is associated with a broad range of mental disorders. For example, bipolar disorders [1-3], personality disorders (PDs)[4-7], and schizophrenia [3, 8, 9]. Current literature suggests that unhealthy childhood environments appear to have damaging effects on mental health in adulthood [10, 11]. In particular, negative psychological impacts on an individual with a history of CM are detrimental [3, 12, 13]. For example, there are strong evidence that put forward the associations between childhood traumatic experiences (in terms of abuse and neglect) with alcohol and drug dependence [14, 15], post-traumatic stress disorder [16, 17], depression [18, 19], and psychosis [20-23]. The role of childhood traumatic experiences leading to different types of PDs, such as borderline PD [24-26] antisocial PD [27, 28], schizotypal PD [29], and avoidant PD [30] is also evident.

Although previous studies have contributed to the understanding of the relationship between CM and mental disorders, most researches put forward a different definition of CM. Such disparity in the conceptual definition of CM influences the prevalence rates that were reported. For example, restrictive and objective definitions may result in significantly lower rates being reported, as compared to broader and subjective definitions, which includes sexual, physical and emotional aspects of CM [31]. Although high prevalence rates were found in previous studies, it is likely that the rate in China could be higher. CM is generally under-reported, and some forms of CM are not considered as traumatic experiences in the Chinese culture. For example, for people born before 70's, the lack of food was quite common due to political instability in China then. The unclear definition of CM closed the doors for further investigation of incidence rate. Accordingly, we regard information on the prevalence of CM in the Chinese population as incomplete and inconsistent. In fact, no surveys of this nature have yet been conducted on a national level.

It is clear that environmental factors largely account for the development of personality and psychiatric disorders. However it is important to recognize that the understanding of relationship between CM and mental disorders have mainly derived from Western perspectives and therefore results may not be effectively generalized onto a non-Western setting. Social values, attitudes and norms, and cultural beliefs play an important role in framing the society and dictate what constitutes symptoms of a psychiatric illness or a PD. Certainly, these also affect the estimates of incidence of CM in a particular society. The large population in China allows careful examination of CM in a society where cultural values are distinctly different from that of Western societies. Besides, China is a rapidly developing country, which has been experiencing a lot of economic and social changes since early 1990s. Such changes unquestionably have a potential notable impact on mental health [32]. As a result, nationwide examinations on the incidence of CM, as well as PDs, with standardized assessment measures, trained interviewers, and meticulous procedures are necessary. To the best of our knowledge, no large-scale survey of CM that employs standardized assessment tools and DSM-IV diagnostic criteria, involving mental health outpatients in both rural and urban areas, has been carried out in China.

Our previous paper has reported that early traumatic experiences are strongly related to the development of PDs, and in particular, cluster B PDs[7]. However we were unclear as to the extent of childhood maltreatment being experienced in individuals with PDs. The results then prompted the investigation of identifying CM in China. Hence, the current paper tried to apply the Western-derived concept of CM onto the Asian context and sought to explore prevalence rates and identification of CM in detail. As the impacts of CM are likely to be amplified in individuals with PD, the same sample was used. Nonetheless, data analysis was focused on individuals who reported experiencing CM. As such, we are more able to delineate the composition of CM and its impact on the development of PD. This paper aims to determine: (1) the incidence rates of self-reported CM in the clinical population aged 18 to 60 living in both urban and rural regions of Shanghai, China (2) the socio-demographic correlates of CM; (3) the relationship between experiences of multi-types of CM (sexual abuse, physical abuse, emotional abuse, physical neglect and emotional neglect) and development of DSM-IV PDs; and (4) the diverse profiles of emotional, physical and sexual CM from parents in the special specific Chinese historical background and cultural context.

2. Method

Sample Characteristics

The epidemiologic survey on PD was conducted in the largest mental health service setting in 2006 in Shanghai [33]. There are two outpatient departments in the hospital for various types of mental health service. The psycho-counseling clinic mainly offers counseling and psychotherapy for clients with non-psychotic disorders, and psychiatric clinic mainly offers medication for patients with psychosis. In this survey, 3,402 participants were randomly sampled from psycho-counseling and psychiatric clinics. Considering the psychotic symptoms may impact the assessment of CM and PD, outpatients with acute attacks or recently relapsed psychoses were excluded. Detailed descriptions of the study population have been published previously [7, 33, 34] but are briefly reviewed here. 3,075 patients seeking medical treatment were recruited between May and October 2006. Amongst them, 1,673 outpatients were (54.4%) from the psychiatric clinic, and 1,402 patients were (45.6%) from the psycho-counseling clinic. There were 1,354 males (44.0%) and 1,721 females (56.0%). The average age was 32.0 years (SD = 10.2).

Out of the 3,075 patients included for PD assessment, 2090 (68.0%) subjects, with a mean age of 30.6 years (SD = 9.67), subsequently completed the CTQ self-report. Amongst the 2090 subjects (932 men, 1158 women), 592 outpatients (28.3%) had been diagnosed with schizophrenia and other psychosis at remission stage in our assessment; 581 outpatients (27.8%) had been diagnosed with mood disorders, and 447 outpatients (21.4%) had been diagnosed with neurosis disorder. For this paper, the data analyzed was mainly about the 2090 subjects.

Measures

Demographic Details—A Demographic and Personal Details Questionnaire was used to collect participants' personal details, including: (a) demographics; (b) family and social background; and (c) physical and mental health conditions.

Assessment of Personality Disorders—As detailed in our other studies [7, 33, 34], The Personality Diagnostic Questionnaire fourth edition plus (PDQ-4+) is a concise structured self-report questionnaire that contains 107 true-false items and screens for 10 Axis II DSM-IV PDs. Furthermore, the PDQ-4+ seeks to discriminate between subjects with and without a formal diagnosis of PD [35-37]. The PDQ-4+ takes approximately 20 – 30 minutes to complete. The PDQ4+ is considered highly sensitive (.89), and is also a relatively specific (.65) test. The Structured Clinical Interview for DSM-IV Axis II (SCID-II) is used to diagnose PD in accordance to the DSM-IV criteria. PDs are considered more severe when more number of areas is marked positive during the interview. The SCID-II has a relatively strong test-retest reliability of .70, with a median of coefficient for internal consistency of .70, and is highly consistent (.90) with the clinical diagnosis [38, 39].

