



# SEXUAL TRAUMA TYPE AND ITS RELATION TO ALEXITHYMIA, DISSOCIATION AND POSTTRAUMATIC STRESS DISORDER SYMPTOMS AMONG WOMEN SURVIVORS

## TRAUMA TYPU SEKSUALNEGO A JEJ ZWIĄZEK Z ALEKSYTYMIĄ, DYSOCJACJĄ I POTRAUMATYCZNYM ZABURZENIEM STRESOWYM WŚRÓD KOBIEC OFIAR

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### Abstract

**Purpose:** The aim of the study was to examine the strength of association between posttraumatic stress disorder (PTSD) as well as alexithymia and dissociation relative to persons, who have experienced one of the following types of trauma: trauma associated with rape or sexual violence (ST), other kinds of trauma associated with being a victim of a fire or an accident (NST).

**Method:** The total number of participants amounted to 117 women, among whom 39 fell victims to sexual abuse (ST), 39 experienced non-sexual trauma (NST), and 39 denied ever having come through a traumatic situation (NT). Seventy five women (64.1%) admitted that they suffered from PTSD. Three standardised instrument were used to assess alexithymia (TAS-26), dissociation (CES) and Posttraumatic Stress Disorder (PDS).

**Results:** The ST group is characterised by significantly higher levels of alexithymia, but only in the form of identifying and describing one's own emotions. The surprising finding was that ST and NT groups reported slightly different levels on the general scale of dissociation, which can be explained by the fact that NST group showed significantly more intensive dissociative tendencies in the form of self-absorption, while ST showed it in the form of depersonalisation and amnesia. In the ST group, significantly more serious PTSD-symptoms were confirmed, particularly regarding the avoidance of stimuli related with trauma. These findings suggest that trauma-type (sexual/non-sexual) might be a key factor determining the extent, kind and intensity of trauma-related disorders.

**Conclusions:** Dissociation and alexithymia are very important to the development and maintenance of the symptoms of PTSD. The high levels of alexithymia were associated with more serious problems of affective arousal and regulation of affect after trauma.

**Key words:** PTSD, trauma, dissociation, alexithymia.

### Streszczenie

**Cel:** Celem badania była weryfikacja założeń odnośnie do wpływu rodzaju doznanej traumy (seksualnej bądź innej) na rozwój zaburzeń po traumie oraz na głębokość potraumatycznego zaburzenia stresowego (PTSD). Założono, że u ofiar traumy seksualnej poziom aleksytymii oraz skłonność do patologicznej dysocjacji będą istotnie korelować z głębokością objawów PTSD.

**Metoda:** W badaniu uczestniczyło 117 kobiet, wśród których 39 padło ofiarą przemocy seksualnej (ST), 39 osób doznało urazu niezwiązanego z seksem (NST) i 39 osób, które nie doświadczyły traumy (NT). Siedemdziesiąt pięć kobiet (64,1%) z badanej grupy cierpiało na PTSD. Wykorzystano standaryzowane narzędzia do oceny aleksytymii (TAS-26), dysocjacji (CES) i zaburzenia po-traumatycznego (PDS).

**Wyniki:** W wyniku przeprowadzonej analizy wykazano statystycznie istotne różnice między badanymi grupami w odniesieniu do poziomu PTSD, aleksytymii i dysocjacji. W grupie ST wykazano znacznie głębsze objawy PTSD, szczególnie w zakresie kryterium C, unikania bodźców związanych z traumą. Grupa ST charakteryzuje się znacznie wyższym poziomem aleksytymii w porównaniu z grupą NST, lecz tylko w odniesieniu do podskal identyfikacji emocji i opisu własnych emocji. W odniesieniu do skłonności do patologicznej dysocjacji wykazano odmienny profil dla grupy ST w porównaniu z grupą NST. Podwyższone wyniki w grupie ST uzyskano dla skali depersonalizacji i amnezji oraz dla grupy NST – dla skali zaabsorbowania sobą.

