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Pain and tactile dissociation, derealization and depersonalization symptoms in women and recalled traumatic events in childhood, adolescence and early adulthood

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Summary

Introduction. The symptoms of dissociation, depersonalization and derealization are often associated with exposure of patients to mental and physical injuries, usually occurring in childhood. Most of these observations were carried out in populations of patients with various disorders (posttraumatic, conversion-dissociation, personality disorders – especially borderline), who reported their exposure to adverse life circumstances through questionnaire interviews.

Aim. Assessment of the risk associated with various traumatic events in childhood and adolescence concerning the symptoms of pain and tactile dissociation, depersonalization and derealization.

Material and method. The coexistence of the earlier life circumstances and the currently existing symptoms was examined on the basis of KO "0" Symptom Checklist and Life Inventory, completed prior to treatment in a day hospital for neurotic disorders.

Results. In the group of 2582 women, patients of a day hospital for neurotic and personality disorders, the symptoms of pain and tactile dissociation, depersonalization and derealization were present in 24-36 % of patients, while the maximum severity of these symptoms reported approximately 4-8 % of patients. The studied patients reported the exposure during childhood and adolescence (before 18yo) to numerous traumatic events of varying severity and frequency, including hostility of one parent (approximately 5% of respondents), the sexual initiation before 13yo (1%), worse than peers material conditions (23%), harassment of the family of origin (2%), reluctance of their peers (9%). Conducted regression analysis showed illustrated by the coefficients OR (odds ratios) a statistically significant relationship between the majority of the analyzed symptoms and many of the listed events, such as being regarded

as worse than siblings, mother's anger in the situation of the patient's disease in childhood, lack of support, indifference of parent, poverty and worseness of the family of origin, inferior position in the classroom and the school grades, total sexual unawareness, incest or its attempt.

Conclusions. The symptoms of dissociation, depersonalization and derealization occurred in significantly more patients reporting burdening life events – difficult situations in childhood and adolescence. Therefore, in clinical practice in patients presenting such symptoms, regardless of diagnosis (e. g. a specific neurotic disorder), we can expect revealing information about such events.

Keywords: traumatic events, dissociation, depersonalization, derealization, neurotic disorders, risk factors

Introduction

According to ICD-10 classification the depersonalization – derealization syndrome belongs to the category of "other" neurotic disorders. It consists in experiencing one's own mental activity, the body or the environment as unreal, strange, automated, which may be accompanied by emotional coldness, a feeling of strangeness and separation from one's own thoughts, the body or the real world. Patients are aware of the falsehood of these experiences and their awareness and opportunities of emotional expression remain intact [1]. In turn, the authors of DSM- IV-TR classification place depersonalization-derealization syndrome in the category of dissociative disorders, as a manifestation of structural dissociation of the personality, due to the same underlying mechanism (separation of the observing and experiencing part of the personality). On the separation of depersonalization from dissociative disorders indicates its stronger correlation with anxiety and depression than the dissociation [2, 3]. The literature lacks a one, binding definition of a dissociative disorder, and terms such as "dissociative disorders" or "dissociation" are used interchangeably. It is also difficult to define groups of symptoms of dissociative disorders − their descriptions found in ICD-10 and DSM-IV-TR classifications largely overlap, although the authors of ICD-10 include movement and feeling disorders to dissociations that the authors of the DSM-IV-TR attribute to conversion disorders, a subgroup of somatoform disorders [4]. The basic changes made with the introduction of DSM-5 consist on the division of the group of dissociative symptoms to the "positive" :experiencing fragmentation of identity, depersonalization and derealization, and "negative" − associated with lack of access to or control (memory, movement, etc.) [5−8].

The symptoms of depersonalization and derealization may appear in a variety of disorders, including being a component of neurotic disorders [9, 10]. Such episodes occur transiently in approximately 70% of healthy individuals (regardless of sex), while in the population suffering from various mental disorders they can be seen twice as often in women, often before 40 years of age [11]. Depersonalization is considered to be the third most common symptom in psychiatric patients, after the low mood and anxiety [12].