Assessment of CM—The Child Trauma Questionnaire (CTQ) consists of 28 self-report items that assess CM in five subscales: EA, PA, SA, EM, and PN. The subscales range from 5 (low level of CM) to 25 (high level of CM) to provide a quantitative index of the severity of abuse. Subjects rate statements about childhood experiences (childhood was defined as prior to age 18) on a five-point Linker scale (1 = never true, to 5 = very often true). Most items are phrased in objective terms (e.g. "When I was growing up, someone touched me in a sexual way or made me touch them"), while other items require some degree of subjective evaluation (e.g. "When I was growing up, I believe I was sexually abused"). Bernstein and Fink reported a satisfactory reliability coefficients for the 5 subscales of CTQ but a particularly strong Cronbach's α coefficient of .92 is reported for the SA subscale. Subjects who scored (i) 8 or above for PA subscale, SA subscale, and PN subscale; (ii) 10 or above for EA subscale; and/or (iii) 15 or above for EN subscale were considered as having experienced CM [40-42].

Procedures

The Research Ethics Committee at the Shanghai Mental Health Centre approved the study in 2006. A two-stage design was employed. Firstly, outpatients were randomly selected from the Shanghai psychiatric and psychological counseling outpatients setting and invited to participate in the study. Written informed consents were obtained. Subjects were first asked to complete the Demographic and Personal Details Questionnaire, and was subsequently administered the PDQ4+ by a trained psychiatrist to screen for the presence of PD. Individuals who met the criteria for DSM-IV PD were recruited for the second stage of the study, which comprised of the SCID-II interview and CTQ. The CTQ, used to assess CM experience, was administered to each participant shortly after the SCID-II interview.

These subjects were interviewed, with no financial remuneration, over a period of 5 months in 2006. Furthermore, the psychiatrists were not informed of the participants' responses to the CTQ during the SCID-II interview so as to reduce potential subjective deviation on the PDQ-4+ results. The interviewer reliability for all three assessments (PDQ4+, SCID-II, and CTQ) was satisfactory.

Statistical analyses

Statistical analyses were conducted using the SPSS Version 16.0. Frequencies and 95% confidence interval (95% CI) of self-reported CM, in accordance to CTQ, were calculated by EA subscale, PA subscale, SA subscale, EN subscale, and PN subscale. Two tailed t-tests were used to compare mean scores of each item in CTQ between participants of opposite sex, as well as participants born in the 70s or before and participants born in the 80s or after. Chi-squared tests were used to compare the proportions of multi-type CM according to CTQ among patients of multi-type PDs. All statistical differences were considered significant at p < .05. The underlying factor structure of 25 items from the CTQ-SF scores was assessed. All 2090 samples were subjected to exploratory factor analysis using principal components analysis with varimax rotation. Following Kaiser's criterion, eigenvalues of 1.0 were chosen to ensure that the extracted components accounted for a reasonably large proportion of the total variance.

Results

CTQ profile of outpatients in mental health service

The following Table 1 reflects the CM profiles of the 2090 subjects recruited from the psychotic and psycho-counseling clinic. The mean (SD) score for each CTQ item is presented and compared with different gender and age groups. Males seem to report more PA (being beaten or punished physically) and PN (lack of food and clothes). Females seem to report more SA (being touched sexually, molested and threatened for sex). We categorized the sample into two groups based on age, i.e. born in the 70s or before (~70s) and born in the 80s or after (80s~). From Table, 1 it can be seen that 80s~ reported more abuse, both physical and emotional, and ~70s reported more neglect (lack of good care, importance of being a member in the family and feelings of being loved).

Frequencies and severity of childhood trauma of outpatients in mental health service

Out of 2090 subjects. 22.2% reported having experienced EA in childhoods, 17.8% reported a history of PA, and 12.5% reported a history of SA. CTQ with childhood neglect experience was more frequently reported. Table 2 presents the severity of frequencies from none to severe.

Frequency of childhood maltreatment of outpatients with PDs

Table 3 shows the breakdown of frequency of CM observed in subjects with PDs. Frequency of CM of individuals with any PD was presented. Comorbidity between types of PD and forms of CM was not shown in this table. Individuals with borderline PD (44.4%), followed by schizotypal (41.4%) and passive-aggressive PD (40.2%) were most likely to have experienced EA. Individuals with borderline PD (22.5%) were most likely to have experienced SA. Individuals with antisocial PD (38.9%) were most likely to have experienced PA. The individuals who experienced childhood neglect were likely to meet the diagnosis for any cluster A PDs, especially schizoid PD and paranoid PD.

Frequency of multi-forms CM of patients with multi-form of PDs

Comorbidity between types of PD and forms of CM was considered. Table 4 presents the frequencies multi-form CM experience of patients diagnosed with multi-forms of PD . There was a higher percentage in the category of Non_CT group among Non_PD group, which was statistically significant (Non_CT 57.9% versus 4or5_CT 34.8%, $P < 0.01$). There was a higher percentage in the category of 4or5_CT group among multi-PDs group, which was statistically significant (2_PD: Non_CT 10.3% versus 4or5_CT 20.7%, $P < 0.01$; 3&more_PD: Non_CT 4.7% versus 4or5_CT 19.0%, $P < 0.01$).

Factor analysis using CTQ-SF items scores

Table 5 presents factor loadings each CTQ item scored by principal components analysis. The results of the five-factor solution largely represent the 5 CTQ subscales including emotional, physical and sexual maltreatment in childhood. SA, EA and PA subscales were quite consistent with the structure of CTQ, however item 2 "I knew there was someone to take care of and protect me" was loaded on EN rather than PN. Only two items loaded on the PN. Together, the five factors accounted for 50% of the variance in the measure. Factor loadings above 0.5 were bolded and relatively small loadings (.49 or less) were blurred.

Discussion

While rapid changes in economy, organization, health and social psychology in modern China is acknowledged, the way culture shapes our understanding of CM in our diverse and changing society should be carefully considered. From our results, it is obvious that the new generation who were born 1980s reported more abuse and less neglect in childhood. This inter-generational difference may be acknowledged by changes in family structure and child rearing practices. Since the implementation of the nationwide "one child policy" in 1980 [43], nuclear families replaced the traditional forms of family. Paternal attention over the only child may have reduced "neglect" but many children felt loss of privacy and freedom in their growing up, which resulted in increasing conflict among family members. The second facet refers to the specific social environment in which poverty is manifested in China in the 1970s, hence it maybe harder for the older generation to meet basic material needs, which led to lower emotional requirements in their childhood.

