Child abuse and neglect in complex dissociative disorder, abuse-related chronic PTSD and mixed psychiatric samples

Martin J. Dorahy, PhD[1, 2], Warwick Middleton, MD[2], Lenaire Seager, RN[2], Mary Williams, RN[2], & Ron Chambers, DipClinPsych[3]

[1]Department of Psychology
University of Canterbury
Christchurch, New Zealand

[2]The Cannan Institute
Belmont Private Hospital
Brisbane, Australia

[3]Anxiety Disorders Service
Canterbury District Health Board
Christchurch, New Zealand

Running head: Child maltreatment in psychiatric samples

Word count: 5517

Correspondence: Martin Dorahy, Department of Psychology, University of Canterbury, Private Bag 4800, Christchurch, 8140, New Zealand. Email: martin.dorahy@canterbury.ac.nz

Abstract

Only a select number of studies have examined different forms of child maltreatment in complex dissociative disorders in comparison to other groups. Few of these have used child abuse-related chronic PTSD and mixed psychiatric patients with maltreatment as comparison groups. This study examined child sexual, physical and emotional abuse, as well as physical and emotional neglect in dissociative disorder (DD; n = 39), chronic PTSD (C-PTSD; n = 13) and mixed psychiatric (MP; n = 21) samples, all with abuse and neglect histories. The predictive capacity of these different forms of maltreatment across the 3 groups were assessed for pathological dissociation, shame, guilt, relationship esteem, relationship anxiety, relationship depression and fear of relationships. All forms of maltreatment differentiated the DD from the MP group, while sexual abuse differentiated the DD sample from the C-PTSD group. Childhood sexual abuse was the only predictor of pathological dissociation. Emotional abuse predicted shame, guilt, relationship anxiety and fear of relationships. Emotional neglect predicted relationship anxiety and relationship depression. Physical neglect was associated with less relationship anxiety. Different forms of abuse and neglect are associated with different symptom clusters in psychiatric patients with maltreatment histories.

Keywords: Abuse, Neglect, Dissociative Disorders

Child abuse and neglect in complex dissociative disorder, abuse-related chronic PTSD and mixed psychiatric samples

Studies demonstrate that exposure to childhood abuse and neglect not only has widespread effects on psychosocial functioning but can lead to a variety of psychiatric difficulties (e.g., Herman, Perry, & Van der Kolk, 1989; Moskowitz, Schafer, & Dorahy, 2008; Teicher, Samson, Polcari, & McGreenery, 2006). Child abuse and neglect is among the complex array of interacting variables associated with the etiology of severe dissociative disorders (DD) like dissociative identity disorder (DID; Dorahy et al., 2014). Research shows such histories in the large majority of people fulfilling diagnostic criteria for severe dissociative disorders (e.g., Boon & Draijer, 1993; Middleton & Butler, 1998; Putnam, Guroff, Silberman, Barban, & Post, 1986; Ross, Norton, & Wozney, 1989; Şar et al., 2007; Webermann, Brand, & Chasson, 2014). Some studies go beyond self-reported experiences and include verified maltreatment in childhood (e.g., Coons, 1994; Lewis, Yeager, Swica, Pincus, & Lewis, 1997). Yet, many studies examining child abuse and neglect in dissociative disorders have not included comparison groups to determine whether specific types of abuse differentiate dissociative disorders from other groups. When this has occurred, the DD group often presents a more severe abuse and neglect profile. Higher physical, sexual and emotional abuse, along with physical and emotional neglect was evident in a DD sample diagnosed in the general population compared to those without a DD (Şar, Akyüz, & Doğan, 2007). DD samples also report more physical and sexual child abuse than non-dissociative mixed psychiatric groups (e.g., Foote, Smolin. Kaplan, Legatt, & Lipschitz, 2006) Yet, as comparison groups more closely

resemble DD samples in terms of psychiatric status and overlapping symptoms, the differences become more subtle. For example, Fink and Golinkoff (1990) compared a DID sample to borderline personality disorder (BPD) and schizophrenia samples and found that while the level of sexual and physical abuse was higher in the DID compared to schizophrenia group, the DID sample did not differ from the BPD sample. However, the DID sample had more severe and earlier onset sexual abuse than the BPD sample. Those with comorbid DID and BPD report an especially high level of childhood abuse, with more perpetrators and types of abuse than those with BPD alone (Ross, Ferrell, & Schroeder, 2014). In a Turkish study, DID participants (N=20) had higher childhood sexual, physical and emotional abuse histories than those with schizophrenia (N=20) and panic disorder (N=20), but did not differ from the schizophrenia group on emotional neglect (Yargiç, Şar, Tutkun, & Alyanek, 1998). Childhood physical, sexual and emotional abuse, along with physical and emotional neglect was found to be higher in a DID sample than a schizophrenia sample who reported child abuse and neglect (Dorahy et al., 2009). Compared to a sample with complex partial epilepsy (N=20), a DID group had higher childhood sexual abuse (Yargiç et al., 1998). In a sample with a conversion disorder (N = 59), Tezcan et al. (2003) diagnosed 18 with a dissociative disorder (e.g., DID, DDNOS) and compared them to 17 who had low dissociative symptoms. The DD group reported significantly more physical abuse, neglect (not stated if it was emotional or physical) and family chaos in early childhood (i.e., 0-6 years). Compared to the low dissociator conversion group, they also reported more physical abuse, sexual abuse, neglect, family chaos and exposure to violence in later childhood (e.g., 7-12 years). Despite the high levels of sexual and physical abuse in DD samples, there is evidence that