**Wnioski:** Aleksytymia jako cecha osobowości oraz poziom skłonności do patologicznej dysocjacji stanowią ważne czynniki w rozwoju i podtrzymywaniu objawów po traumie w postaci PTSD. Wysoki poziom aleksytymii i depersonalizacji oraz amnezji wiąże się z trudnościami w zakresie rozumienia emocji oraz samoregulacji pobudzenia afektywnego po doznanym urazie, co pogłębia zaburzenia.

**Słowa kluczowe:** PTSD, trauma, dysocjacja, aleksytymia.

## INTRODUCTION

Liotti notes [1] that the sole issue of how the term trauma should be described within the context of the studies on the PTSD appears challenging. Briere [2] points out that technically, it should denote rather a class of major events which are psychologically overwhelming for an individual. Nonetheless, intuitively the word trauma is used to designate either a traumatising occurrence itself or its sequelae. Some scholars criticised the legitimacy of the assumption that psychological trauma is necessarily induced by factors posing a threat to physical integrity exclusively. A number of events, which clearly fail to meet formal requirements of Criterion A, such as harassment at work, stalking, taking care of a terminally ill partner [3, 4] or even prolonged stress documented in military samples [5] have been also shown to trigger PTSD symptoms in some patients. Interestingly enough, DSM in its earlier version (DSM III) also included threats to psychological integrity as a potential source of trauma. In the recently published DSM V [6], even the language stipulating an individual's response to the event, e.g. intensive fear, helplessness or horror, according to DSM-IV [7], has been deleted because that criterion proved to have no utility in predicting the onset of PTSD.

Dissociation is typically defined as a certain incapacity to integrate one's thoughts, feelings or experiences into one's present consciousness [8], and dissociative symptoms have been implicated in such diverse psychopathological conditions as amnesia, fugue states, depersonalisation syndrome, multiple personality disorder, and posttraumatic stress disorder. Some research works support a relationship between the central features of the alexithymia construct and dissociation [9, 10]. However, regular functioning of this mechanism becomes severely impaired in a situation, in which an individual is confronted with a marginally difficult oc-

currence. Some horrid incidents are beyond the scope of the victim's understanding and as such, they cannot be incorporated into the declarative memory; the cognitive difficulties they pose evade their verbal coding and sometimes even a possibility of registering them at all. Dissociation was identified by Salter [11] as the most potent, yet hopeless measure which can be taken subconsciously during a traumatic occurrence, once the other protections fail. The essence of dissociation is – as it follows from its semantic meaning – separation (...). Dissociation can take place between the sense of one's "self" and the body (experience from outside the body, analgesia); between the sense of "self" and the previous identities (dissociative fugue, multiple personality disorder); between the sense of "self" and the current circumstances (withdrawal, flashbacks, shutdown); between the sense of "self" and the past (amnesia); or between the sense of "self" and the emotions (detachment/numbing). According to Marmar's classification [12], dissociative reaction has three dimensions, i.e. observable behaviours and symptoms (such as immobility, inability to produce speech or swooning), cognitive and emotional sensations (perceived altered states of consciousness, arousal accompanied by emotional numbness), as well as underlying psychological processes or functions (here dissociation is understood as an attempt to free oneself from pain). All of the elements mentioned above mark the failure of volition in terms of taking control over one's actions, both mental and bodily, i.e. the impaired recall of information into conscious awareness or "loss of somatic function that has no evident organic basis" [13] marked by "hysterical blindness" [14], an inability to perceive, hear or feel when confronted with a terrifying stimulus.

Alexithymia refers to the inability to label and describe one's own emotional experience. The term was originally coined by Sifneos [15] literally translated into a "lack of words for emotions" (a-lack, lexis-words, thy-