Our results are consistent with other studies [44, 45] that PA in childhood was more prevalent among males than females. However, females appear to be at greater risk of SA in childhood. Moreover, no significant difference in EA was found between genders, except that females seemed to report more often for the item "parents wished subject was not born". We recognized that there are cultural deviations in child-rearing practices between Chinese and Western societies. A more plausible assumption is that traditional Chinese couples were generally in favor of sons [46], and value sons more because they carry on family names. Therefore, daughters may feel that their parents wished to have a son instead and sometimes parents' unconscious conduct could make daughters feel superfluous. Despite great progress in the reduction of son preference in recent decades in China, the sexual inequality is secretly exists in the upbringing in traditional family which is adverse to the growth of female children. Moreover, the social and cultural value of child-rearing practices in China

may have caused gender differences in childhood experiences. Many parents support the prevalent cultural belief that sons should be beaten for their own good, while daughters should be pampered.

Current understanding of the relationship between CM and mental health conditions associates psychological disorders with unhealthy upbringing. Thus, the subjects of this study may be more willing to report CM. Most patients preferred to attribute their mental problems to CM instead of biological markers due to the stigma attributed to mental illness in China. It is also well known that patients with psychosis seem to have experienced more CM than the general population [47, 48]. Considering these circumstances, it is not surprising that our estimate of both abuse and neglect is higher than the estimate from earlier Western surveys of mental health samples [49]. Besides, self-report abuse rates in the current study appear to be far less common than those reported in the US [50-52]. Nevertheless, higher rates of neglect in China were observed. The most possible reason for this heterogeneity is that, perhaps the Chinese population understands CM from a different cultural perspective. The Chinese culture has a strong emphasis on ingrained individual perseverance and family involvement. Our previous comparative study [53] also found much lower rates of abuse reported by non-clinical samples in China.

Like other surveys [54-56], neglect is found to be more prevalent. Sexual abuse was reported to be a relatively less prevalent type of maltreatment in our current study. As hypothesized, previous surveys estimated that the prevalence of CM was quite varied [57], in which sample characteristics and methodological aspects might account for part of the variance. Hence, it is inappropriate to directly compare rates with foreign studies. Our results contribute to the understanding that childhood traumatic experiences are indeed, common among Chinese psychiatric patients. In China, it is rare to report child abuse cases to child protective services or other authorities. Few would feel comfortable to talk about their childhood traumatic experiences face-to-face. Hence, the self-report methodology may be more suitable in investigating lifetime prevalence rates of CM for populations of cultural backgrounds similar to the Chinese culture.

Personality pathology has always been taken as an intermediate link between CM and mental disorders. Therefore, it is worth to explore the rates of various types of CM experienced by patients with PDs. The inclusion of a large sample of high-risk personality pathological population allowed testing of how the risks between CM and PDs in adulthood might vary by PD types. Our results are consistent with other studies [58, 59] that have examined the effects of child abuse on borderline PD. That is, CM is generally detrimental for adulthood personality, which maybe more relevance to the development of borderline PD. As with prior studies, SA and EA victims appear to be at greater risk for borderline PD than other PDs [7, 60], while PA victims appear to be at greater risk for antisocial PD [61]. Data from the current study indicates that patients with narcissistic PD actually experienced more EN in childhood. Like prior studies, early traumatic experience has the most significant impact on personality pathology, which is characterized by high levels of impulsivity [62, 63]. Furthermore, early experience of neglect may has more impact on cluster A PDs (schizoid and paranoid PD), which reveals that the characteristics of unwarranted mistrust or indifferent to society is formed probably by being neglected by

family and society in early life. There are some controversies in the classification of PDs, one of which is the high co-morbidity rates among various PDs as reported by previous studies reported [34, 64]. Besides the issue of diagnostic overlap in DSM-IV PD criteria, different types of CM experience may have caused the overlap in PDs. From our results, it is clear that clients with multi-PDs seem to report more forms of CM. More research is needed to determine why multi-forms CM is related to multi-PDs.

Our factor analytic findings have several potentially important implications. First, CM is a multidimensional construct that is consistent with a large literature on the CTQ factor analysis [65-67]. Our results indicate that the conceptual validity of the PA, EA and SA subscales for Chinese clinical population is quite good, however, validity of the neglect subscales is questionable. Item 4 (My parents were too drunk or high to take care of the family) and item 26 (There was someone to take me to the doctor if I needed it) did not load onto the PN subscale as suggested. Item 2 (I knew there was someone to take care of and protect me) loaded onto the EN subscale instead of PN subscale. Although our finding has also been observed in many studies conducted in different countries [54, 68], which was inconsistent with the factorial validity of the PN subscale suggested by Bernstein and his colleagues, even the original paper showed that factor loadings for the PN subscale were relatively lower [42, 65]. Interestingly, as gender issue was considered, Wright et al. analysed the factorial validity of CTQ across opposite sex, and also found items 2 and 26 were loaded on EA subscale rather than PN subscale in men [69]. However, PN subscale was a relatively good fit to the data in women. Besides gender differences in the factorial validity of CTQ, this lack of homogeneity in PN subscale may have also been caused by conceptually intermingled between PN and EM or deviations from the social material conditions in child-rearing practices.

Several considerations arise in the interpretation of our findings. First, the rate of CM relied on retrospective self-reports of CM experiences, which are affected by memory and current mental status. Second, CTQ was only conducted with subjects whose PDQ-4+ screening was positive. This may imply that the subjects included in this study are more willing to report negative experiences and this could have resulted in over-estimates of the overall prevalence of CM. Third, the current study applied the cut-off scores determined from Western societies. Thus, the influences of traditional Eastern philosophy and outlook of family value should be considered in interpreting these results. However, our study highlights the need for further service strategies in child protection and child abuse prevention and intervention. Also, it highlights the need to focus on childhood trauma in psychotherapy, especially for borderline PD, in mental health practice.