females report even more sexual abuse than males, but differences are not present for physical abuse (Ross & Ness, 2010; cf., Loewenstein & Putnam, 1990).

Child abuse and neglect may give rise to a host of psychological problems underpinning a variety of psychiatric disorders. These include dissociative symptoms (e.g., Dalenberg et al., 2012), shame and guilt (e.g., Fowke, Ross, & Ashcroft, 2012; Karan et al., 2014) and relationship difficulties (e.g., Kendall-Tackett, 2002). Most frequently, childhood physical and sexual abuse have been associated with dissociation in adult trauma disorders, but emotional abuse also makes a contribution. For example, in a large female child-abuse related adult PTSD sample (n = 203), Haferkamp et al. (2015) found that emotional abuse remained the best predictor of dissociative symptoms even after sexual and physical abuse were entered into the analysis. Emotional abuse, along with sexual abuse and physical neglect predicted those with a DD in a female general population sample. Finally, emotional neglect differentiated college students with a DD compared to those without a DD (Şar, Akyuz, Kugu, Ozturk, & Ertem-Vehid, 2006). The associations between various forms of child maltreatment, and shame, guilt and relationship problems have not attracted much empirical attention in those with complex dissociative disorders and related comparison groups.

Present study

Several studies assess child abuse in DD in comparison to other samples, but have either not presented a breakdown of specific forms of abuse and neglect, or have presented only correlational data (e.g., Dell, 2006; Foote, Smolin, Neft, & Lipschitz, 2008). Other studies have compared DD samples with general population comparisons (e.g., Şar et al., 2007). No studies have compared DDs to those with chronic

posttraumatic stress disorder (C-PTSD). In addition, to the authors' knowledge no study has examined the contribution of various forms of child maltreatment to shame, guilt and relationship problems in those with DD and related comparison groups. The current study explored different forms of child maltreatment in those with DD and compared results to those with child abuse-related C-PTSD and those who experienced child abuse and general psychiatric difficulties (e.g., depression, anxiety). The impact of abuse and neglect on pathological dissociation, shame, guilt and relationship difficulties was explored. Given the higher levels of child abuse and neglect in DD samples in previous studies, it was first hypothesized they would have higher levels of abuse and neglect than the comparison groups. Second, abuse and neglect were expected to predict dissociative symptoms, relationship difficulties and the self-conscious emotions of shame and guilt.

Method

Participants

The sample has been described in detail elsewhere (Dorahy et al., 2015). It contained 36 female and three male participants with a psychiatrist and independent structured clinical interview (Dissociative Disorders Interview Schedule; DDIS, Ross et al., 1989) diagnosis of a dissociative disorder (n = 39; 36 DID, three OSDD-type-1; mean age = 44.67, SD = 10.65). Two comparison psychiatric samples were recruited. The first contained 11 female and 2 male participants with chronic PTSD associated with child abuse (n = 13, mean age 38.08, SD = 8.81). The second consisted of 15 female and 6 male mixed psychiatric participants who had a child abuse and neglect history (n = 21; mean age = 41.62, SD = 11.05). No participants in the two comparison groups were positive for DID or OSDD type-1 on the DDIS.

Materials and Procedure

From a larger battery, participants were administered via clinical interview with trained clinicians (MJD, LS) the following measures: The Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998), the Personal Feelings Questionnaire-2 (PFQ-2; Harder & Lewis, 1987), the Dissociative Experiences Scale (DES; Carlson & Putnam, 1993), the Multidimensional Relationship Questionnaire (MRQ; Snell et al., 1996), and the dissociative symptom sections of the DDIS. Measures were randomly presented to avoid ordering effects and ethical approval was granted by the relevant bodies.