One of the concepts of dissociation is a BASK model of Bennett G. Braun, describing it as a disruption of at least one of the four levels of the continuum, which

are: behaviour, affect, sensation, and knowledge (their consistency indicates mental health). According to this author depersonalization and derealization relate to the level of sensation [13]. The second approach indicates the existence of separate types of dissociation, which is confirmed by studies of Putnam et al. [14] carried out in groups of psychiatric and neurological patients and healthy subjects.

In the etiology of depersonalization-derealization disorders many factors are commonly enumerated: neurological, endocrine and psychological. In the case of the latter the most highlighted are variety of disturbances of the normal course of childhood, such as violation of the borders of the patient and the related trauma, repressed and dissociated emotions, inconsistency of attitudes of caregivers, impaired sense of security, impaired self-esteem and focus on the future, the lack of protection from the caregivers and exposure to overwhelming events [9, 15−17]. Research on the phenomenon of depersonalization-derealization are few, and the authors of the existing literature focus mainly on combining these disorders with various traumas occurring during childhood, and on the effects of the occurrence of such symptoms, including the increased burden of health care institutions [18] similarly as in the case of dissociative disorders [19]. According to many researchers and clinicians trauma and dissociation are interrelated, because the first of these phenomenon is connected with the lack of consistency between the inner world and outer reality, which causes loss of mental balance in the form of dissociation [20, 21]. Observations of patients with dissociative [22] and posttraumatic disorders [23] and subjects with borderline personality disorder [24] indicate that the heavier was the experienced childhood trauma, the greater is the risk of dissociative disorders in adulthood. Along with somatization disorder and disturbances of emotional regulation dissociative disorders are probably a way to adapt to traumatic experiences. In addition, the emotional rejection by caregivers and especially minimizing by them difficult experiences of the child increases the probability of dissociative disorders in adulthood more than the sexual or emotional violence or physical neglect.

Especially women who have been victims of sexual abuse, may experience many difficulties in adequate approach to their own carnality especially in the dimensions of preoccupation with appearance and concern about weight [25]. This may partly explain the risk of developing in them a dissociative or depersonalization-derealisation disorders [26]. If the abuse took place in adolescence − one of the most critical for the development of body image − it interferes with a person's ability to achieve a stable image of himself and his own body. The abuse victims present the wrong way of perceiving the individual parts or the whole of their body (e.g. too thick, deformed, alien), they may be chronically dissatisfied with the appearance and ashamed of the different aspects of physicality. Sexual abuse also affects the relationship between the individual and the outside world. Its victims often have difficulties with expressing their needs and opinions (in conjunction with the feeling of guilt and invalidity), and suffer from the various sexual disorders [16, 27, 28], in part identical with dissociative disorders [29].

The representations of attachment relation, including the experience of emotional trauma that could shape it in the wrong way, affects different aspects of perceiving somebody's own corporeality. The stronger was the traumatic event, the more severe

are the disturbances in the experiencing of its victim's body and the victim has more negative attitude toward its corporeality. There is also an effect of cumulated trauma, which indicates that the greater the number of various traumatic events experienced before 18yo was, the more symptoms are present nowadays [30-34]. Events having the strongest traumatic influence are rape and physical violence, threatening with the weapon, attempts of rape and sexual contacts (not only of the nature of rape) in childhood [32]. Also, emotional rejection and early age of injury (but only in conjunction with the threat of physical body integrity by another person) increases the probability of dissociative disorders [35].

On a subgroup of dissociative disorders connected with the sensation of pain and touch and a depersonalization-derealization the greatest impact have: emotional abuse and neglect, sexual abuse and physical neglect. It is worth noting that there are also factors that are mediators of the relationship between sexual violence and the intensity of psychopathology. These include − in accordance with the concept of Finkelhor and Browne [36] − traumatic sexualization (learning of abnormal sexual behaviour as a result of sexual abuse in childhood), betrayal of the offender, a sense of powerlessness and stigmatization of victims [36] and feeling of guilt that are probably connected with the risk of transforming the tendency to dissociation in dissociative states [37].