Acknowledgments

References

1. Garno JL, Goldberg JF, Ramirez PM, Ritzler BA. Impact of childhood abuse on the clinical course of bipolar disorder. Br J Psychiatry. 2005; 186:121–5. [PubMed: 15684234]

2. Hyun M, Friedman SD, Dunner DL. Relationship of childhood physical and sexual abuse to adult bipolar disorder. Bipolar Disord. 2000; 2:131–5. [PubMed: 11252652]

3. Alvarez MJ, Roura P, Oses A, Foguet Q, Sola J, Arrufat FX. Prevalence and clinical impact of childhood trauma in patients with severe mental disorders. J Nerv Ment Dis. 2011; 199:156–61. [PubMed: 21346485]

4. Afifi TO, Mather A, Boman J, Fleisher W, Enns MW, Macmillan H, et al. Childhood adversity and personality disorders: results from a nationally representative population-based study. J Psychiatr Res. 2010; 45:814–22. [PubMed: 21146190]

5. Bandelow B, Krause J, Wedekind D, Broocks A, Hajak G, Ruther E. Early traumatic life events, parental attitudes, family history, and birth risk factors in patients with borderline personality disorder and healthy controls. Psychiatry Res. 2005; 134:169–79. [PubMed: 15840418]

6. Goodman M, Weiss DS, Koenigsberg H, Kotlyarevsky V, New AS, Mitropoulou V, et al. The role of childhood trauma in differences in affective instability in those with personality disorders. CNS Spectr. 2003; 8:763–70. [PubMed: 14712174]

7. Zhang T, Chow A, Wang L, Dai Y, Xiao Z. Role of childhood traumatic experience in personality disorders in China. Compr Psychiatry. 2012; 53:829–36. [PubMed: 22172919]

8. Ucok A, Bikmaz S. The effects of childhood trauma in patients with first-episode schizophrenia. Acta Psychiatr Scand. 2007; 116:371–7. [PubMed: 17919156]

9. Schenkel LS, Spaulding WD, DiLillo D, Silverstein SM. Histories of childhood maltreatment in schizophrenia: relationships with premorbid functioning, symptomatology, and cognitive deficits. Schizophr Res. 2005; 76:273–86. [PubMed: 15949659]

10. Schilling EA, Aseltine RH Jr. Gore S. Adverse childhood experiences and mental health in young adults: a longitudinal survey. BMC Public Health. 2007; 7:30. [PubMed: 17343754]

11. Fosse GK, Holen A. Childhood environment of adult psychiatric outpatients in Norway having been bullied in school. Child Abuse Negl. 2002; 26:129–37. [PubMed: 11933985]

12. Maniglio R. The impact of child sexual abuse on health: a systematic review of reviews. Clin Psychol Rev. 2009; 29:647–57. [PubMed: 19733950]

13. Kendall-Tackett K. The health effects of childhood abuse: four pathways by which abuse can influence health. Child Abuse Negl. 2002; 26:715–29. [PubMed: 12201164]

14. Schafer I, Langeland W, Hissbach J, Luedecke C, Ohlmeier MD, Chodzinski C, et al. Childhood trauma and dissociation in patients with alcohol dependence, drug dependence, or both-A multi-center study. Drug Alcohol Depend. 2010; 109:84–9. [PubMed: 20092967]

15. Bulik CM, Prescott CA, Kendler KS. Features of childhood sexual abuse and the development of psychiatric and substance use disorders. Br J Psychiatry. 2001; 179:444–9. [PubMed: 11689403]

16. Pederson CL, Wilson JF. Childhood emotional neglect related to posttraumatic stress disorder symptoms and body mass index in adult women. Psychol Rep. 2009; 105:111–26. [PubMed: 19810438]

17. Scott ST. Multiple traumatic experiences and the development of posttraumatic stress disorder. J Interpers Violence. 2007; 22:932–8. [PubMed: 17575070]

18. Nanni V, Uher R, Danese A. Childhood maltreatment predicts unfavorable course of illness and treatment outcome in depression: a meta-analysis. Am J Psychiatry. 2012; 169:141–51. [PubMed: 22420036]

19. Hovens JG, Giltay EJ, Wiersma JE, Spinhoven P, Penninx BW, Zitman FG. Impact of childhood life events and trauma on the course of depressive and anxiety disorders. Acta Psychiatr Scand. 2012

20. Read J, Agar K, Argyle N, Aderhold V. Sexual and physical abuse during childhood and adulthood as predictors of hallucinations, delusions and thought disorder. Psychol Psychother. 2003; 76:1–22. [PubMed: 12689431]

21. Ross CA, Anderson G, Clark P. Childhood abuse and the positive symptoms of schizophrenia. Hosp Community Psychiatry. 1994; 45:489–91. [PubMed: 8045548]

22. Bebbington PE, Bhugra D, Brugha T, Singleton N, Farrell M, Jenkins R, et al. Psychosis, victimisation and childhood disadvantage: evidence from the second British National Survey of Psychiatric Morbidity. Br J Psychiatry. 2004; 185:220–6. [PubMed: 15339826]

23. Janssen I, Krabbendam L, Bak M, Hanssen M, Vollebergh W, de Graaf R, et al. Childhood abuse as a risk factor for psychotic experiences. Acta Psychiatr Scand. 2004; 109:38–45. [PubMed: 14674957]

24. Huang J, Yang Y, Wu J, Napolitano LA, Xi Y, Cui Y. Childhood abuse in chinese patients with borderline personality disorder. J Pers Disord. 2012; 26:238–54. [PubMed: 22486453]

25. Igarashi H, Hasui C, Uji M, Shono M, Nagata T, Kitamura T. Effects of child abuse history on borderline personality traits, negative life events, and depression: a study among a university student population in Japan. Psychiatry Res. 2010; 180:120–5. [PubMed: 20488554]

26. Laporte L, Paris J, Guttman H, Russell J. Psychopathology, childhood trauma, and personality traits in patients with borderline personality disorder and their sisters. J Pers Disord. 2011; 25:448–62. [PubMed: 21838561]

27. Smith CA, Ireland TO, Thornberry TP, Elwyn L. Childhood maltreatment and antisocial behavior: comparison of self-reported and substantiated maltreatment. Am J Orthopsychiatry. 2008; 78:173–86. [PubMed: 18954181]

28. Semiz UB, Basoglu C, Ebrinc S, Cetin M. Childhood trauma history and dissociative experiences among Turkish men diagnosed with antisocial personality disorder. Soc Psychiatry Psychiatr Epidemiol. 2007; 42:865–73. [PubMed: 17721668]