The CTQ is a 28 item self-report screening measure for child abuse and neglect. Responses are made on a scale from 'never true' (1) to 'very often true' (5). The CTQ contains 5 subscales: Childhood Emotional Abuse (EA, e.g., verbal assaults or humiliation), Childhood Physical Abuse (PA, e.g., assaults to the body), Childhood Sexual Abuse (SA, e.g., sexual contact or conduct), Childhood Physical Neglect (PN, e.g., failure to receive basic physical needs, like food), and Childhood Emotional Neglect (EN, e.g., failure to receive basic psychological needs, like love). Subscale items are summed and scores can be categorised as low-moderate, moderate-severe and severe-extreme. Scores over 12 for PA, SA, and PN, 15 for EA, and 17 for EN are classified as severe-extreme.

The PFQ-2 measures trait shame and trait guilt across 22 items on a 5 point response scale from 0 (never experienced the feeling) to 4 (experience the feeling continuously or almost continuously) (Harder & Lewis, 1987). The DES contains 28 items assessing dissociative experiences and symptoms across an 11-point scale from 0%

(never) to 100% (always). Eight items of the DES can be used as a marker of pathological dissociative symptoms (Dissociative Experiences Scale-Taxon; DES-T) (Waller et al., 1996).

The MRQ assesses self-concept in intimate relationships using a response format from 0 (Not at all characteristic of me) to 4 (Very characteristic of me). Four MRQ subscales, each containing 5 items, were of interest to the current paper: Relationship Esteem (i.e., positive evaluation of one's capacity as an intimate partner), relationship depression (i.e., negative evaluation of one's intimate relationships), relationship anxiety (i.e., anxious feelings associated with one's intimate relationships), and fear of relationships (i.e., fear of engaging in intimate relationships). The DDIS is a 132 item structured interview for the valid and reliable detection of DSM-IV dissociative disorders and related phenomena (Ross et al., 1989).

Analysis

Chi-squared analyses examined differences in the percentage of participants in each group who reported different forms of abuse. The same technique was used to determine if the groups differed in the percentage of participants reporting each form of abuse at the severe-extreme level. To examine general severity of abuse across the 3 groups MANOVA with simple contrasts anchored to the DD group was performed.

The four relationship markers (relationship anxiety, relationship depression, fear of relationships, relationship esteem) along with pathological dissociation, and trait shame and guilt, were used as criterion variables in regression analyses to determine the predictive value of childhood emotional, physical and sexual abuse and childhood emotional and physical neglect. Adjusted R^2 values are presented.

Results

Table 1 shows the number of participants in each group self-reporting various forms of abuse and their severity levels. For the percentage of participants reporting emotional abuse overall, $\chi^2(2, N = 72) = 4.78$, $p = .09$, or physical abuse overall, $\chi^2(2, N = 72) = 5.09$, $p = .08$, there were non-significant trends across groups. The DD sample had more emotional abuse and physical abuse at the severe-extreme levels than the MP sample ($\chi^2(1, N = 59) = 7.20$, $p < .01$; $\chi^2(1, N = 59) = 9.38$, $p < .01$, respectively), but not the C-PTSD group ($\chi^2(1, N = 51) = .10$, $p = .76$; $\chi^2(1, N = 51) = .82$, $p = .37$, respectively). A significant difference across groups was evident for the presence of sexual abuse, $\chi^2(2, N = 71) = 22.64$, $p < .001$, with more participants in the DD group reporting sexual abuse than the MP sample, $\chi^2(1, N = 58) = 22.30$, $p < .001$, and trending towards a difference with the C-PTSD group, $\chi^2(1, N = 50) = 3.34$, $p = .07$. Within the severe-extreme range, more DD participants reported sexual abuse at this level than both the C-PTSD, $\chi^2(1, N = 50) = 4.98$, $p = .03$, and MP, $\chi^2(1, N = 58) = 31.93$, $p < .001$, groups. For the presence of emotional neglect, the groups did not differ, $\chi^2(2, N = 72) = .42$, $p = .81$. Yet, more participants in the DD sample reported emotional neglect in the severe-extreme range than the MP group, $\chi^2(1, N = 59) = .13.19$, $p < .001$, but not the C-PTSD group, $\chi^2(1, N = 51) = .90$, $p = .34$. Finally, for physical neglect, the percentage of participants reporting this experience differed across groups, $\chi^2(2, N = 72) = 17.89$, $p < .001$, with more participants in the DD group reporting physical neglect than those in the MP group, $\chi^2(1, N = 59) = 14.79$, $p < .001$, but not the C-PTSD sample, $\chi^2(1, N = 51) = .01$, $p = .98$. More participants in the DD group reported physical neglect in the severe-

extreme range than the MP group, $\chi^2(1, N = 59) = 15.79$, $p < .001$, but not the C-PTSD group, $\chi^2(1, N = 51) = 1.16$, $p = .28$.