mos-emotions). The construct was initially used to describe patients with somatic symptom disorders, who exhibited certain marked difficulty in verbalising their feelings and observed struggling to differentiate emotional and physiological cues [15] to the chagrin of their psychotherapists [16]. Alexithymia bears some significant resemblance to dissociation in this respect that it is characterised by the presence of a certain barrier, which diminished dramatically one's capability to meaningfully perceive and integrate sensory input – in this case – emotions. Maruszewski and Ścigała [17] called this state a “psychic or emotional blindness,” a term borrowed from the study of Weiskrantz [18]. Weiskrantz described a curious occurrence of blind-sight, which results in an inability to see things which are located within one's field of sight. This condition seems not to impair individual's capacity to avoid object standing on their way. After nearly 45 years of research examining the construct, alexithymia is no longer considered as a deficit in emotional vocabulary per se but as a general deficit in the cognitive processing of emotional experience [19, 20]. On these grounds, many scholars seek a connection between alexithymia and PTSD symptoms. The previous research suggests that alexithymia can develop as a reaction to an acute and severe traumatic event or in the presence of early life stress. Extending these findings, recent studies have illustrated that alexithymia in adults is a predictor for the development of posttraumatic stress disorder (PTSD) after the exposure to psychological or physical trauma. Moreover, early life stress has often been described as a risk factor for emotional dysregulation. Accordingly, previous studies have demonstrated a co-occurrence of early life stress and alexithymia in patients with affective disorders or disorders with prominent affective symptoms such as PTSD. Numerous research findings support this hypothesis [21-28]. Similarly, people diagnosed with PTSD demonstrate a peculiar comorbidity of both arousal and numbing symptoms. Monson [25] suggested that this freezing of sensations may be an observable sign of an attempt to soothe inner turmoil and desensitise pain. Yet, a mere faculty to experience emotions is generally not disrupted by PTSD and, as Litz points out: “the building blocks of emotional experience (...) that were available to the individual before [he or she was] traumatised are intact, as is pre traumatic, elaborated emotional knowledge or schemas” [29]. However, trauma can severely impair the capability to meaningfully interpret and process feelings. Consequently, an alexithymic lineament in individuals with PTSD can be interpreted as an indicator of “an uncoupling of cognitive and emotional processing through which intense emotional states become poorly integrated with verbal cognition” [30]. As such, it can entirely abolish verbal coding of emotions. It is worth noting, that in Frewen's model, alexithymia is simultaneously an indicator of trauma and one of the factors that may in-

crease one's propensity to develop PTSD symptoms after the traumatic occurrence.

Posttraumatic stress disorder (PTSD) is defined by symptoms denoting the re-experiencing of trauma, withdrawal, numbed responsiveness, and heightened arousal, which frequently appear after the exposure to a variety of traumas. Given this cluster of psychological sequelae as well as recent formulations of PTSD as a disorder of affect dysregulation [31], it is not surprising that PTSD has been closely associated with the concept of alexithymia. Alexithymia refers to deficits in the identification, communication, cognitive processing, and elaboration of affect [32]. There is some evidence suggesting that certain trauma characteristics are related to the degree of alexithymia. Rape victims with repeated histories of rape are more likely to be alexithymic than those who have experienced a single rape [33]. Likewise, a positive correlation has been found between the level of combat exposure and the degree of alexithymia [34]. In our study, dissociation and alexithymia are considered to contribute to the enhancement of emotional disengagement from the traumatic event.

## PURPOSE

The present study was designed to examine the relation of trauma-type (sexual [ST]/non-sexual [NST]) with alexithymia, dissociation and PTSD symptoms. The authors hypothesised that sexual trauma survivors (ST) would report higher alexithymia (Hypothesis 1) and dissociation (Hypothesis 2) levels than non-sexual trauma survivors (NST) and no-trauma survivors (NT). Moreover, it was predicted that ST would experience more serious PTSD symptoms than NST (Hypothesis 3). Significant differences were expected not only on main scales but also on subscales.

## METHOD

The TAS-26 (Toronto Alexithymia Scale) formed by Taylor, Bagby and Parker [35] in Polish adaptation [17], is a 26-item self-report measure assessing characteristics typical of alexithymia syndrome. The questionnaire consists of 4 subscales: *Difficulty in identification of emotion*, *Difficulty in describing emotions*, *Operant mode of thinking*, and *Amnesia*. The possible responses to the items are received on a 5-point Likert-type scale. The level of alexithymia can be calculated for separate subscales as well as for general scale by computing the total rating for items on each scale.