Exposure to traumatic situation in childhood or adolescence may also lead to the occurrence of psychosomatic diseases, which are accompanied by episodes of depersonalization-derealization or other disorders in the field of dissociation. The mechanism explaining this type of disorder refers to the need to maintain, in a victim of abuse, the illusion of having a good protector. Thus, his/her body is somehow "sacrificed" because by denying his/her true feelings the person unconsciously begins to manifest them through the body. The final result of this process is the conversion of the mental pain in suffering of the body [38, 39]. Other, more contemporary approach sees the dissociative disorders as a psychobiological system of protection of the body (common to animals and humans), which is activated in the moment of the repeated threats of the body in interpersonal situation [35] and which is generally associated with coping with stress in people free from disorders [40].

Aim

This study is an attempt to assess the risk of occurrence of selected symptoms in the field of dissociation, depersonalization and derealization in female patients exposed to potentially traumatic events in childhood, adolescence and early adulthood.

Material and method

Coexistence burdening circumstances of life from childhood and adolescence and the currently existing symptoms reported by patients (tested before qualifying for psychotherapy) was assessed using data from symptom checklist KO"0" and Life Inventory routinely filled out prior to psychotherapy treatment in the day hospital for neuroses in years 1980−2002. Obtained data on patients with diagnoses of neurotic

disorders, behavioural and personality disorders (category F4, F5, F6 in ICD-10 classification). These diagnoses were assigned to patients (hospitalized before the introduction of ICD-10) on the basis of the analysis of equivalence of described syndromes and, in some cases, on the basis of archival medical histories, that allowed using less detailed diagnoses (e.g. code F42), or even their combined groups (such as F40 and F41). Qualification for treatment included, in each case, at least two psychiatric examinations, interview, psychological examination and a battery of questionnaires, which enabled excluding other disorders (such as affective disorders, schizophrenic psychoses, exogenous disorders or neurotic-like disorders and severe somatic diseases), which preclude psychotherapy treatment in day hospital [41]. Most of the respondents was diagnosed with one of the neurotic disorders or personality disorder and neurotic disorder occurring secondary (Table 1). [42].

Events and circumstances of life patients have described through detailed retrospective questionnaire Life Inventory, composed of 138 questions (with variants of answers to choose from), concerning, inter alia, description of the family, living conditions during childhood and adolescence (before 18yo), process of learning and peer relationships, sexual development, traumatic events, the period of maturity, including career, the current material conditions and current relationship [43]. The second tool – the symptom checklist KO"0", allows for gathering information on the presence and severity of 135 symptoms during the past 7 days. This is the original Polish tool created on the basis of criterial approach [44], using everyday language, enabling patients to report the most common symptoms [45], which is characterized by satisfactory psychometric properties [46, 47].

Among the variables included in the symptom checklist KO"0" 4 symptoms were selected: feeling that objects are unreal(v. 8), transient pain/tactile loss (v. 23), feeling that world is unreal (v. 48), feeling that own body is unreal, strange (v. 68). From Life Inventory 4 groups of biographical circumstances (subjectively remembered) occurring during childhood, adolescence and early adulthood were chosen: 1) the relationship with parents, including loss and separations, and the indifference or hostility and lack of support from a parent or sense of worseness to the sibling, 2) the difficulties of the family of origin, including poverty, a sense of worseness and persecution, 3) disruption in relationships with peers and functioning at school, including the sense of less efficiency, lesser attractiveness, difficulties in learning, 4) traumatic events and adverse circumstances relating to sexuality, its development and sexual education, the way of crossing developmental "milestones".

Data obtained from routine diagnostic tests were used with the consent of the patients, all of the data were stored and elaborated anonymously.

Logistic regression was performed to estimate the odds ratios (OR) for the coexistence of the two nominal variables (the circumstances of life and symptom, coded as 0-1). Licensed statistical package STATISTICA PL was used.

Characteristics of the studied group

Table 1. **Global severity of symptoms and the type of disorders (according to ICD-10) found in a group of 2,582 women**

Global Symptom Level	Mean ± SD, Median	394 ± 152 (387)
Diagnosis (Primary)	F44/45 Dissociative or somatization dis.	29%
	F60 Personality dis.	23%
	F40/F41 Anxiety dis.	17%
	F48 Neurasthenia	7%
	F34 Dystymia	7%
	F50 Eating dis.	5%
	F42 Obsessive-compulsive dis.	2%
	F43 Reaction to stress, adjustment dis.	1%
	Other or no data	9%

