

RELATIONSHIP BETWEEN ALEXITHYMIA AND CHILDHOOD ABUSE IN A SAMPLE OF UNIVERSITY STUDENTS

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ABSTRACT

The current study investigated the relationship between childhood abuse experience and alexithymia. The Turkish versions of the Childhood Trauma Questionnaire (CTQ), and Toronto Alexithymia Scale (TAS-20) were applied to the participants. It was found that total and sub-scale scores of male students in both CTQ and TAS-20 were higher than female students. A Pearson Correlation analyses indicated a positive correlation between CTQ and TAS-20. The CTQ sub-scale scores were found to be higher in the group with alexithymia than the group without alexithymia. The findings suggested that traumatic events in childhood affect the emotional development and the expression of the emotions later in life.

Keywords: Alexithymia, Childhood abuse, Emotional development

ÜNİVERSİTE ÖĞRENCİLERİNDE ALEKSİTİMİ İLE ÇOCUK İSTİSMARI ARASINDAKİ İLİŞKİ

ÖZET

Bu çalışma çocukluk çağı istismar tecrübesi ile aleksitimi arasındaki ilişkiyi incelemektedir. Katılımcılara Çocukluk Çağı Örselenme Yaşantıları Ölçeği'nin (ÇÖYÖ) Türkçe versiyonu ve Toronto Aleksitimi Ölçeği (TAÖ-20) uygulanmıştır. Çocukluk Çağı Örselenme Yaşantıları Ölçeği (ÇÖYÖ) ve Toronto Aleksitimi Ölçeği'nin (TAÖ-20) toplam ve alt ölçek puanlarının erkek katılımcılarda kadın katılımcılara nazaran daha yüksek olduğu görülmüştür. Pearson korelasyon analizi ÇÖYÖ ve TAÖ-20 arasında pozitif yönde bir korelasyon olduğunu göstermiştir. Aleksitimi özellikleri gösteren grubun ÇÖYÖ alt ölçek puanlarının aleksitimi özellikleri göstermeyen gruba göre daha yüksek olduğu bulunmuştur. Elde edilen bulgular, çocukluk dönemindeki travmatik olayların ileriki yaşlarda duygusal gelişimi ve duyguların ifadesini yaşam sürecinde etkilediğini ortaya koymaktadır.

Anahtar Kelimeler: Aleksitimi, Çocukluk Çağı İstismarı, Duygusal Gelişim

INTRODUCTION

The concept of alexithymia was introduced by Sifneos in 1973 as a condition characterized by the lack of cognitive and emotional features and it was first observed by Nemiah and Sifneos (1970) in patients with psychosomatic complaints (Bankier, Algner, & Bach, 2001: 235). Alexithymia manifests itself with difficulty in recognizing and reflecting emotions, inability to separate physical sensations arising from emotional arousal, suppression of imagination, and high social maladjustment (Rasheed, 2001: 11). Individuals showing alexithymic features have difficulty in developing empathy and maintaining intimate, healthy, and deep relationships (Spitzer, Siebel-Jurges, Barnow, Grabe & Freyberger, 2005: 244; Besharat, 2010: 616; Guttman & Laporte, 2002: 454). A group of theorists described alexithymic features and symptoms as falling into four components: difficulty in recognizing, discriminating and expressing emotions, constricted imaginal processes, operational thinking, and externally oriented cognitive style (Taylor, Bagby & Parker, 1991: 155).