29. Steel C, Marzillier S, Fearon P, Ruddle A. Childhood abuse and schizotypal personality. Soc Psychiatry Psychiatr Epidemiol. 2009; 44:917–23. [PubMed: 19333529]

30. Rettew DC, Zanarini MC, Yen S, Grilo CM, Skodol AE, Shea MT, et al. Childhood antecedents of avoidant personality disorder: a retrospective study. J Am Acad Child Adolesc Psychiatry. 2003; 42:1122–30. [PubMed: 12960713]

31. Carlin AS, Kemper K, Ward NG, Sowell H, Gustafson B, Stevens N. The effect of differences in objective and subjective definitions of childhood physical abuse on estimates of its incidence and relationship to psychopathology. Child Abuse Negl. 1994; 18:393–9. [PubMed: 8032969]

32. Phillips MR, Liu H, Zhang Y. Suicide and social change in China. Cult Med Psychiatry. 1999; 23:25–50. [PubMed: 10388942]

33. Zhang TH, Xiao ZP, Wang LL, Dai YF, Zhang HY, Qiu JY, et al. [A cross-sectional survey on personality disorder in mental disorder outpatients in Shanghai.]. Zhonghua Liu Xing Bing Xue Za Zhi. 2010; 31:933–7. [PubMed: 21163000]

34. Zhang T, Wang L, Good MJ, Good BJ, Chow A, Dai Y, et al. Prevalence of personality disorders using two diagnostic systems in psychiatric outpatients in Shanghai, China: a comparison of uni-axial and multi-axial formulation. Soc Psychiatry Psychiatr Epidemiol. 2012; 47:1409–17. [PubMed: 22160097]

35. Hurt SW, Hyler SE, Frances A, Clarkin JF, Brent R. Assessing borderline personality disorder with self-report, clinical interview, or semistructured interview. Am J Psychiatry. 1984; 141:1228–31. [PubMed: 6486257]

36. Hyler SE, Skodol AE, Kellman HD, Oldham JM, Rosnick L. Validity of the Personality Diagnostic Questionnaire--revised: comparison with two structured interviews. Am J Psychiatry. 1990; 147:1043–8. [PubMed: 2197883]

37. Hyler SE, Skodol AE, Oldham JM, Kellman HD, Doidge N. Validity of the Personality Diagnostic Questionnaire-Revised: a replication in an outpatient sample. Compr Psychiatry. 1992; 33:73–7. [PubMed: 1544299]

38. Dai YF, Xiao ZP. A Survey on the Comorbidity of Personality Disorders in Patients Counseling in a Mental Hospital. Chinese Mental Heath Journal. 2006; 18:5–7.

39. Dai YF, Xiao ZP, Wang Z, Zhang HY, Chen J. The reliability and validity of a Chinese version of the Structured Clinical Interview for DSM-IV personality disorders. Shanghai Archives of Psychiatry. 2006; 18:1–4.

40. Fink LA, Bernstein D, Handelsman L, Foote J, Lovejoy M. Initial reliability and validity of the childhood trauma interview: a new multidimensional measure of childhood interpersonal trauma. Am J Psychiatry. 1995; 152:1329–35. [PubMed: 7653689]

41. Bernstein DP, Fink L, Handelsman L, Foote J, Lovejoy M, Wenzel K, et al. Initial reliability and validity of a new retrospective measure of child abuse and neglect. Am J Psychiatry. 1994; 151:1132–6. [PubMed: 8037246]

42. Bernstein, DP.; Fink, L. Childhood Trauma Questionnaire. A Retrospective Self-Report. Manual. The Psychological Corporation, Harcourt Brace & Company; San Antonio: 1998.

43. Lin F. Evolution of China's family planning policy and fertility transition. China Popul Today. 1998; 15:3. [PubMed: 12293912]

44. Araya M, Chotai J, Komproe IH, de Jong JT. Gender differences in traumatic life events, coping strategies, perceived social support and sociodemographics among postconflict displaced persons in Ethiopia. Soc Psychiatry Psychiatr Epidemiol. 2007; 42:307–15. [PubMed: 17370047]

45. Fehon DC, Grilo CM, Lipschitz DS. Gender differences in violence exposure and violence risk among adolescent inpatients. J Nerv Ment Dis. 2001; 189:532–40. [PubMed: 11531205]

46. Gu B, Roy K. Sex ratio at birth in China, with reference to other areas in East Asia: what we know. Asia Pac Popul J. 1995; 10:17–42. [PubMed: 12290692]

47. Green JG, McLaughlin KA, Berglund PA, Gruber MJ, Sampson NA, Zaslavsky AM, et al. Childhood adversities and adult psychiatric disorders in the national comorbidity survey replication I: associations with first onset of DSM-IV disorders. Arch Gen Psychiatry. 2010; 67:113–23. [PubMed: 20124111]

48. Kessler RC, McLaughlin KA, Green JG, Gruber MJ, Sampson NA, Zaslavsky AM, et al. Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. Br J Psychiatry. 2010; 197:378–85. [PubMed: 21037215]

49. Hauser W, Schmutzer G, Brahler E, Glaesmer H. Maltreatment in childhood and adolescence: results from a survey of a representative sample of the German population. Dtsch Arztebl Int. 2011; 108:287–94. [PubMed: 21629512]

50. Bennouna-Greene M, Bennouna-Greene V, Berna F, Defranoux L. History of abuse and neglect in patients with schizophrenia who have a history of violence. Child Abuse Negl. 2011; 35:329–32. [PubMed: 21620159]

51. Schafer I, Fisher HL. Childhood trauma and posttraumatic stress disorder in patients with psychosis: clinical challenges and emerging treatments. Curr Opin Psychiatry. 2011; 24:514–8. [PubMed: 21897251]

52. Allison KC, Grilo CM, Masheb RM, Stunkard AJ. High self-reported rates of neglect and emotional abuse, by persons with binge eating disorder and night eating syndrome. Behav Res Ther. 2007; 45:2874–83. [PubMed: 17659255]

53. Ross CA, Keyes BB, Xiao Z, Yan H, Wang Z, Zou Z, et al. Childhood physical and sexual abuse in China. J Child Sex Abus. 2005; 14:115–26. [PubMed: 16354651]

54. Kim D, Park SC, Yang H, Oh DH. Reliability and validity of the korean version of the childhood trauma questionnaire-short form for psychiatric outpatients. Psychiatry Investig. 2011; 8:305–11.