Table 1 about here

Table 2 shows the general severity for the different types of childhood abuse and neglect in each group. MANOVA reached significance, $V = .46$, $F(10,130) = 3.93$, $p < .001$. Planned simple contrasts anchored to the DD group produced in this sample higher severity of all forms of abuse and neglect in childhood than the MP group, but only more sexual abuse than the CPTSD group.

Table 2 about here

Regression analyses examined the predictive value of child abuse variables on the following outcome variables: pathological dissociation (DES-T), trait shame, trait guilt, relationship esteem, relationship anxiety, relationship depression and fear of relationships. In all analyses tolerance was above .2 and VIF was below 10 suggesting no concerns with multicollinearity (Field, 2013). For pathological dissociation, the abuse and neglect variables predicted a significant 39% of the variance, $F(5,64) = 9.79$, $p < .001$. However, only sexual abuse made a significant unique contribution, $\beta = .41$, $p = .001$, with emotional abuse trending towards significance, $\beta = .25$, $p = .07$. For trait shame, the child maltreatment variables accounted for a significant 29% of variance, $F(5,65) = 6.58$, $p < .001$, with emotional abuse the only significant contributor, $\beta = .40$, $p = .008$. Child

abuse and neglect accounted for a significant 18% of variance in trait guilt, $F(5,65) = 4.03$, $p = .003$, with again only emotional abuse accounting for unique variance, $\beta = .31$, $p = .05$. For relationship esteem, the maltreatment variables accounted for 12% of variance, $F(5,65) = 2.86$, $p = .02$, with emotional neglect falling marginally short of significance, $\beta = -.29$, $p = .055$, and physical, $\beta = .27$, $p = .09$, and sexual, $\beta = -.26$, $p = .07$, abuse trending towards significance. In terms of relationship anxiety, the abuse and neglect variables accounted for a significant 29% of variance, $F(5,65) = 6.74$, $p < .001$, with emotional abuse, $\beta = .34$, $p = .02$, emotional neglect, $\beta = .43$, $p = .002$, and physical neglect, $\beta = -.32$, $p = .046$, making independent contributions. Physical neglect was in the negative direction suggesting it was associated with less relationship anxiety. The maltreatment variables accounted for 12% of variance in relationship depression, $F(5,65) = 2.76$, $p < .03$, with emotional neglect making a unique contribution, $\beta = .30$, $p = .04$, and emotional, $\beta = .29$, $p = .07$, and physical, $\beta = -.28$, $p = .07$, abuse trending in the direction of significance. Finally, for fear of relationships the child abuse and neglect variables accounted for a significant 11% for variance, $F(5,65) = 2.71$, $p < .03$, with emotional abuse the only unique predictor, $\beta = .50$, $p = .003$.

Discussion

This study examined five specific types of abuse and neglect in three psychiatric samples all with a history of child maltreatment. The levels of abuse and neglect were high in all samples. The lowest mean scores for each abuse/neglect variable was higher than those evident in general psychiatric patients (MacDonald, Thomas, MacDonald, & Sciolla, 2015). Nonetheless there was variation between groups. In partial support of the first hypothesis, the DD sample reported more severe emotional and physical abuse, and

emotional and physical neglect than the MP sample but not the C-PTSD sample. Moreover, the DD sample had a higher frequency of individuals reporting severe-extreme maltreatment in these four categories than the MP. Consistent with the first hypothesis, the DD sample had a greater frequency of severe-extreme sexual abuse in childhood and a higher general intensity of this form of mistreatment than both comparison samples. Previous work comparing abuse profiles across psychiatric groups has suggested that dissociative patients tend to have more physical, sexual and emotional maltreatment than those with schizophrenia, anxiety disorders and mixed non-dissociative disorders, more sexual abuse than those with complex partial seizures, and an earlier onset of sexual abuse than BPD (e.g., Fink and Golinkoff, 1990; Foote et al., 2006; Yargiç et al., 1998). The current findings add further detail to this developing picture, with the DD sample having more severe maltreatment on all physical, sexual and emotional markers than those with anxiety and mood disorders who reported an abuse/neglect history in childhood, and more severe sexual abuse than those with child abuse-related chronic PTSD. Whilst not assessed with a specific instrument the clinical profile of this latter group was generally consistent with complex PTSD, as they reported major alterations in affect regulation, sense of self, and somatic functioning, and the majority would have been diagnosed with the dissociative sub-type of PTSD, as 11 of the 13 affirmed depersonalization and derealization on items 12, 13, and 28 of the DES (Dorahy et al., 2015).