Table 2. **Socio-demographic characteristics of the studied group**

Age (years)	Mean ± SD, Median	33 ± 9 (33)
Education	None/Primary	9%
	Secondary (including students)	57%
	Higher	34%
Employment	Working	59%
	Non working	41%
	pensioner	10%
	Students	23%

Results

In the group of 2,582 women treated in day hospital (mean age 33 years), there was a significant (reaching more than 24%–36% of patients) prevalence of dissociative symptoms affecting the feeling of pain or touch and depersonalization-derealization experiences. Additionally, among few percent of patients these symptoms had maximum intensity (Table 3). Complaints were accompanied by patient reporting various traumatic events (e.g. cases of incest or its attempts, a sense of lack of sexual awareness).

Table 3. **The incidence and severity of symptoms analyzed in the studied group**

	incidence	maximum severity
Feeling that objects are unreal	26%	4%
Transient pain/tactile loss	27%	6%

table continued on the next page

Feeling that world is unreal	36%	8%
Feeling that own body is unreal, strange	24%	5%

The most common symptom analyzed (Table 3) in the group of women, both in terms of incidence and the maximum severity was the feeling that the world is unreal. In turn, the least likely − in terms of occurrence − depersonalization (feeling of unreality of the body) and in terms of maximum severity − a sense of unreality of items.

Table 4. **Connection between the disruptions of relationship with parents (their memories of childhood and adolescence) and symptoms**

	Percentage in the studied group	Analysed symptoms			
		8. Feeling that objects are unreal	23. Transient pain/tactile loss	48. Feeling that world is unreal	68. Feeling that own body is unreal, strange
Separation from mother before 5yo	5%	1.15 (0.76–1.74)	0.65 (0.41–1.04)	1.30 (0.89–1.90)	0.86 (0.54–1.35)
Separation from mother between 6 and 10yo	4%	1.02 (0.68–1.52)	0.79 (0.47–1.31)	1.57* (1.02–2.41)	0.99 (0.60–1.61)
Separation from father before 5yo	9%	0.81 (0.58–1.12)	0.71 (0.51–1.00)	1.13 (0.85–1.50)	0.92 (0.66–1.28)
Separation from father between 6 and 10yo	7%	0.92 (0.63–1.34)	0.99 (0.61–1.61)	1.23 (0.88–1.70)	1.48* (1.04–2.09)
Death of mother before 5yo	1%	0.78 (0.29–2.12)	1.16 (0.48–2.84)	0.76 (0.31–1.85)	0.14 (0.04–1.04)
Death of mother between 6 and 10yo	1%	0.65 (0.19–2.29)	2.08 (0.77–5.60)	1.04 (0.38–1.84)	1.04 (0.34–3.16)
Death of father before 5yo	3%	1.02 (0.58–1.80)	1.31 (0.77–2.22)	0.97 (0.58–1.62)	0.57 (0.29–1.12)
Death of father between 6 and 10yo	2%	0.97 (0.51–1.86)	1.25 (0.67–2.32)	1.29 (0.72–2.31)	1.62 (0.88–2.98)
Indifference of mother	10%	1.56** (1.18–2.04)	1.24 (0.94–1.63)	1.51** (1.17–1.96)	1.39* (1.05–1.84)
Hostility of mother	5%	1.34 (0.92–1.96)	1.16 (0.80–1.71)	1.62* (1.14–2.31)	1.59 (1.10–2.32)
Indifference of father	15%	1.27* (1.01–1.61)	1.13 (0.89–1.43)	1.32* (1.06–1.65)	1.22 (0.95–1.56)
Hostility of father	6%	1.65* (1.16–2.33)	0.96 (0.66–1.39)	1.53* (1.09–2.14)	1.71** (1.20–2.43)
Lack of support from mother during troubles	17%	1.48* (1.19–1.85)	1.07 (0.85–1.34)	1.30* (1.05–1.60)	1.09 (0.86–1.38)