The Curious Experiences Checklist CES [36] in Polish adaptation [37]. CES is a 31-item self-report that contains 3 subscales: *Self-Absorption*, *Amnesia*, and *Depersonalisation*. A participant is asked to assess the frequency of experienced dissociative states on a 5-point Likert-

type scale. Composite scores can be calculated for each of the above mentioned subscales, as well as added up to a total sum of gained points.

The diagnosis of PTSD and its severity was accomplished by using Posttraumatic Stress Diagnostic Scale (PSD) [38], in Polish adaptation [39]. This self-report consists of six sections. The first one creates a 12-item list of possible traumatic occurrences. Further sections enable the participant to report the extent, severity, and duration of PTSD-symptoms. The measure consists of 49 items. The scores can be specified on a general scale *Severity of PTSD-Syndrome* as well as on three separate subscales: *B – Re-experiencing of the traumatic event and numbing*, *C – Avoiding of the stimuli related with trauma*, and *D – increased arousal*. The PSD demonstrated good reliability and construct validity [38].

At the beginning of the study, all participants received necessary information about the course of the study. Before starting to fill in the questionnaires, they were asked to sign an informed consent form which included all their tasks and rights. Participants of the study were 117 women, the inhabitants of Warsaw, at the age 18 to 64 years. The mean age was 34.68 years (SD = 13.861). The respondents were mainly the clients of psychiatric health care centres (75%). The rest of the sample were students of Warsaw colleges. Among 117 participants, 39 fell victim to sexual abuse (ST), 39 experienced non-sexual trauma (NST), and 39 denied ever having come through a traumatic situation (NT). The main reason for choosing only women as participants was a higher probability of finding sexual trauma survivors. Findings regarding the epidemiology of sexual trauma indicate that women tend to fall victim to sexual abuse much more often than men [40, 41].

## RESULTS

Analyses were conducted using IBM SPSS (IBM Corp.; Armonk, NY, United States) ver. 23. We conducted one-way independent ANOVA to test the hypothesis (1) that women who are sexual trauma survivors (ST) would report significant higher alexithymia levels than women who experienced non-sexual trauma (NST) and also those who denied ever having gone through a traumatic situation (NT). As predicted, the conducted analyses indicated significant differences,  $F(2,114) = 14.207$ ;  $p < 0.001$ ;  $\eta^2 = 0.20$ . Bonferroni post hoc analyses pointed that ST reported significant ( $p < 0.001$ ) and higher alexithymia ( $M = 76.333$ ;  $SD = 13.111$ ) levels than NST and NT. What's more interesting, there were no significant ( $p = 1$ ) differences between NST ( $M = 65.436$ ;  $SD = 9.960$ ) and NT ( $M = 63.128$ ;  $SD = 11.770$ ). In order to check whether analogous relations occur on particular subscales of TAS-26: Difficulty in identification of emotion (IE), Difficulty in describing emotions (DE), Operant mode of thinking (OMT) and Imagination (I), four addi-

tional one-way independent ANOVA analyses were conducted. As a result, significant effects of trauma type were obtained on DE,  $F(2,114) = 3.882$ ;  $p = 0.023$ ;  $\eta^2 = 0.064$ , and DI,  $F(2,114) = 20.985$ ;  $p < 0.001$ ;  $\eta^2 = 0.269$ , subscales of TAS-26. Both on DE ( $M = 13.949$ ;  $SD = 2.964$ ) and DI ( $M = 34.820$ ;  $SD = 7.240$ ) ST obtained significant and higher results than other groups.