Alexithymia originally was propounded to describe a psychosomatic situation, but later it was understood that alexithymia was not specific to psychosomatic conditions. The relevant literature studied alexithymia mainly on the topics of depression, anxiety disorders, panic disorder, social phobia, and addiction (Evren, Can, Evren & Çakmak, 2000: 171; Leweke, Leichsenring, Kruse & Hermes, 2012: 25; Li, Zhang, Guo & Zhang, 2015: 3; Motan & Gençöz, 2007: 340; Panayiotou, *et al.*, 2015: 17; Porcelli, Guidi & Sirri, 2013: 524; Solmaz, Sayar, Özer, Öztürk & Acar, 2000: 238; Yücel, *et al.*, 1998: 1; Zeitlin & McNally, 1993: 659). However, there are also non-clinical studies about alexithymia (Kokkonen, Karvonen & Veijola, 2001: 473; Loas, 1995: 356). At present, alexithymia is a concept that appears to be a continuous variable (Ogrodniczuk, Piper & Joyce, 2011: 46; Zackheim, 2007: 345) and it is more accurate to speak of its levels rather than its presence or absence (Paez, Basebe & Voldoseda, 1997: 337). It is unclear what causes alexithymia, though many different theories have been proposed, such as; low socio-economic status, attachment problems of mothers and babies, chronic diseases, traumatic events or high stress exposure, disconnection of right and left hemispheres in brain, or genetics (Borens, Gross-Schulte, Jaensch & Kortemme, 1977: 197; Freyberger, 1977: 341; Heiberg & Heiberg, 1978: 208; Montebanocci, Codispoti, Baldaro & Rossi, 2004: 505; Taylor *et al.*, 1991: 157; Ten Houghten, Walter, Hoppe & Bogen, 1987: 1).

Some researchers point toward emotional development factors in the early childhood as a source of alexithymia (McDougall, 1982: 86; Taylor, 2000: 136). There are many studies that link alexithymia beginning in childhood with variables such as family structure with psychological problems, mothers showing alexithymic features, lack of emotional sharing within family, feelings of insecurity and poor maternal care (Fukunishi, *et al.*, 1997: 143; Fukunishi, Sei, Morita & Rahe, 1999: 587; Kench & Irwin, 2000: 743; Lumley, Mader, Gramzow & Papineau, 1996: 211). A study conducted with university students found that those students with high separation anxiety from their mothers in childhood tended to show more alexithymic features in the future (Mallinckrodt, King & Coble, 1998: 499). Studies also have indicated that insecure (Fukunishi, *et al.*, 1999: 587; Ten Houghten, *et al.*, 1987: 7) anxious and avoidant (Durak-Batıgün & Büyükşahin, 2008: 111; Oskis, *et al.*, 2013: 100) attachment styles are the predictors of alexithymia. It was found that alexithymia scores of children at orphanages are higher than those who remain with their families, and the possibility of childhood abuse suggests a link with alexithymia later in life (Erden, 2005: 63). A study analyzed a group of psychotherapy patients and determined a relationship between childhood abuse and alexithymia (Berenbaum, 1996: 591). Overall, childhood emotional abuse is found as a high-risk factor for alexithymia, so if a child is punished for displaying emotions, then the child will hide his/her emotions (Evren, Evren, Dalbudak, Özçelik & Öncü, 2009: 89). A study has argued that the basis of alexithymia lies in childhood, as childhood abuse can cause difficulties on recognition and displaying of emotions (Joukumaa, Luutonen & Von Reventlow, 2008: 321). Both clinical and non-clinical findings have demonstrated that physical and sexual abuse experienced in childhood disrupts awareness towards emotions and the capacity of expressing them and can trigger the alexithymia formation (Berenbaum, 1996: 589; Zlotnick, Mattia & Zimmerman, 2001: 182). According to another point of view, alexithymia has a function of protecting individuals from painful emotions and restriction of emotional expression propounds to be adaptive in some situations (Berthoz, Consoli, Perez-Diaz & Jouvent, 1999: 377).

The literature about alexithymia is mainly focused on the relationship between alexithymia and psychopathological and psychosomatic disorders. However the studies related to childhood abuse suggested as one of the reasons for the formation of alexithymia is limited. The current study investigated the relationship between

alexithymia and childhood abuse. The first hypothesis of the study was that alexithymia has a significant positive correlation with childhood emotional, sexual, and physical abuse. The second hypothesis was that the group with alexithymia encountered more childhood abuse than the groups without alexithymia and borderline alexithymia.

METHOD

Sample

The study sample was chosen from universities in 21 provinces from different regions of Turkey in order to be representative of the general population. The sample was selected by using a random sampling method between students of health, technology, science and social studies departments of each university: 754 women and 377 men, a total of 1131 students participated in the study. The samples' age range was, 17-35 years; mean age was 21.51 (SD = 2.78). Women participants age range 17-35 years, mean age 21.35± 2.82; male participants' age range was 18-35 years, mean age was 21.83 ± 2.69 years. 95.8% of women and 94.4% of men were single, 74.5% of women and 83.4% of men were born in the cities.