table continued on the next page

Attack of mother during troubles	25%	1.15 (0.94–1.41)	1.14 (0.94–1.39)	1.49*** (1.49–1.78)	1.52*** (1.24–1.85)
Lack of support from father during troubles	32%	0.98 (0.82–1.17)	0.98 (0.78–1.22)	1.15 (0.97–1.36)	0.85 (0.70–1.04)
Attack of father during troubles	18%	1.39* (1.12–1.73)	1.12 (0.90–1.40)	1.17 (0.95–1.44)	1.49*** (1.19–1.85)
Indecision of mother when she demanded sth.	8%	2.07*** (1.53–2.80)	0.97 (0.71–1.33)	1.39* (1.03–1.86)	1.67** (1.22– 2.28)
Indecision of father when he demanded sth.	8%	1.35 (1.00– 1.83)	1.49* (1.10–2.00)	1.16 (0.87–1.55)	1.53* (1.13–2.08)
Considered to be worse than siblings	18%	1.53*** (1.24–1.91)	1.58*** (1.27–1.95)	1.64*** (1.34–2.01)	1.45** (1.16–1.81)
Mother acted the same during illness	22%	1.27* (1.03–1.56)	1.14 (0.93–1.40)	1.00 (0.94–1.06)	0.94 (0.75– 1.17)
Mother was upset during illness	6%	1.47* (1.04–2.07)	1.69** (1.21–2.37)	1.50* (1.08–2.08)	1.89*** (1.34–2.65)
Father acted the same during illness	44%	1.01 (0.81–1.24)	0.98 (0.82–1.16)	—— ——	1.01 (0.87–1.17)
Father was upset during illness	6%	2.23*** (1.58–3.16)	1.32 (0.92–1.90)	1.74** (1.23–2.44)	0.84 (0.70–1.01)

The table shows the odds ratios (OR coefficients) calculated for 95% confidence intervals, statistical significance indicated: * $p < 0.05$, ** $p < 0.005$, *** $p < 0.0005$

The memory of being regarded as worse than siblings was associated with a significantly higher coexistence of all four analyzed symptoms, similarly anxiety or anger of the mother in the case of illness of patients (Table 4). Aggravating circumstances, such as experiencing hostility, indifference, lack of support in case of problems in childhood from one of the parents, were mostly associated with the coexistence of all three analyzed symptoms of depersonalization or derealization. Notable exception seems to be the lack of such a relationship for the indifference and lack of support from the father. Significant association between symptoms and parents' indecision in the context of placing demands on their daughters ("request something") was also found. Periodic loss of sensation of pain or touch was a symptom associated with the least amount of aggravating circumstances concerning the relationship with parents.

There was no statistically significant relationship between early separation from a parent or his/her death and the occurrence of studied symptoms, with the exception of separation in the 610yo, which was significantly connected with different symptoms − separation from the mother with a feeling that the world is unreal (derealization) while the separation from the father with a feeling of unreality of the body.

Table 5. **Connection between memories of difficulties of the family of origin, its harassment or stigmatization in childhood and adolescence in patients and symptoms**

	Percentage in the studied group	Analysed symptoms			
		8. Feeling that objects are unreal	23. Transient pain/ tactile loss	48. Feeling that world is unreal	68. Feeling that own body is unreal, strange
Family of origin was perceived as worse	7%	1.32 (0.95–1.83)	1.49* (1.08–2.04)	1.65** (1.22–2.23)	1.38 (0.99–1.92)
Family of origin was persecuted	2%	1.66 (0.92–2.99)	1.86* (1.04–3.31)	1.31 (0.74–2.31)	1.38 (0.75–2.55)
Worse material conditions	23%	1.64*** (1.35–2.00)	1.75*** (1.44–2.13)	1.40*** (1.16–1.69)	1.22 (0.99–1.51)
Mother's education lower than primary	8%	1.31 (0.97–1.78)	1.69*** (1.26–2.26)	1.28 (0.96–1.70)	1.13 (0.82–1.55)
Mother's education primary	27%	1.07 (0.88–1.30)	1.37** (1.13–1.65)	0.99 (0.72–1.37)	0.81 (0.66–1.00)
Father's education lower than primary	4%	1.06 (0.70–1.63)	1.55* (1.04–2.31)	0.84 (0.56–1.26)	0.96 (0.61–1.51)
Father's education primary	19%	1.06 (0.85–1.33)	1.55*** (1.26–1.92)	1.09 (0.89–1.34)	0.81 (0.64–1.03)
Using alcohol by father: very often, at least once a week	16%	1.31* (1.04–1.66)	0.91 (0.72–1.16)	1.19 (0.96–1.47)	1.41** (1.12–178)