In order to verify hypothesis (2) that women who are sexual trauma survivors (ST) would report significant and higher dissociation levels than women who experienced non-sexual trauma (NST) and also those who denied ever having come through a traumatic situation (NT), one-way independent ANOVA was conducted. Surprisingly, statistical significance was hardly reached,  $F(2,108) = 3.123$ ;  $p = 0.048$ ;  $\eta^2 = 0.055$ . Further, one-way ANOVA analyses pointed significant differences on three subscales of DES: Self-Absorption (SA),  $F(2; 114) = 8.350$ ;  $p < 0.001$ ;  $\eta^2 = 0.128$ , Amnesia (A),  $F(2; 72.992) = 20.422$ ;  $p < 0.001$ ;  $\eta^2 = 0.288$ , and Depersonalisation (D),  $F(2,107) = 11.291$ ;  $p < 0.001$ ;  $\eta^2 = 0.174$ . *Post hoc* analyses showed that ST ( $M = 17.128$ ;  $SD = 9.744$ ) and NST ( $M = 20.461$ ;  $SD = 9,716$ ) indicated significant ( $p < 0.001$ ) but lower SA results than NT ( $M = 25.718$ ;  $SD = 8.568$ ). At the same time, ST reported significant and the highest A results ( $M = 19.103$ ;  $SD = 6.340$ ) and NT significant but the lowest A results ( $M = 11.692$ ;  $SD = 3.614$ ). ST ( $M = 18.627$ ;  $SD = 5.171$ ) reported significant and the highest ( $p < 0.01$ ) D results, while NT ( $M = 14.105$ ;  $SD = 3.319$ ) and NST ( $M = 15.371$ ;  $SD = 4.008$ ) survivors did not differ from each other in D results ( $p = 0.613$ ).

Analyses of U Mann-Whitney test indicated that the PTSD-symptom-depth is significantly different on account of trauma type (hypothesis 3),  $U = 473$ ;  $p = 0.015$ ;  $r = 0.281$ . ST survivors indicated significantly more serious PTSD symptoms ( $M = 29.861$ ;  $SD = 8.903$ ) than NST ( $M = 24.718$ ;  $SD = 10.236$ ). Further, U Mann-Whitney analyses stressed significant differences related to the C-criterion symptoms (*Avoiding of the stimuli related with trauma*),  $U = 316.50$ ;  $p < 0.001$ ;  $r = 0.474$ . ST survivors showed significantly more serious symptoms ( $M = 14.417$ ;  $SD = 4.895$ ) than NST survivors ( $M = 9.077$ ;  $SD = 3.025$ ). As for B,  $U = 581.5$ ;  $p = 0.199$ ;  $r = 0.148$ , and D,  $t(73) = 1.128$ ;  $p = 0.263$ ;  $r = 0.131$ , criterion symptoms no significant differences between NST and ST survivors were found. To check the possibility of predicting the depth of the PTSD based on the level of dissociation and alexithymia, the regression analysis was performed. The proposed model has proved to be a straight line that fits the data well  $F(2,39) = 13.461$ ;  $p < 0.00$ . The level of dissociation and the level of alexithymia as the variables explain the dependent variable depth of PTSD. The relationship between the predictor variables and the dependent variable is strongly positive for dissociation ( $\beta = 0.339$ ;  $p < 0.01$ ) and for alexithymia ( $\beta = 0.398$ ;  $p < 0.01$ ).



## DISCUSSION

Numerous researchers confirm that sexual trauma on account of its nature and stressful intensity may lead to much more extensive psychological outcomes than any other trauma [42]. In our study, we examined the relation of the experienced trauma type (sexual/non-sexual) to alexithymia, dissociation and PTSD symptoms among women. The results suggest that sexual trauma (ST) survivors are likely to experience significant and higher alexithymia and dissociation levels than non-sexual trauma survivors (NST) as well as more serious PTSD symptoms. It is worth indicating that these differences mainly concern the difficulty in the identification of emotions and describing them. The stronger the traumatic experience was, i.e. the sexual experience in our research, the higher were the scores achieved on these scales (TAS-26). These results could be explained by the fact that sexual abuse is indisputably exceptional trauma-type on account of its nature, intensity and the extent of psychological consequences [43, 40, and 20]. It is often treated as the strongest kind of trauma, even though for that reason plenty of conducted studies show, i.e. sexual trauma that is the second cause of PTSD [41, 42]. Women who fell victim to such – and not any other kind of – trauma often experience emotions like shame, terror, disgust, even hate to their own bodies [44]. Trying to defend themselves against such strong emotions, they may form a “defensive shield.” It means that alexithymia traits do not allow, inter alia, to identify and describe emotions concerning traumatic experience. To summarise, the stronger negative affect is experienced, the more intense is the tendency to avoid its identification. The stronger the “alexithymic defense mechanism,” the stronger the acquisition of negative affect which may at any moment find its outlet in PTSD symptoms.