Regarding the second hypothesis that abuse and neglect would predict dissociative symptoms, relationship difficulties, shame, and guilt, results demonstrated specific relationships. Prior research using this dataset found that the DD sample had

higher pathological dissociation scores than the other two samples, and the current research found that sexual abuse was the only maltreatment marker to differentiate the DD sample from the other samples. Consequently, it was perhaps not surprising that while childhood maltreatment accounted for over a third of the variance in pathological dissociation scores, sexual abuse was the only significant specific predictor. Studies in mixed psychiatric outpatients have found that both sexual and physical abuse predict dissociation scores (e.g., Draijer & Langeland, 1999; Kirby, Chu & Dill, 1990). In the current sample, with a focus on pathological dissociative symptoms in a collective sample with considerable dissociative pathology (including DID, OSDD-1, and chronic PTSD participants), sexual abuse severity trumped all other abuse types to be the only predictor of severe dissociative symptoms.

Childhood emotional abuse was the only significant predictor of shame and guilt. Karan et al. (2014) found that child emotional abuse was a key predictor of shame in BPD. Emotional abuse has been repeatedly associated with shame, with the taunts, undermining and dismissing remarks, and verbal aggression that make-up this form of abuse eroding self confidence and leaving the person with an internalised view of self that is inferior, inadequate and weak (e.g., Fowke et al., 2012; Harvey, Dorahy, Vertue, & Duthie, 2012). As Shahar, Doron and Szepsenwol (2014) explain, “early experiences of being shamed, by caregivers or peers, lead to intense shame states, which are then internalized and lead to the development of a more stable shame-based self-schema” (p. 2). While emotional abuse has been routinely associated with shame it has not always been related to guilt (e.g., Webb, Heisler, Call, Chickering, & Colburn, 2007). At least in the current sample of abused psychiatric patients, emotional abuse trumped other forms

of child maltreatment in predicting elevated shame and guilt. Given these self-conscious emotions have such an impact on therapy with traumatized individuals, therapists should be cognizant of the damage to self identity created by a childhood history of emotional abuse. Varia and Abidin (1999) found that those reporting emotional abuse reported more problems in relationships than those with no emotional abuse. In the present study, emotional abuse was the only maltreatment variable associated with fear of relationships, and along with emotional neglect predicted more relationship anxiety. Both relationship variables are likely to impinge on emotional contact with the therapist and quality of the therapeutic relationship. More broadly, Teicher et al. (2006) point out that emotional maltreatment in childhood 'may put into force a powerful negative model for interpersonal communication, which is then incorporated as a behavioural response in future relationships" (p. 997).

As well as predicting relationship anxiety, emotional neglect trumped all other variables in being the sole predictor of relationship depression. Not surprisingly, being ignored and emotionally impoverished in childhood in those with a psychiatric disorder is seemingly associated with adult relationships that evoke anxiety and depression. Relationship depression assesses despair and despondence in one's intimate relationships and previous work has found a link between pathological dissociation and this relational marker (Dorahy et al., 2015). Future work with a large sample should examine the degree pathological dissociation mediates the relationship between emotional neglect and relationship depression. In sum, emotional abuse and neglect played a greater role in determining anxiety and depression in relationships and fear of being in relationships than physical and sexual abuse. Ostensibly the eroding nature of emotional abuse and the

desolation of emotional neglect internalizes a view of the self in relationships that activates anxiety and despair in intimate connections. Being ignored, rejected, undermined and put down in relationships in childhood appears to impact on anxiety, depression and fear in adult relationships in psychiatric patients with a childhood trauma history. This interpretation is consistent with previous empirical work in the general population that found emotional abuse and neglect were predictive of fear of abandonment and rejection in adult intimate relationships (Kapeleris & Pavlio, 2011).

Studies examining child abuse and neglect in clinical and non-clinical samples have not tended to report physical neglect as a potent predictor of relationship or personality functioning (e.g., Huh, Kim, Yu, & Chae, 2014; Sudbrack, Manfro, Kuhn, de Carvalho, & Lara, 2015). Yet for the current participants, all with psychiatric difficulties and a history of child maltreatment, physical neglect was curiously associated with lower relationship anxiety. The physical form of neglect, exemplified by not having enough food and clothing, may differ from other forms of maltreatment in that poverty rather than malicious intent may drive it. Consequently there may be less deprivation of emotional care and nurturance that could translate into less anxiety in relationships. In addition, childhood physical neglect may create a desire to care for and nurture others, providing a purpose and role in intimate relationships which may reduce anxiety.

Data should be interpreted in light of the small sample sizes, especially for the chronic PTSD group, as well as the fact data were collected via self-report, and therefore while being consistent with standard psychiatric practice, lack the rigor of more objective assessments. Being mindful of these limitations, the current study found sexual abuse differentiated a complex dissociative disorders sample from chronic PTSD and mixed

psychiatric groups, all with child abuse histories. Sexual abuse predicted pathological dissociative symptoms, while emotional abuse predicted shame, guilt, fear of relationships and relationship anxiety. Emotional neglect predicted relationship anxiety and relationship depression. Emotional maltreatment seems particularly potent in the heightening of self-conscious emotions and relationship concerns, whilst sexual abuse is associated with higher pathological dissociative symptoms. Clinicians should be aware of specific outcomes related to specific forms of child maltreatment in psychiatric patients with maltreatment histories.