The table shows the odds ratios (OR coefficients) calculated for 95% confidence intervals, statistical significance indicated: * $p < 0.05$, ** $p < 0.005$, *** $p < 0.0005$

Low position or difficult family situation (Table 5) connected with its "worseness", persecution by the environment, extremely low parental education and poverty were associated with significantly higher prevalence of symptoms of dissociation of feeling pain or touch. The occurrence of sense of alienation of the body (depersonalization) was associated only with very frequent use of alcohol by the father of the patient. Relatively few of the analysed events were significantly more coincided with symptoms of derealization – of objects and the world.

Table 6. **Connection between memories of difficulties in relationships with peers and education from childhood and adolescence and symptoms**

	Percentage in the studied group	Analysed symptoms			
		8. Feeling that objects are unreal	23. Transient pain/tactile loss	48. Feeling that world is unreal	68. Feeling that own body is unreal, strange
Repeating class once	12%	1.08 (0.83–1.42)	1.11 (0.85–1.44)	1.16 (0.91–1.49)	1.03 (0.79–1.34)

Repeating class twice	1%	1.49 (0.73–3.00)	1.58 (0.79–3.16)	5.12*** (2.39–10.97)	2.09* (1.06–4.14)
Repeating class more than twice	0,4%	2,84 (0,82-9,86)	0,29 (0,04-2,33)	4,06* (1,05-15,77)	3.12 (0.90–10.82)
Often conflicts with teachers	6%	1.68** (1.21–2.33)	1.03 (0.72–1.47)	1.23 (0.89–1.70)	1,51* (1.08-2.13)
Very often conflicts with teachers	2%	1.63 (0.88–3.04)	---	2.11* (1.16–3.84)	1.31 (0.68–2.52)
Least physically fit in class	18%	1.06 (0.85–1.33)	1.03 (0.83–1.28)	---	1.09 (0.87–1.38)
Least beauty in class	15%	1.23 (0.97–1.57)	0.85 (0.66–1.09)	1.51* (1.21–1.88)	1.16 (0.90–1.48)
Least studious in class	9%	1.56* (1.17–2.07)	1.19 (0.89–1.60)	1.53** (1.17–2.01)	1.42* (1.06–1.90)
Average studying possibilities	44%	1.29** (1.08–1.54)	1.34* (1.13–1.60)	1.04 (0.88–1.22)	1.06 (0.88–1.27)
Weak studying possibilities	7%	1.30 (0.95–1.79)	1.01 (0.73–1.40)	1.68** (1.25–2.25)	1.33 (0.96–1.84)
Others ruled patient at school	15%	1.38* (1.09–1.74)	1.04 (0.82–1.32)	1.77*** (1.43–2.21)	1.33* (1.05–1.69)
Others were indifferent toward patient at school	23%	1.09 (0.88–1.34)	0.97 (0.78–1.20)	1.23* (1.02–1.49)	0.91 (0.73–1.13)
Others does not liked patient at school	9%	1.44* (1.08–1.92)	0.84 (0.62–1.15)	1.84*** (1.40–2.40)	1.85*** (1.39–2.46)
Parents or other people decided about choice of school	16%	1.44** (1.15–1.82)	1.66*** (1.32–2.08)	1.26* (1.01–1.56)	1.27 (1.00–1.61)

The table shows the odds ratios (OR coefficients) calculated for 95% confidence intervals, statistical significance indicated: * $p < 0.05$, ** $p < 0.005$, *** $p < 0.0005$

Repeating a class, but only two and more times was associated with a significantly higher probability (odds ratio > 2 and higher) of reporting symptoms of derealization (of the world), and depersonalization (relating to the body) (Table 6). Similar, but weaker connections were observed for conflicts with teachers. Difficulties of school period were usually associated with the symptom of derealization of the world.