The obtained results concerning dissociation levels among sexual and non-sexual trauma survivors provoked an interesting reflection. On the basis of the conducted analysis, we respectively can accept the hypothesis about significant differences in dissociation level among NST and ST victims. The differences, which were achieved on the main scale of dissociation (CES), came out to be hardly significant in contrast to the differences which were achieved on particular subscales (CES). Women who denied ever having gone through any trauma tend to dissociate in the form of self-absorption. The opposite tendency occurred among women with diagnosed PTSD. They presented a significant and higher level of the amnesia and depersonalisation subscales than other groups, while significant and lower on self-absorption subscale. The more traumatic the event was (we found sexual trauma to be the most traumatic event), the stronger was the women’s tendency to dissociate in the amnesia but depersonalisation form, but the weaker

the tendency to self-absorption. It is very important to mention that the dissociation phenomenon undergoes gradation. It is possible to distinguish its pathological and non-pathological forms [20]. Amnesia, depersonalisation, and derealisation are claimed to be pathological forms of dissociation, while self-absorption – as a non-pathological one [11]. In the face of having experienced trauma, the victim does not want to confront oneself (absorb oneself), although it is difficult to endure emotions; the victim simply avoids them. If one does not realise that the painful strength of emotions is evoked by trauma, nothing prevents the person’s immersion in the internal world of emotions. The woman who does not struggle with internal suffering related to trauma, does not feel any need to use depersonalisation or amnesia as forms of dissociation. She simply does not need to learn the “effective” way to either ignore heavy pain or to blot out the memory of trauma by changing the sense of time, place and person [40, 11, 20].

## CONCLUSIONS

Upon the analysis performed in this study, a conclusion can be drawn that the intentional trauma causes much stronger and more serious posttraumatic disorder compared to the unintentional trauma. As the deficits in identifying emotions may lead to the avoidance of confrontation with the traumatic event (i.e. person not only avoids talking about it, but also anything that might remind it), the victim is deprived of the ability to work through it, think it over, give it a meaning, which in turn leads to the development of even more destructive patterns of behaviour. This study clearly indicated that intentional trauma definitely evokes more severe disorders in victims. Women with the history of sexual abuse turn out to be perfect in running away from themselves but it is too difficult for them to endure their own emotions in the form of alexithymia and dissociation. Finally, a partial diversity of post-traumatic disorder symptoms, based on trauma type, could influence the process of crisis intervention or victims of trauma treatment.

## AUTHOR CONTRIBUTIONS

Substantial contributions to the conception or design of the work (EZS); or the acquisition, analysis (EZS, MS), or interpretation of data for the work (EZS, MS). Drafting the work or revising it critically for important intellectual content (EZS). Final approval of the version to be published (EZS). Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved (EZS).

**Conflict of interest/Konflikt interesu**

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**References/Piśmiennictwo**