References

Bernstein, D.P. & Fink, L. (1998). *Childhood Trauma Questionnaire: A retrospective self-report.* The Psychological Corporation, San Antonio.

Boon, S. & Draijer, N. (1993). Multiple personality disorder in The Netherlands: A clinical investigation of 71 patients. *American Journal of Psychiatry, 159*, 489-494.

Carlson, E.B. & Putnam, F.W. (1993). An update on the dissociative Experiences Scale. *Dissociation, 6,* 16-27.

Coons, P.M. (1994). Confirmation of childhood abuse in child and adolescent cases of multiple personality disorder and dissociative disorder not otherwise specified. *Journal of Nervous and Mental Disease, 182*, 461-464.

Dalenberg, C.J., Brand, B.L., Gleaves, D.H., Dorahy, M.J., Loewenstein, R.J., Cardeña, E.,…Spiegel, D. (2012). Evaluation of the Evidence for the Trauma and Fantasy Models of Dissociation. *Psychological Bulletin, 138*, 550-588.

Dell, P.F. (2006). The Multidimensional Inventory of Dissociation (MID): A comprehensive measure of pathological dissociation, *Journal of Trauma & Dissociation, 7*, 77-106

Draijer, N. & Langeland, W. (1999). Childhood trauma and perceived parental dysfunction in the etiology of dissociative symptoms in psychiatric inpatients. *American Journal of Psychiatry*, 156, 379-385.

Dorahy, M.J., Brand, B.L., Şar, V., Krüger, C., Stavropoulos, P., Martínez-Taboas, A.,

Lewis-Fernández, R., & Middleton, W. (2014). Dissociative identity disorder: An empirical overview. *Australian and New Zealand Journal of Psychiatry, 48(5),* 402 - 417.

Dorahy, M.J., Middleton, W., Seager, L., McGurrin, P., Williams, M., & Chambers, R. (2015). Dissociation, shame, complex PTSD, child maltreatment and intimate relationship self-concept in dissociative disorder, chronic PTSD and mixed psychiatric groups. *Journal of Affective Disorders, 172,* 195-203.

Dorahy, M.J., Shannon, C., Seagar, L., Corr, M., Stewart, K., Hanna, D…Middleton, W. (2009). Auditory hallucinations in dissociative identity disorder and schizophrenia with and without a childhood trauma history: Similarities and differences. *Journal of Nervous and Mental Disease, 197,*892-898.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*, Fourth Ed. Sage: London.

Fink, D., & Golinkoff, M. (1990). MPD, borderline personality disorder and schizophrenia: A comparative study of clinical features. *Dissociation, 3,* 127-134.

Foote, B., Smolin, Y., Kaplan, M., Legatt, M.E., Lipschitz, D. (2006) Prevalence of Dissociative Disorders in Psychiatric Outpatients. *American Journal of Psychiatry, 163,* 623-629.

Foote, B., Smolin, Y., Neft, D.I., & Lipschitz, D. (2008). Dissociative disorders and suicidality in psychiatric outpatients. *The Journal of Nervous and Mental Disease, 196,* 29-36.

Fowke, A., Ross, S., & Ashcroft, K. (2012). Childhood maltreatment and internalized shame in adult with a diagnosis of bipolar disorder. *Clinical Psychology and Psychotherapy, 19,* 450-457.

Haferkamp, L., Bebermeier, A., Moellering, A., & Neuner, F. (2015). Dissociation Is Associated with Emotional Maltreatment in a Sample of Traumatized Women with a History of Child Abuse. *Journal of Trauma & Dissociation, 16*, 86–99.

Harder, D.W., & Lewis, S.J. (1987). The assessment of shame and guilt. In C. Spielberger & J. N. Butcher (Eds.), *Advances in personality assessment, Volume 6* (pp. 89-114). Lawrence Erlbaum: Hillsdale, NJ.

Harvey, S.M., Dorahy, M.J., Vertue, F., Duthie, S. (2012). Childhood Psychological Maltreatment and Perception of Self, Others, and Relationships: A Phenomenological Exploration. *Journal of Aggression, Maltreatment and Trauma, 21,* 237-255.

Herman, J.L., Perry, J.C., & Van der Kolk, B.A. (1989). Childhood trauma in borderline personality disorder. *American Journal of Psychiatry, 146*, 490-495.