Table 7. **Connection between memories of traumatic events and circumstances of life in the field of sexuality from childhood and adolescence in patients with symptoms**

	Percentage in the studied group	Analysed symptoms			
		8. Feeling that objects are unreal	23. Transient pain/tactile loss	48. Feeling that world is unreal	68. Feeling that own body is unreal, strange
Rather not informed about sex before 18yo	26%	1.34** (1.10–1.63)	0.96 (0.88–1.30)	1.20 (1.00–1.43)	1.14 (0.93–1.40)
Not informed about sex before 18yo at all	21%	1.27* (1.03–1.56)	1.32* (1.07–1.62)	1.25* (1.03–1.52)	1.03 (0.82–1.28)
No practice of masturbation or sexual plays	69%	0.90 (0.74–1.08)	1.19 (0.99–1.44)	0.82 (0.69 –0.98)	0.74** (0.61–0.89)
Punished for masturbation or sexual plays	5%	1.29 (0.88–1.89)	1.26 (0.86–1.83)	1.29 (0.91–1.85)	1.43 (0.98–2.09)
No interest in opposite sex	1%	0.90 (0.38–2.12)	2.18* (1.04–4.56)	1.87 (0.90–3.89)	2.21* (1.05–4.67)
Initiation before 13yo	1%	0.64 (0.24–1.70)	1.12 (0.49–2.57)	0.73 (0.32–1.67)	1.56 (0.70–3.49)
Initiation when 14-16yo	6%	0.99 (0.66–1.48)	1.31 (0.92–1.87)	1.49* (1.06–2.08)	1.35 (0.94–1.95)
Rather unwanted initiation	17%	1.42** (1.13–1.77)	1.25 (1.00–1.56)	1.31* (1.07–1.62)	1.18 (0.94–1.49)
Initiation was a rape	4%	1.20 (0.79–1.83)	1.60* (1.07–2.38)	1.46 (0.99–2.16)	0.98 (0.66–1.46)
Incest or attempted incest (sister, brother, father)	4%	1.53* (1.01–2.29)	1.14 (0.75–1.74)	1.81** (1.23–2.67)	1.68* (1.12–2.53)

The table shows the odds ratios (OR coefficients) calculated for 95% confidence intervals, statistical significance indicated: * $p < 0.05$, ** $p < 0.005$

The deficits of sexual education (subjectively assessed by the patient), especially significant "not conscious before 18yo at all", were associated with a significant risk of dissociative and derealization symptoms but not depersonalization (of the body) (Table 7). Declaration of patient about not being interested in the opposite sex was significantly and strongly (OR > 2) associated with the probability of occurrence of both symptoms associated with the body: dissociation of sensation of pain or touch and a sense of alienation of the body. There was no association between any of the symptoms and having sexual intercourse before 13yo, while the pathogenic effect has been shown for forcing the first intercourse and incest or its attempts.

Discussion

Dissociative disorders are a problem not only for psychiatrists and neurologists, but also for the other branches of medicine such as gynecology/obstetrics [48]. They cause difficulty in making a diagnosis and interferences in the doctor-patient collaboration. On the other hand, despite they are widespread, it is always necessary to carry out a careful differentiation between them and similarly extending somatic and particularly neurological states [49]. On the effects of these disorders or individual symptoms of depersonalization and derealization on the treatment the literature is actually silent.

The results of this study revealed a statistically significant relationship between discussed symptoms and following traumatic events: separation from a parent during the period of 6-10yo, a difficult family situation (low position, inferiority, poverty, persecution), school problems (multiple class repeating, conflicts with the teacher), extreme deficits of sexual education and forcing (or attempt to) sexual intercourse or incest. This supports the hypothesis on the impact of traumatic circumstances of life on the functioning of patients with neurotic disorders (see also [15, 16, 28]).

Considering the individual connections we can consider why these and not other events are associated with symptoms of depersonalization, derealization and dissociation of feeling pain and touch. Separation from a parent taking place in the age of 6–10yo (just after the oedipal period) can be perceived by the child as a punishment for oedipal fantasies. In turn, if the oedipal issues was not properly terminated the guilt can be associated with culturally non accepted victory that makes difficult to identify with the parent of the same sex which is necessary for proper formation of identity. Separation from the mother (or her caring inefficiency) is associated with a sense of unreality of the world, because at this age she was, for the baby, the safe base, through which he/she was able to explore the environment. Without her care and help, the world seems very threatening, and to defend against it the child can escape into fantasy, owing to which that what is happening around is not perceived as real. An interesting relationship seems to be between separation from a father and a sense of alienation of the body. In this age, when the child is gradually moving from the custody of the mother to father's, physical contact with its father is very important − in the relationship with the mother a small child is a kind of "extension" of her body and owing to father he/she may experience existing borders.