Materials

Demographic information form: The demographic information form included questions pertaining age, sex, place of birth, educational level, and marital status. It was developed by researchers.

The Childhood Trauma Questionnaire (CTQ): The CTQ was developed by Bernstein, *et al.* (1994) for screening of the traumatic experiences before the age of 18. The Turkish version of the scale was conducted by Aslan and Alparslan (1999: 275). Each of the scale's 40 items begins with the "When I was a child..." and, depending on the frequency of the experience, participants choose one of the response options of 'never,' 'rarely,' 'sometimes,' 'often,' and 'very often.' High scores indicate greater trauma.

Factorial analysis revealed that the scale has three-factor structure; Emotional Abuse and Emotional Neglect, Sexual Abuse, and Physical Abuse. The emotional abuse and emotional neglect subscale includes 19 items, for example, 'When I was a child, I have felt that I was doing my own care better because no one was paying attention to me,' 'When I was a child, I knew that my family was caring for me and protecting me.'

Physical abuse subscale includes 16 items, such as ‘When I was a child, I have been beaten and hit by the members of my family,’ ‘When I was a child, my family beat me enough to leave a mark or rot my body.’ The sexual abuse subscale has five items including ‘When I was a child, I had intercourse with an adult at least five years older than me.’ ‘When I was a child, someone tried to touch me and/or forced to make touch to him/herself for a sexual purpose.’ The score ranges of the scale are 19-95 for emotional abuse and emotional neglect; 16-80 for the physical abuse subscale; and 5-25 for the sexual abuse subscale (Aslan & Alparslan, 1999: 282). After the excluded items were eliminated with the main component method, Cronbach’s alpha coefficient of the scale was .96. The Childhood Trauma Questionnaire has a three factor structure. Cronbach’s alpha for the subscales were .95 for emotional abuse and emotional neglect; and .94 for the physical abuse and sexual abuse subscales. In order to test the construct validity the correlations between the CTQ and its three subscales and Beck Depression Inventory, Spielberger Trait Anxiety Inventory, Dissociative Experiences Scale and Toronto Alexithymia scale was examined: both CTQ and its subscales were highly correlated with depression, anxiety, dissociative experiences, and alexithymia. Cronbach’s alpha coefficient for the current study was .94 for the CTQ scale, .72 for the sexual abuse subscale, .84 for the physical abuse subscale, and .92 for the emotional abuse and emotional neglect subscale (Aslan & Alparslan, 1999: 283).

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Toronto Alexithymia Scale-20 (TAS-20): Toronto Alexithymia Scale-20 was originally a 26-item self-report questionnaire, later reconfigured by Bagby, Parker, and Taylor (1994) to what currently is a 20-item measure (Taylor, Ryan & Bagby, 1985: 191). Individuals are asked to rate the most appropriate option for each item among “never,” “rarely,” “sometimes,” “often” or “always.” Factor analysis found three factors in the structure of alexithymia scale; (1) difficulty in identifying feelings (DIF), (2) difficulty in describing feelings (DDF), and (3) externally oriented thinking (EOT). Higher scores indicate higher levels of alexithymia (Bagby, Parker & Taylor, 1994: 33).

The validity and reliability study of Toronto Alexithymia Scale-20 in Turkey was performed and translated into Turkish by Güleç, *et al.*, (2009: 214). The study supported the three factor structure of the original study. The difficulty in identifying feelings subscale consists of seven items; ‘When I am annoyed, I can’t tell if I am sorry, angry or afraid,’ ‘I am often confused about my bodily sensations.’ The difficulty in describing

feelings subscale has five items such as ‘It is difficult for me to find appropriate words to my feelings,’ ‘It is difficult for me to describe my feelings even to my closest friends.’ The externally oriented thinking subscale consists of eight items such as ‘I would prefer to talk about daily activities rather than emotions with people,’ ‘I would prefer to watch entertainment programs rather than psychological dramas.’