Huh, H.J., Kim, S-Y., Yu, J.J., & Chae, J-H. (2014). Childhood trauma and adult interpersonal relationship problems in patients with depression and anxiety disorders. *Annals of General Psychiatry, 13*:26, doi:10.1186/s12991-014-0026-y

Kapeleris, A.R., & Pavlio, S.C. (2011). Identity and emotional competence as mediators of the relation between childhood psychological maltreatment and adult love relationships. *Journal of Aggression, Maltreatment & Trauma, 20,* 617–635.

Karan, E., Niesten, I. J. M., Frankenburg, F. R., Fitzmaurice, G. M., & Zanarini, M. C. (2014). The 16-year course of shame and its risk factors in patients with borderline personality disorder. *Personality and Mental Health, 8*, 169-177.

Kendall-Tackett, K. (2002). The health effects of childhood abuse: Four pathways which abuse can influence health. *Child Abuse and Neglect, 26*, 715-729.

Kirby, J.S. Chu, J.A., Dill, D.L. (1993). Correlates of dissociative symptomatology in patients with physical and sexual abuse histories. *Comprehensive Psychiatry, 34,* 258-263.

Lewis, D.O., Yeager, C.A., Swica, Y., Pincus, J.H., & Lewis, M. (1997). Objective documentation of child abuse and dissociation in 12 murderers with dissociative identity disorder. *American Journal of Psychiatry, 154,* 1703-1710.

Loewenstein, R.J., & Putnam, F.W. (1990). The clinical phenomenology of males with MPD: A report of 21 cases. *Dissociation, 3,* 135-143.

MacDonald, K., Thomas, M.L., MacDonald, T.M., & Sciolla, A.F. (2015). A perfect childhood? Clinical correlates of minimization and denial on the Childhood Trauma Questionnaire. *Journal of Interpersonal Violence, 30*, 988–1009.

Middleton, W., & Butler, J. (1998). Dissociative identity disorder: An Australian series. *Australian and New Zealand Journal of Psychiatry, 32,* 794-804.

Moskowitz, A., Schafer, I., & Dorahy, M.J. (Eds.) (2008). *Psychosis, Trauma and Dissociation: Emerging perspectives on severe psychopathology*. Chichester, West Sussex: Wiley and Sons.

Putnam, F.W., Guroff, J.J., Silberman, E.K., Barban, L., & Post, R.M. (1986). The clinical phenomenology of multiple personality disorder: Review of 100 recent cases. *Journal of Clinical Psychiatry, 47*, 285-293.

Ross, C.A., Ferrell, L., & Schroeder, E. (2014) Co-occurrence of dissociative identity disorder and borderline personality disorder. *Journal of Trauma & Dissociation, 15,* 79-90.

Ross, C.A., Heber, S., Norton, G. R., Anderson, D., Anderson, G., Barchet, P. (1989).

The dissociative disorders interview schedule: a structured interview. *Dissociation*, 2, 169–189.

Ross, C.A. & Ness, L. (2010). Symptom patterns in dissociative identity disorder patients and the general population. *Journal of Trauma & Dissociation, 11*, 458-468

Ross, C.A., Norton, G.R., & Wozney, K. (1989). Multiple personality disorder: An analysis of 236 cases. *Canadian Journal of Psychiatry, 34*, 413-418.

Şar, V., Akyüz, G., & Doğan, O. (2007). Prevalence of dissociative disorders among women in the general population. *Psychiatric Research, 149,* 169-176.

Şar, V., Akyuz, G., Kugu, N., Ozturk, E., & Ertem-Vehid, H. (2006). Axis I dissociative disorder comorbidity in borderline personality disorder and reports of childhood trauma. *Journal of Clinical Psychiatry, 67,* 1583-1590.

Şar, V., Koyuncu, A., Ozturk, E., Yargic, L. I., Kundakci, T., Yazici, A., Kuskonmaz, E., & Aksüt, D. (2007). Dissociative disorders in the psychiatric emergency ward. *General Hospital Psychiatry, 29*, 45-50.

Shahar, B., Doron, G & Szepsenwol, O. (2014). Childhood Maltreatment, Shame-Proneness and Self-Criticism in Social Anxiety Disorder: A Sequential Mediational Model. *Clinical Psychology and Psychotherapy* Doi: 10.1002/cpp.1918

Snell, W.E., Schicke, M., & Arbeiter, T. (1996). *The Multidimensional Relationship Questionnaire: Psychological dispositions associated with intimate relations*. Unpublished manuscript.

Sudbrack, R., Manfro, P.H., Kuhn, I.M., de Carvalho, H.W., & Lara, D.R. (2015).

What doesn't kill you makes you stronger and weaker: How childhood trauma relates to temperament traits. *Journal of Psychiatric Research, 62*, 123-129.

Teicher, M.H., Samson, J.A., Polcari, A., & McGreenery, C.E. (2006). Sticks, stones, hurtful words: Relative effects of various forms of childhood maltreatment. *American Journal of Psychiatry, 163*, 993-1000.