55. Akyuz G, Sar V, Kugu N, Dogan O. Reported childhood trauma, attempted suicide and self-mutilative behavior among women in the general population. Eur Psychiatry. 2005; 20:268–73. [PubMed: 15935427]

56. Spertus IL, Yehuda R, Wong CM, Halligan S, Seremetis SV. Childhood emotional abuse and neglect as predictors of psychological and physical symptoms in women presenting to a primary care practice. Child Abuse Negl. 2003; 27:1247–58. [PubMed: 14637300]

57. Stoltenborgh M, van Ijzendoorn MH, Euser EM, Bakermans-Kranenburg MJ. A global perspective on child sexual abuse: meta-analysis of prevalence around the world. Child Maltreat. 2011; 16:79–101. [PubMed: 21511741]

58. Evren C, Cinar O, Evren B, Celik S. Relationship of self-mutilative behaviours with severity of borderline personality, childhood trauma and impulsivity in male substance-dependent inpatients. Psychiatry Res. 2012

59. Ball JS, Links PS. Borderline personality disorder and childhood trauma: evidence for a causal relationship. Curr Psychiatry Rep. 2009; 11:63–8. [PubMed: 19187711]

60. Elzy MB. Examining the relationship between childhood sexual abuse and borderline personality disorder: does social support matter? J Child Sex Abus. 2011; 20:284–304. [PubMed: 21660815]

61. Palermo GB. Adult antisocial behavior following childhood abuse: a new protective factor? Int J Offender Ther Comp Criminol. 2004; 48:635–7. [PubMed: 15538022]

62. Cole PM, Llera SJ, Pemberton CK. Emotional instability, poor emotional awareness, and the development of borderline personality. Dev Psychopathol. 2009; 21:1293–310. [PubMed: 19825269]

63. Widom CS, Czaja SJ, Paris J. A prospective investigation of borderline personality disorder in abused and neglected children followed up into adulthood. J Pers Disord. 2009; 23:433–46. [PubMed: 19817626]

64. Marinangeli MG, Butti G, Scinto A, Di Cicco L, Petruzzi C, Daneluzzo E, et al. Patterns of comorbidity among DSM-III-R personality disorders. Psychopathology. 2000; 33:69–74. [PubMed: 10705249]

65. Bernstein DP, Ahluvalia T, Pogge D, Handelsman L. Validity of the Childhood Trauma Questionnaire in an adolescent psychiatric population. J Am Acad Child Adolesc Psychiatry. 1997; 36:340–8. [PubMed: 9055514]

66. Forde DR, Baron SW, Scher CD, Stein MB. Factor structure and reliability of the childhood trauma questionnaire and prevalence estimates of trauma for male and female street youth. J Interpers Violence. 2012; 27:364–79. [PubMed: 21810791]

67. Villano CL, Cleland C, Rosenblum A, Fong C, Nuttbrock L, Marthol M, et al. Psychometric Utility of the Childhood Trauma Questionnaire with Female Street-Based Sex Workers. J Trauma Dissociation. 2004; 5:33–41. [PubMed: 16957783]

68. Gerdner A, Allgulander C. Psychometric properties of the Swedish version of the Childhood Trauma Questionnaire-Short Form (CTQ-SF). Nord J Psychiatry. 2009; 63:160–70. [PubMed: 19021077]

69. Wright KD, Asmundson GJ, McCreary DR, Scher C, Hami S, Stein MB. Factorial validity of the Childhood Trauma Questionnaire in men and women. Depress Anxiety. 2001; 13:179–83. [PubMed: 11413564]

Table 1

Means and standard deviations of each CTQ item, by gender and age (N=2090)

	Overall sample	Man N=932	Women N=1158	Born in the 70s or before (N=1188)	Born in the 80s or after (N=902)
Physical abuse (PA)[a][b]	6.29 (2.385)	6.49 (2.537)	6.12 (2.243)	6.09 (2.198)	6.55 (2.588)
Hit hard enough to see doctor	1.13 (0.512)	1.14 (0.492)	1.12 (0.527)	1.13 (0.528)	1.13 (0.490)
Hit hard enough to leave bruises [ab]	1.28 (0.700)	1.32 (0.753)	1.25 (0.653)	1.24 (0.637)	1.33 (0.772)
Punished with hard objects [ab]	1.41 (0.794)	1.47 (0.854)	1.35 (0.738)	1.33 (0.720)	1.51 (0.871)
Was physically abused [b]	1.30 (0.750)	1.31 (0.745)	1.29 (0.755)	1.27 (0.705)	1.34 (0.804)
Hit badly enough to be noticed [ab]	1.17 (0.577)	1.25 (0.711)	1.11 (0.430)	1.13 (0.499)	1.23 (0.662)
Emotional abuse (EA)[b]	7.73 (3.228)	7.65 (3.109)	7.80 (3.320)	7.43 (3.026)	8.13 (3.437)
Called names by family [b]	1.72 (1.042)	1.70 (1.032)	1.73 (1.049)	1.62 (0.978)	1.85 (1.108)
Parents wished subject was never born [ab]	1.48 (0.918)	1.44 (0.855)	1.52 (0.964)	1.43 (0.890)	1.55 (0.950)
Family said hurtful things [b]	1.73 (0.993)	1.73 (0.965)	1.73 (1.016)	1.65 (0.927)	1.83 (1.066)
Felt hated by family	1.37 (0.818)	1.36 (0.816)	1.38 (0.820)	1.35 (0.804)	1.39 (0.837)
Was emotionally abused [b]	1.43 (0.921)	1.43 (0.915)	1.44 (0.926)	1.38(0.863)	1.51(0.987)
Sexual abuse (SA)[a]	5.87 (1.890)	5.74 (1.675)	5.97 (2.042)	5.83 (1.825)	5.92 (1.972)
Was touched sexually [a]	1.28 (0.655)	1.22(0.613)	1.33 (0.683)	1.28 (0.651)	1.28 (0.660)
Hurt if subject did not do something sexual [a]	1.14 (0.491)	1.10(0.437)	1.17 (0.528)	1.13 (0.468)	1.15 (0.519)
Made to do sexual things	1.21 (0.550)	1.24 (0.574)	1.19 (0.529)	1.21 (0.540)	1.22 (0.563)
Was molested [a]	1.16 (0.480)	1.11 (0.432)	1.19 (0.513)	1.14 (0.469)	1.18 (0.494)
Was sexually abused	1.08 (0.417)	1.07 (0.420)	1.08 (0.415)	1.07 (0.406)	1.09 (0.431)
Physical neglect (PN)[a]	9.09 (3.093)	9.28 (3.059)	8.93 (3.112)	9.15 (3.091)	9.00 (3.094)
Not enough to eat [a]	1.44 (0.795)	1.52 (0.821)	1.39 (0.769)	1.44 (0.795)	1.45 (0.795)
Got taken care of (R) [b]	2.34 (1.381)	2.39 (1.367)	2.30 (1.392)	2.48 (1.438)	2.15 (1.280)
Parents were high or drunk [b]	1.25 (0.734)	1.24 (0.720)	1.25 (0.746)	1.19 (0.625)	1.32 (0.851)
Wore dirty clothes [a]	1.47 (0.855)	1.57 (0.899)	1.39 (0.810)	1.46 (0.859)	1.48 (0.851)
Got taken to a doctor (R)	2.59 (1.559)	2.55 (1.530)	2.62 (1.582)	2.58 (1.558)	2.60 (1.561)
Emotional neglect (EM)[a][b]	12.69 (4.874)	12.40 (4.681)	12.92 (5.014)	12.94 (4.806)	12.37 (4.947)
Made to feel important (R) [b]	3.38 (1.440)	3.32 (1.444)	3.43 (1.436)	3.47 (1.426)	3.26 (1.450)
Felt loved (R) [b]	2.30 (1.334)	2.24 (1.305)	2.35 (1.355)	2.41 (1.358)	2.15 (1.288)
Was looked out for (R) [a]	2.29 (1.224)	2.20 (1.177)	2.35 (1.258)	2.30 (1.232)	2.27 (1.215)
Family felt close (R) [a]	2.43 (1.312)	2.36 (1.257)	2.49 (1.352)	2.47 (1.331)	2.39 (1.285)
Family was source of strength (R)	2.29 (1.381)	2.28 (1.371)	2.29 (1.390)	2.29 (1.389)	2.29 (1.373)