Links between difficult family situations and symptoms of dissociation of feeling pain and touch can be seen as an attempt to defend against traumatic circumstances of life. Experiencing poverty, worseness and persecution could activate a defence mechanism consists in cutting off any unpleasant sensations. It might also be that people growing up in difficult conditions are characterized by a higher threshold of excitability, because of which they do not feel weak stimuli associated with pain or touch.

Basing on clinical experience, it appears that the symptom of depersonalization in women whose fathers abused alcohol may be presented due to the fear of impulsivity-particularly sexual but also aggressive because of which patients dissociate themselves

from their own body to avoid confrontation with their own sphere of instincts "similar to the father's." On the other hand, it may also be due to the identification with passive and submissive mother.

Learning difficulties were associated with a greater likelihood of symptoms of derealization and depersonalization, although it is not possible to determine whether we are dealing with the causes or effects, or the one and the other. Perhaps women experiencing difficulties at school are also having problems with socialization, and so with the general understanding of the sociality rules. Therefore the world around them is experienced as strange. As a result of the inability to participate in relationships they experience many painful setbacks, which increases the risk of both types of "post-traumatic" symptoms.

There is an interesting relationship between deficits of sexual education and symptoms of dissociation and derealization. Since these patients subjectively assessed their preparation for sexual relations it could be that this type of symptoms meant that they were "deaf" to such information coming from the environment (similarly to the information in the process of a classical education).

According to the extensive literature (more e.g. [15]) significantly higher severity of symptoms in women who were victims of rape or incest (or their attempt) was found. In this case, dissociation, depersonalization and derealization may be a reaction to the trauma and may be the attempt to defend oneself by cutting off the world and one's own corporeality. Interesting is the fact that beginning of intercourse before 13yo is not associated with these symptoms, or at least it is not shown in this study. However, these results are based on a small group, especially when considering patients starting intercourse before 13yo. It may reflect the fact that the context in which the early intercourse took place is important and that even such an early start of sexual life, if only it was wanted and accepted, does not have a negative influence on further functioning (at least on the analyzed symptoms).

This study has, of course, several limitations: a group of patients who were qualified for intensive psychotherapy in a day hospital is not representative even for the population suffering from neurotic, behavioural and personality disorders (referral to other institutions gets people having no time due to their professional or family activity, with extreme severity of disorders or suffering for serious somatic disorder). The multi-annual and retrospective nature of the analysis results with the inevitable limitations in generalising conclusions on the currently treated population because of the cultural changes that have taken place (such as the greater availability and popularity of psychotherapy treatment, elimination of referrals to psychiatrists, etc.). Analyses based on the OR coefficients do not allow unequivocally conclude about the direction of cause and effect relationship and relying study on self-report data, patients' self-knowledge, beliefs, subjective memories etc. makes the research less reliable. Therefore, despite all these limitations, achieving the results that are consistent with clinical knowledge seems to the authors to justify their conducting, also as a starting point for further analysis – multivariate, prospective and using other questionnaires.

Conclusions

1. Presence, in childhood, adolescence and young adulthood, of adverse traumatic life circumstances of the type of psychological abuse, neglect, insufficient support from parents, deficits of sexual education, trials or episodes of incest etc. was associated with a significantly higher prevalence of dissociation of pain or touch, depersonalization and derealization. These connections are not only confined to the most serious traumas or to the area of sexuality.
2. Identifying specific groups of adverse life events or traumatic circumstances (risk factors) can increase mindfulness to patients mentioning it in an interview and help to build hypotheses concerning pathogenesis of disorders.
3. The results obtained in the group of women, patients with various neurotic, personality and behavioural disorders allow only for assuming that the described risk factors may also exist in other clinical populations and among men.
4. In everyday clinical practice in patients reporting symptoms of conversion/dissociation and depersonalization/derealization, regardless of the foreground diagnosis (e.g. specific neurotic disorder), we can expected disclosure of information concerning the presence of traumatic events in their lifetime.

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