- Liotti G. Trauma, dissociation and disorganized attachment: three strands of a single braid. *Psychotherapy: Theory, Research, Practice, Training* 2004; 41: 472-486.
- Briere J, Scott C. *Principles of trauma therapy: A guide to symptoms, evaluation, and treatment*. 2<sup>nd</sup> ed. Thousand Oaks, CA: Sage; 2012.
- Pathe M, Mullen PE. The impact of stalkers on their victims. *British Journal of Psychiatry* 1997; 170: 12-17.
- Scott MJ, Stradling SG. Posttraumatic stress disorder without the trauma. *British Journal of Clinical Psychology* 1994; 33: 71-74.
- Breslau N, Davis GC. Posttraumatic stress disorder – the etiologic specificity of wartime stressors. *American Journal of Psychiatry* 1987; 144: 578-583.
- American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. 5<sup>th</sup> ed. Washington, DC; 2013.
- American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 4<sup>th</sup> ed. Text revision. Washington, DC: American Psychiatric Publishing; 2000.
- Bernstein EM, Putnam FW. Development, reliability, and validity of a dissociation scale. *Journal of Nervous and Mental Disease* 1986; 174: 727-735.
- Elzinga B, Bermond B, Van Dyck R. The relationship between dissociative proneness and alexithymia. *Psychotherapy and Psychosomatics* 2002; 71: 104-111.
- Bermond B, Moormann PP, Albach F, van Dijke A. Impact of severe childhood sexual abuse on the development of alexithymia in adulthood. *Psychotherapy and Psychosomatics* 2008; 77: 260-261.
- Salter AC. *Pokonywanie traumy. Jak zrozumieć i leczyć dorosłe ofiary wykorzystywania seksualnego w dzieciństwie*. Poznań: Media Rodzina; 2003.
- Marmar CR, Weiss DS, Schlenger WW, Fairbank JA, Jordan BK, Kulka RA, Hough RL. Posttraumatic dissociation and posttraumatic stress in male Vietnam theater veterans. *American Journal of Psychiatry* 1994; 151: 902-907.
- Schauer M, Elbert T. Dissociation Following Traumatic Stress. *Journal of Psychology* 2010; 218: 109-127.
- Nijenhuis ERS, Van Engen A, Kusters I, Van der Hart O. Peritraumatic somatoform and psychological dissociation in relation to recall of childhood sexual abuse. *Journal of Trauma and Dissociation* 2001; 2: 49-68.
- Sifneos PE. The prevalence of alexithymic characteristics in psychosomatic patients. *Psychotherapy and Psychosomatics* 1973; 22: 250-262.
- Krystal H. *Integration and self-healing: Affect, trauma and alexithymia*. NY: Analytic Press, Hillsdale; 1988.
- Maruszewski T, Ścigała E. *Emocje – Aleksytymia – Poznanie. (Emotion – Alexithymia – Cognition)*. Poznań: Wydawnictwo Fundacji Humaniora; 1998.
- Weiskrantz L. *Blindsight: a case study and its implications*. Oxford: Clarendon Press; 1986.
- Lane RD, Ahern GL, Schwartz GE, Kaszniak AW. Is alexithymia the emotional equivalent of blindsight? *Biological Psychiatry* 1997; 42: 834-844.
- Zdankiewicz-Ścigała E. *Aleksytymia i dysocjacja jako podstawowe czynniki zjawisk potraumatycznych*. Warszawa: Scholar; 2017.
- Badura AS. Theoretical and empirical exploration of the similarities between emotional numbing in posttraumatic stress disorder and alexithymia. *Anxiety Disorders* 2003; 17: 349-360.
- Cloitre M, Scarvalone P, Difede J. Posttraumatic stress disorder, self- and interpersonal dysfunction among sexually retraumatized women. *Journal of Traumatic Stress* 1997; 10: 437-452.
- Fukunishi I, Sasaki K, Chishima Y, Anze M, Saijo M. Emotional disturbances in trauma patients during the rehabilitation phase: Studies of posttraumatic stress disorder and alexithymia. *General Hospital Psychiatry* 1996; 18: 121-127.
- Hyer L, Woods G, Summers MN, Boudswyns P, Harrison WR. Alexithymia among Vietnam veterans with posttraumatic stress disorder. *Journal of Clinical Psychiatry* 1990; 51: 243-247.
- Monson CM, Price JL, Rodriguez BF, Ripley MP, Warner RA. Emotional deficits in military-related PTSD: An investigation of content and process disturbances. *Journal of Traumatic Stress* 2004; 17: 275-279.
- Söndergaard HP, Theorell T. Alexithymia, emotions and PTSD: Findings from a longitudinal study of refugees. *Nordic Journal of Psychiatry* 2004; 53: 185-191.
- Yehuda R, Steiner A, Kahana B, Binder-Brynes K, Southwick SM, Zelman S. Alexithymia in Holocaust survivors with and without PTSD. *Journal of Traumatic Stress* 1997; 10: 93-100.
- Zlotnick C, Mattia JI, Zimmerman M. The relationship between posttraumatic stress disorder, childhood trauma and alexithymia in an outpatient sample. *Journal of Traumatic Stress* 2001; 14: 177-188.