In Güleç, *et al.*’s study (2009: 216) the alpha value was found to be 0.78 for the total scale, and 0.80, 0.57, 0.63 respectively for the DIF, DDF and EOT subscales. The correlations among the factors were found to be sufficient; 0.53 between the DIF and DDF, 0.12 between DIF and EOT, 0.36 between DDF and EOT. In order to achieve a group without alexithymia Güleç and Yenel (2010: 112) took ‘51’ points as a lowest value, and ‘59’ as the top value to obtain pure alexithymia group.

Data Collection: Instructions about the research were given to participants before they fill the scales. It was stated that all responses would be anonymous and thus participants were not required to write their names on scales. ‘Informed Consent’ containing detailed information about the study was distributed and collected separately. Scales were distributed with an empty envelope and participants were asked to return them in sealed envelopes in order to maintain the confidentiality.

RESULTS

Evaluation of TAS-20 and CTQ scores by Sex of Participants

Independent sample t tests were used for comparison of female and male university students TAS-20 and CTQ scores by gender. Male students received significantly higher scores of CTQ scores on emotional abuse and neglect, sexual abuse and physical abuse subscales than female students ($t(2,1128) = -7.13, p < .001$; $t(2,1129) = -4.74, p < .001$; $t(2,1127) = -4.42, p < .001$). Male students also received significantly higher scores of TAS-20 in total and DIF, DDF and EOT subscales than female students ($t(2,1128) = -5.25, p < .0001$; $t(2,1128) = -3.96, p < .0001$; $t(2,1129) = -3.81, p < .0001$; $t(2,1129) = -4.41, p < .0001$; Table 1).

Correlations between TAS-20 and CTQ

The relationship between TAS-20 and CTQ was investigated via Pearson correlation analysis. A significant positive correlation respectively between physical abuse subscale and DIF ($r = .29$), DDF ($r = .22$), EOT ($r = .15$) subscales and the total score of TAS-20 ($r = .29$); sexual abuse subscale and DIF ($r = .28$), DDF ($r = .16$), EOT ($r = .15$) subscales and total score of TAS-20 ($r = .27$); emotional abuse and neglect subscales and DIF ($r = .33$), DDF ($r = .29$), EOT ($r = .24$) subscales and total score of TAS-20 ($r = .38$). As childhood trauma experiences increase alexithymic features also increase (See Table 2).

Assessment of CTQ Subscale Scores According to TAS-20 Cutoff Points

Güleç and Yenel's (2010: 112) work was taken into account while assessing the groups according to TAS-20 cutoff points. The group with a 51 and below the TAS-20 total score was evaluated as 'the group not having alexithymia,' those with 59 and above were evaluated as 'the group having alexithymia' and the group in between these scores considered as 'borderline alexithymia' group. The 55.8 % of the participants (N=631) was in the group not having alexithymia, 22.5 % (N=254) was in the borderline alexithymia and 21.7 % (N=245) of them was in the alexithymia group. Differences among the three groups and CTQ subscales scores was analyzed by the one-way ANOVA. Results showed significant differences between the groups and the emotional abuse and neglect subscale ($F(2, 1128) = 68.03, p < .0001$), sexual abuse subscale ($F(2, 1129) = 32.10, p < .0001$) and physical abuse subscale ($F(2, 1127) = 39.49, p < .0001$) (see Table 3). The Tukey test was used to test which group caused the significant difference,

and it was found that the differences in emotional abuse and emotional neglect, physical abuse and sexual abuse caused from alexithymia group ($p<.01$).

DISCUSSION

The current study investigated the relationship between childhood abuse and alexithymia. The results showed that men's TAS-20 and CTQ subscales scores were significantly higher than women, TAS-20 total and subscale scores and CTQ subscale scores were in positive correlation, and CTQ subscale scores of alexithymia group were significantly higher than the group not having alexithymia.