Note. R=reverse coded and scored.

[a]Significant difference between women and men.

[b]Significant difference between ~70s and 80s~ or after.

Table 2

Frequencies of the 5 subscales of CTQ by severity of abuse (N=2090)

CTQ Subscale	Childhood Trauma N (%)	None N (%)	Minimal N (%)	Low to moderate N (%)	Moderate to severe N (%)	Severe N (%)
Physical abuse (PA)	373 (17.8%)	1269 (60.7)	431 (20.6)	233 (11.1)	89 (4.3)	68 (3.3)
Emotional abuse (EA)	464 (22.2%)	663 (31.7)	578 (27.7)	454 (21.7)	239 (11.4)	156 (7.5)
Sexual abuse (SA)	261 (12.5%)	1460 (69.9)	406 (19.4)	163 (7.8)	34 (1.6)	27 (1.3)
Physical neglect (PN)	1358 (65.0%)	323 (15.5)	402 (19.2)	417 (20.0)	291 (13.9)	657 (31.4)
Emotional neglect (EM)	710 (34.0%)	106 (5.1)	260 (12.4)	394 (18.9)	407 (19.5)	923 (44.2)

Note. Severe: at least one of the highest score in subscale was 5; moderate to severe: at least one of the highest score in subscale was 4; Low to moderate: at least one of the highest score in subscale was 3; None or minimal: at least one of the highest score in subscale was 1 or 2.