Tezcan, E., Atmaca, M., Kuloglu, M., Gecici, O., Buyukbayram, A., & Tutkun, H. (2003). Dissociative disorders in Turkish inpatients with conversion disorder. *Comprehensive Psychiatry, 44*, 324-330.

Varia, R., & Abidin, R.R. (1999). The minimizing style: Perceptions of psychological abuse and quality of past and current relationships. *Child Abuse & Neglect, 23*, 1041–1055.

Webb, M., Heisler, D., Call, S., Chickering, S.A., & Colburn, T.A. (2007). Shame, guilt, symptoms of depression, and reported history of psychological maltreatment. *Child Abuse & Neglect, 31*, 1143–1153.

Webermann, A.R., Brand, B.L., & Chasson, G.S. (2014) Childhood maltreatment and intimate partner violence in dissociative disorder patients. *European Journal of Psychotraumatology, 5*: 24568 - http://dx.doi.org/10.3402/ejpt.v5.24568

Yargiç, L.I., Şar, V., Tutkun, H., & Alyanek, B. (1998). Comparison of dissociative identity disorder with other diagnostic groups using a structured interview in Turkey. *Comprehensive Psychiatry, 39*, 345-351.

Table 1: Percentage of abuse types in each sample and their severity

		Present	Low-moderate	Moderate-severe	Severe-extreme
Emotional abuse	DD	37 (97.4%)	7 (18.4)	2 (5.3%)	28 (73.7%)
	C-PTSD	12 (92.3%)	2 (15.4%)	1 (7.7%)	9 (69.2%)
	MP	17 (81%)	5 (23.8%)	4 (19%)	8 (38.1%)
Physical abuse	DD	31 (81.6%)	3 (7.9%)	5 (13.2)	23 (60.5%)
	C-PTSD	11 (84.6%)	1 (7.7%)	4 (30.8%)	6 (46.2%)
	MP	12 (57.1%)	2 (9.5%)	6 (28.6%)	4 (19.0%)
Sexual abuse	DD	35 (94.6%)	1 (2.7%)	1 (2.7%)	33 (89.2%)
	C-PTSD	10 (76.9%)	1 (7.7%)	1 (7.7%)	8 (61.5%)
	MP	8 (38.1%)	2 (9.5)	3 (14.3%)	3 (14.3%)
Emotional neglect	DD	31 (81.6%)	1 (2.6%)	4 (10.5%)	26 (68.4%)
	C-PTSD	11 (84.6%)	3 (23.1%)	1 (7.7%)	7 (53.8%)
	MP	16 (76.4%)	9 (42.9%)	3 (14.3%)	4 (19.0%)
Physical neglect	DD	35 (92.1%)	8 (21.1%)	3 (7.9%)	24 (63.2%)
	C-PTSD	12 (92.3%)	3 (23.1%)	3 (23.1%)	6 (46.2%)
	MP	10 (47.6%)	3 (14.3%)	5 (23.8%)	2 (9.5%)

Table 2: CTQ subscale alphas and severity of different forms of abuse across the three samples tested with MANOVA and simple contrasts anchored to the DD group

		DD	C-PTSD	MP
	Scale Alpha	Mean (SD) [n]	Mean (SD) [n]	Mean (SD) [n]
Emotional abuse	.88	19.78 (5.76) [37]	17.23 (5.96) [13] *t*(69) = -1.21, *p* = .23, 95% CI [-6.24, 1.13]	13.76* (5.53) [21] *t*(69) = -3.62, *p* = .001, 95% CI [-9.15, -2.89]
Physical abuse	.90	15.01 (6.13) [37]	13.54 (5.49) [13] *t*(69) = -.65, *p* = .52, 95% CI [-5.21, 2.29]	10.19* (5.19) [21] *t*(69) = -2.88, *p* = .005, 95% CI [-7.99, -1.63]
Sexual abuse	.98	20.76 (6.56) [37]	14.85* (7.91) [13] *t*(68) = -2.74, *p* = .008, 95% CI [-10.21, -1.61]	8.10* (6.08) [21] *t*(68) = -6.93, *p* < .001, 95% CI [-16.31, -9.02]
Emotional neglect	.89	18.84 (5.62) [37]	16.92 (5.35) [13] *t*(69) = -.86, *p* = .39, 95% CI [-5.47, 1.64]	13.48* (5.45) [21] *t*(69) = -3.25, *p* = .002, 95% CI [-8.37, -2.35]
Physical neglect	.84	14.14 (5.43) [37]	13.31 (5.47) [13] *t*(69) = -.41, *p* = .67, 95% CI [-4.11, 2.45]	8.71* (4.16) [21] *t*(69) = -3.78, *p* < .001, 95% CI [-8.20, -2.64]

* p < .05 compared to the DD sample