The frequency of alexithymia is very high in psychosomatic disorders and psychopathology; however, studies showed that alexithymia is also common in the general population. The prevalence of alexithymia was found 17% in the student group and 23% in the general population in Loas's (1995) study, and 13% in another study (Salminen, Saarijarvi, Aarela, Toikka & Kauhanen, 1999: 75; Loas, 1995: 356). In the present study, individuals having alexithymia are higher than other studies with 21.7% rate. Gürkan (1996: 99) also found a 38.5 % alexithymia prevalence in the general population, which is higher than rates reported in international studies. These differences in prevalence of alexithymia seem to be based on cultural features (see Lesser, 1985: 691). Lesser argued that expressing the feelings verbally is seen as a healthy and mature behavior in Western cultures, whereas the same behavior is not welcomed in Eastern cultures, so eastern people have learned to hide their feelings from childhood and they express their feelings through somatization. In their study conducted with Chinese depressed outpatients, Dere, *et al.* (2013: 367) found that the EOT component of alexithymia was culturally promoted; modernization and Euro-American values were found to be negatively correlated with the EOT subscale of alexithymia. Le, Berenbaum and Raghavan (2002: 341) compared the mean levels and correlates of alexithymia in European American, Asian American, and Malaysian college students and they found that both Asian groups had higher alexithymia levels than the European American group.

Levant, Hall, Williams, and Hasan (2009: 190) argued that men display more alexithymic characteristics than do women and this is a learned condition at the stage of social development which is associated with sex roles. However, studies that examined the relation between alexithymia and gender show different results. Some studies showed similar results with the present study indicating that men display more alexithymic features (Kakkonen, *et al.*, 2001: 473; Salminen Saarijarvi, Aarela, Toikka, & Kauhanen,

1999: 77). In Mason, Tyson, Jones and Potts's (2010: 113) study the prevalence of alexithymia was higher in women than men. Yet some other studies did not find any differences between the sexes in terms of prevalence of alexithymia (Kench & Irwin, 2000: 741; Le, *et al.*, 2002: 341).

Frewen, Dozois, Neufeld and Lanius's study (2012: 5) found a relationship between TAS-20 and CTQ scales. When correlation between scales analyzed in terms of the coefficients, the relationship between emotional neglect subscale of CTQ and TAS-20 total score was stronger ($r=.61$) than other subscales of CTQ. The present study found a significant positive relationship between TAS-20 and CTQ's emotional abuse and emotional neglect, sexual abuse and physical abuse subscales and obtained a result consistent with the literature. Although we found a weaker correlation between CTQ and alexithymia compared to Frewen, *et al.*'s study (2012: 1), when the alexithymia, non-alexithymia and borderline groups were compared in terms of CTQ sub-scales, unlike the correlation results, it was determined a strong significance caused by alexithymia group on three subscales.

Some studies suggested that emotional abuse and neglect are strong predictors of alexithymia (Evren, *et al.*, 2009: 89; Zlotnick, *et al.*, 2001: 177). It was found that emotional abuse experienced in childhood is related to alexithymia in female college students (Hund & Espelage, 2006: 393) and young adults who experienced serious emotional neglect in their lives have greater difficulty in identification of feelings and expressing them verbally than their peers (Smith & Flannery-Schroeder, 2013: 167). It is also suggested that alexithymia is related to physical and sexual abuse. A study showed that male college students who experienced physical abuse in childhood tend to show more alexithymia features (Mitchell & Mazzeo, 2005: 318) yet the same relationship was found also with sexual abuse and alexithymia (Bermond, Moormann, Albach & Van Dijke, 2008: 260). Other studies showed that women who experienced sexual abuse in childhood and adulthood tend to show more alexithymia features than women who experienced sexual abuse in adulthood and both groups displaying greater alexithymia, then women who never experienced such an abuse (Cloitre, Scarvalone & Difede, 1997: 448). Consequently, the present study corresponds with previous studies indicating that childhood abuse disrupts the normal development of the child and results in difficulties in identification of emotions and expressing them verbally later in adulthood.

This study is important in terms of demonstrating the relationship between childhood abuse and alexithymia and contributing to the alexithymia literature. However, while revealing that childhood abuse is an effective factor on alexithymia, it is unable to show this factor's strength. In order to identify the strength of the relationship between childhood abuse and alexithymia, it would be useful to conduct more comprehensive studies which include other variables like; attachment styles, parental absence, psychiatric history of the family, family history of empathy, etc. which are suggested that effects the childhood emotional development and alexithymia.