29. Litz BT, Orsillo SM, Kaloupek D, Weathers F. Emotional processing in posttraumatic stress disorder. *Journal of Abnormal Psychology* 2000; 109: 26-39.
30. Frewen PA, Dozois DJA, Lanius RA, Neufeld RWJ. Meta-analysis of alexithymia in posttraumatic stress disorder. *Journal of Traumatic Stress* 2008; 21: 243-246.
31. Stone AM. Trauma and affect: Applying the language of affect theory to the phenomenon of traumatic stress. *Psychiatric Annals* 1993; 23: 567-584.
32. Taylor GJ, Bagby RM, Parker DA. Disorders of affect regulation: Alexithymia in medical and psychiatric illness. Cambridge: Cambridge University Press; 1997.
33. Zeitlin SB, McNally RJ, Cassidy KL. Alexithymia in victims of sexual assault: An effect of repeated traumatization? *American Journal of Psychiatry* 1993; 150: 658-660.
34. Zeitlin SB, Lane RD, O'Leary DS, Schrift MJ. Interhemispheric transfer deficit and alexithymia. *American Journal of Psychiatry* 1989; 146: 1434-1439.
35. Taylor GJ, Bagby RM, Parker JDA. The alexithymia construct. A potential paradigm for psychosomatic medicine. *Psychosomatics* 1991; 32: 153-164.
36. Goldberg L. The Curious Experiences Survey, a revised version of the Dissociative Experiences Scale: factor structure, reliability and relations to demographic and personality variables. *Psychological Assessment* 1999; 11: 134-145.
37. Zdankiewicz-Ściagała E, Ściagała DK, Borowska A. The validation of the Polish version of the Curious Experiences Survey and its factor structure (in press).
38. Foa EB. Posttraumatic Diagnostic Scale (PDS) manual. Minneapolis, MN: NSC Pearson; 1995.
39. Dragan M, Lis-Turlejska M, Popiel A, Szumiał Sz, Dragan W. The validation of the Polish version of the Posttraumatic Diagnostic Scale and its factor structure. *European Journal of Psychotraumatology* 2012; 3: 1, 18479. DOI: 10.3402/ejpt.v3i0.18479.
40. Herman JL. Trauma and recovery. New York: Basic Books; 1992.
41. Hyer L, Woods G, Summers MN, Boudswyns P, Harrison WR. Alexithymia among Vietnam veterans with posttraumatic stress disorder. *Journal of Clinical Psychiatry* 1990; 51: 243-247.
42. Moormann PP, Albach F, Bermond B. Do Alexithymia, Dissociation, and CSA Explain the Controversial Topic of Memory Recovery? In: Kalfoglu EA (ed.). *Sexual Abuse – Breaking the Silence*. 2012; p. 57-70; <https://cdn.intechopen.com/pdfs-wm/33657.pdf>.
43. McLean LM, Toner B, Jackson J, Desrocher M, Stuckless N. The Relationship Between Childhood Sexual Abuse, Complex Post-Traumatic Stress Disorder and Alexithymia in Two Outpatient Samples: Examination of Women Treated in Community and Institutional Clinics. *Journal of Child Sexual Abuse* 2006; 15: 1-17.
44. Moormann PP, Bermond B, Albach F, van Dorp I. The etiology of alexithymia from the perspective of childhood sexual abuse. In: Vingerhoets A, van Bussel F, Boelhouwer J (eds.). *The (non-) expression of emotions in health and disease*. Tilburg: Tilburg University Press; 1997, p. 139-153.
45. Kessler BL, Bieschke KJ. A retrospective analysis of shame, dissociation, and adult victimization in survivors of childhood sexual abuse. *Journal of Counseling Psychology* 1999; 46: 335-341.