Table 3

Frequency of CM in PD patients

	EA (Cut points of 10)		PA (Cut points of 8)		SA (Cut points of 8)		EN (Cut points of 15)		PN (Cut points of 8)	
	N (%)	OR (95%CI)	N (%)	OR (95%CI)	N (%)	OR (95%CI)	N (%)	OR (95%CI)	N (%)	OR (95%CI)
Non PD (N=1112)	180 (16.2)	-	172 (15.5)	-	135 (12.1)	-	310 (27.9)	-	713 (64.1)	-
[a] Any PD (N=978)	284 (29.0)	2.12 (1.72-2.61)	201 (20.6)	1.41 (1.13-1.77)	126 (12.9)	1.07 (0.83-1.39)	400 (40.9)	1.79 (1.49-2.15)	645 (66.0)	1.08 (0.91-1.30)
Any Cluster A PD (N=312)	112 (35.9)	2.90 (2.20-3.81)	79 (25.3)	1.85 (1.37-2.50)	41 (13.1)	1.09 (0.75-1.59)	137 (43.9)	2.03 (1.57-2.62)	226 (72.4)	1.47 (1.12-1.94)
Paranoid PD (N=183)	72 (39.3)	3.36 (2.43-4.64)	51 (27.9)	2.11 (1.48-3.01)	24 (13.1)	1.09 (0.69-1.74)	91 (49.7)	2.56 (1.87-3.49)	133 (72.7)	1.49 (1.05-2.10)
Schizoid PD (N=82)	23 (28.0)	2.02 (1.23-3.32)	17 (20.7)	1.43 (0.82-2.49)	10 (12.2)	1.01 (0.51-2.00)	29 (35.4)	1.42 (0.89-2.26)	63 (76.8)	1.86 (1.10-3.12)
Schizotypal PD (N=87)	36 (41.4)	3.65 (2.37-5.63)	29 (33.3)	2.73 (1.73-4.32)	15 (17.2)	1.51 (0.84-2.70)	36 (41.4)	1.83 (1.17-2.84)	57 (65.5)	1.06 (0.67-1.68)
Any Cluster B PD (N=301)	108 (35.9)	2.90 (2.20-3.82)	92 (30.6)	2.41 (1.80-3.21)	58 (19.3)	1.73 (1.24-2.42)	131 (43.5)	1.99 (1.54-2.59)	190 (63.1)	0.96 (1.25-0.74)
Histrionic PD (N=70)	18 (25.7)	1.79 (1.03-3.11)	18 (25.7)	1.89 (1.09-3.29)	13 (18.6)	1.65 (0.89-3.08)	23 (32.9)	1.27 (0.76-2.12)	39 (55.7)	0.70 (1.14-0.43)
Narcissistic PD (N=83)	33 (39.8)	3.42 (2.19-5.33)	28 (33.7)	2.78 (1.74-4.44)	16 (19.3)	1.73 (0.98-3.05)	54 (65.1)	4.82 (3.12-7.44)	54 (65.1)	1.04 (0.65-1.66)
Borderline PD (N=178)	79 (44.4)	4.13 (3.00-5.68)	64 (36.0)	3.07 (2.20-4.29)	40 (22.5)	2.10 (1.42-3.09)	94 (52.8)	2.90 (2.12-3.96)	123 (69.1)	1.25 (0.89-1.76)
Antisocial PD (N=18)	6 (33.3)	2.59 (0.99-6.75)	7 (38.9)	3.48 (1.41-8.60)	2 (11.1)	0.90 (0.21-3.98)	4 (22.2)	0.74 (0.24-2.25)	10 (55.6)	0.70 (1.78-0.28)
Any Cluster C PD (N=510)	141 (27.6)	1.98 (1.54-2.54)	91 (17.8)	1.19 (0.90-1.57)	54 (10.6)	0.86 (0.61-1.20)	190 (37.3)	1.54 (1.23-1.92)	339 (66.5)	1.11 (0.89-1.38)
Avoidant PD (N=248)	75 (30.2)	2.24 (1.65-3.06)	46 (18.5)	1.24 (0.87-1.78)	28 (11.3)	0.92 (0.60-1.42)	94 (37.9)	1.58 (1.19-2.10)	167 (67.3)	1.15 (0.86-1.55)
Dependent PD (N=91)	25 (27.5)	1.96 (1.21-3.17)	17 (18.7)	1.26 (0.72-2.18)	14 (15.4)	1.32 (0.73-2.39)	37 (40.7)	1.77 (1.15-2.74)	62 (68.1)	1.20 (0.76-1.89)
Obsessive-compulsive PD (N=232)	58 (25.0)	1.73 (1.24-2.41)	39 (16.8)	1.10 (0.75-1.62)	20 (8.6)	0.68 (0.42-1.11)	84 (36.2)	1.47 (1.09-1.98)	150 (64.7)	1.02 (0.76-1.38)
In the Appendix of DSM-IV										
Passive-aggressive PD (N=112)	45 (40.2)	3.48 (2.35-5.14)	26 (23.2)	1.65 (1.04-2.63)	25 (22.3)	2.08 (1.30-3.33)	60 (53.6)	2.99 (2.04-4.36)	91 (81.2)	2.42 (1.50-3.91)
Depressive PD (N=260)	86 (33.1)	2.56 (1.90-3.44)	58 (22.3)	1.57 (1.13-2.19)	32 (12.3)	1.02 (0.67-1.53)	123 (47.3)	2.32 (1.77-3.05)	185 (71.2)	1.38 (1.03-1.85)

Note.

[a] Only includes 12 PDs as stated in the DSM-IV, not include PD not otherwise specified (PD NOS).

Table 4

Relationship between multi-form CM and multi-form PDs

CT Childhood Trauma	Non_PD N (%)	1_PD N (%)	2_PD N (%)	3&more_PDN (%)
Non_CT (N=485)	281 (57.9)	131 (27.0)	50 (10.3)	23 (4.7)
1_CT (N=683)	394 (57.7)	180 (26.4)	80 (11.7)	29 (4.2)
2_CT (N=510)	272 (53.3)	120 (23.5)	83 (16.3)[**]	35 (6.9)
3_CT (N=228)	100 (43.9)[**]	65 (28.5)	29 (12.7)	34 (14.9)[**]
4or5_CT (N=184)	64 (34.8)[**]	47 (25.5)	38 (20.7)[**]	35 (19.0)[**]

Note: Non_CT: no reported CM, 1_CT: only reported one form of CM, etc.

Non_PD: no diagnosis of PD, 1_PD: only diagnosed with one PD, 2_PDs: diagnosed with two combined PDs, 3&more_PD: diagnosed with at least three combined PDs.

Chi-squared tests were used to compare the proportions of multi-type CM (and 1_CT) to Non_CT group.

[**]
$P<0.01$(2-tailed).

Table 5

Factorial analysis of the CTQ items: factor loadings, eigenvalues, and explained variance.

| | Rotated 5-Factors | | | | |
	F 1 : Emotional Neglect	F 2 : Sexual Abuse	F 3 : Emotional Abuse	F 4 : Physical Abuse	F 5 : Physical Neglect
ctq01	0.034	0.059	0.183	0.060	**0.734**
ctq02R	**0.626**	0.070	−0.065	0.061	0.221
ctq03	0.026	0.050	**0.596**	0.113	0.164
ctq04	0.137	0.222	0.262	0.215	0.080
ctq05R	**0.518**	−0.033	−0.055	−0.014	0.115
ctq06	0.060	0.091	0.192	0.126	**0.694**
ctq07R	**0.747**	0.029	0.227	0.045	0.017
ctq08	0.124	0.090	**0.614**	0.146	0.101
ctq09	0.073	0.058	0.000	**0.661**	0.107
ctq11	0.097	0.034	0.270	**0.743**	0.007
ctq12	0.054	0.052	0.260	**0.701**	−0.044
ctq13R	**0.729**	0.046	0.268	0.117	−0.078
ctq14	0.129	0.048	**0.706**	0.237	0.039
ctq15	0.102	0.168	0.398	**0.569**	−0.004
ctq17	0.003	0.077	0.093	**0.632**	0.138
ctq18	0.176	0.142	**0.652**	0.139	0.032
ctq19R	**0.721**	0.027	0.314	0.092	−0.129
ctq20	−0.004	**0.753**	0.180	0.043	0.003
ctq21	0.053	**0.780**	−0.006	0.095	0.024
ctq23	−0.043	**0.671**	0.145	−0.006	0.031
ctq24	0.039	**0.705**	0.183	−0.001	0.024
ctq25	0.102	0.353	**0.532**	0.119	0.066
ctq26R	0.430	0.037	−0.080	0.035	0.378
ctq27	0.048	**0.624**	−0.010	0.203	0.114
ctq28R	**0.692**	0.019	0.206	0.086	−0.059
Eigenvalues:	3.067	2.784	2.750	2.484	1.350
% variance:	12.267	23.402	34.401	44.338	49.736