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Table 1. Comparisons of Toronto Alexithymia Scale-20 (TAS-20) and Childhood Trauma Questionnaire (CTQ) scores by gender.

| | Female | | Male | | t(df) |
|--------------|--------|-------------|------|-------------|-------------|
| | N | M.±SS | N | M. ±SS | |
| TAS-20 Total | 754 | 49.04±10.16 | 376 | 52.38±9.87 | 5.25(1128)* |
| TAS-20 DIF | 754 | 15.02±5.38 | 376 | 16.37±5.48 | 3.96(1128)* |
| TAS-20 DDF | 754 | 12.49±3.73 | 377 | 13.36± 3.46 | 3.81(1129)* |
| TAS-20 EOT | 754 | 21.54±4.00 | 377 | 22.64±3.88 | 4.41(1129)* |
| CTQ SA | 754 | 5.79±2.28 | 377 | 6.55± 3.04 | 4.74(1129)* |
| CTQ PA | 753 | 22.18±7.29 | 376 | 24.39± 9.06 | 4.42(1127)* |
| CTQ EA | 753 | 31.09±12.36 | 377 | 36.98±14.46 | 7.13(1128)* |

*p<.0001

Note. TAS-20 DIF: Difficulty in identifying feelings subscale; TAS-2 DDF: Difficulty in describing feelings subscale; TAS-20 EOT: Externally oriented thinking subscale; CTQ-SA: Sexual abuse subscale; CTQ-PA: Physical abuse subscale; CTQ-EA: Emotional abuse and emotional neglect subscale.

Table 2. Correlation between TAS-20 and CTQ

| Scales | TAS-20 Total | TAS-20 DIF | TAS-20 DDF | TAS-20 EOT | CTQ SA | CTQ PA | CTQ EA |
|--------------|-----------------|---------------|---------------|---------------|-----------|-----------|-----------|
| TAS-20 Total | ---- | .87* | .81* | .62* | .27* | .30* | .38* |
| TAS-20 DIF | | ---- | .66* | .26* | .28* | .29* | .33* |
| TAS-20 DDF | | | ---- | .25* | .16* | .22* | .29* |
| TAS-20 EOT | | | | ---- | .15* | .15* | .24* |
| CTQ-SA | | | | | ---- | .62* | .57* |
| CTQ-PA | | | | | | ---- | .69* |
| CTQ-EA | | | | | | | ---- |

*p<0.01

Note. TAS-20 DIF: Difficulty in identifying feelings subscale; TAS-2 DDF: Difficulty in describing feelings subscale; TAS-20 EOT: Externally oriented thinking subscale; CTQ-SA: Sexual abuse subscale; CTQ-PA: Physical abuse subscale; CTQ-EA: Emotional abuse and emotional neglect subscale.

Tablo 3. CTQ distribution according to TAS-20 cutoff points

| | The group without alexithymia (≤ 51) (n: 631) | | Borderline group (53-58) (n: 245) | | The group having alexithymia (≥ 59) (n: 245) | | |
|--------|---|-------------------|--------------------------------------|-------------------|--|-------------------|--------------------|
| | Min.- | M. \pm SS | Min.- | M. \pm SS | Min.- | M. \pm SS | F(df) |
| | Max. | | Max. | | Max. | | |
| CTQ SA | 5-19 | 5.53 \pm 1.59 | 5-25 | 6.44 \pm 2.98 | 5-25 | 6.95 \pm 3.67 | 32.10 (2,1129)* |
| CTQ PA | 16-55 | 21.23 \pm 5.96 | 16-58 | 23.96 \pm 8.44 | 16-71 | 26.22 \pm 10.52 | 39.49 (2,1127)* |
| CTQ EA | 19-76 | 26.28 \pm 10.50 | 19-81 | 36.14 \pm 14.18 | 19-95 | 36.59 \pm 15.71 | 68.03 (2,1128)* |

P<.0001

Note. CTQ-SA: Sexual abuse subscale; CTQ-PA: Physical abuse subscale; CTQ-EA: Emotional abuse and emotional neglect subscale.