ORIGINAL ARTICLES

UDC: 616.89-008.441.44:616.89-008.45
https://doi.org/10.2298/VSP161201023T

Relationship of depersonalization and suicidality in depressed patients

Povezanost depersonalizacije i suicidalnosti depresivnih bolesnika

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Abstract

Background/Aim. Depersonalization is considered to be the third leading symptom in psychiatric morbidity. The aim of this study was to investigate the correlation of depersonalization and different patterns of suicidal behaviour in patients suffering from depresssive disorder. **Methods.** The study included 119 depressed patients divided into two groups: the first group consisted of depressed patients with clinically manifested depersonalization according to the Cambridge Depresonalisation Scale presented score ≥ 70, and the second group consisted of the patients whithout clinically manifested depersonalization symptomatology, or, it was on the subsyndromal level. Subsequently, these two groups were compared regarding the suicidality indicators. **Results.** According to the Scale for Suicide Ideation of Beck, the depressed patients with depersonalization had statistically significantly higher scores regarding suicidal ideation, both active and passive, more often manifested suicidal desire, suicidal planning and overall suicidality ($p < 0.000$). Positive ideation, as a protective factor, was reduced in this group ($p < 0.000$). These patients had more previous suicide attempts ($p < 0.001$) and family history of suicides ($p = 0.004$). The depressed patients with depersonalization had 8 times more often active suicidal desire, 11 times more often passive suicidal desire and 5 times more often suicidal planning compared to patients without depersonalization. **Conclusion.** Suicidal potential, manifested in various patterns of suicidal behaviour among the patients suffering from depressive disorder with clinically manifested depersonalization is prominent. It is necessary to pay particular attention to depersonalization level during diagnostic and treatment procedure of the depressed patients having in mind that it may be associated with high suicidal potential.

Key words:
depression; depersonalization; suicide; risk factors; mental disorders; behaviour; suicide, attempted.

Apstrakt

Uvod/Cilj. Depersonalizacija, uz anksioznost i depresiju spada među tri najvažnija psihijatrijska simptoma. Cilj istraživanja bio je da se utvrdi povezanost depersonalizacije i različitih oblika suicidalnog ponašanja kod depresivnih bolesnika. **Metode.** Istraživanjem je obuhvaćeno 119 depresivnih bolesnika (21% muškog, 79% ženskog pola). U istraživanju su korišćeni: *Cambridge Depersonalization Scale* (CDS), *Scale for Suicide Ideation of Beck* (SSI) i *Positive and Negative Suicidal Ideation* (PANSI). Na osnovu skora na CDS skali bolesnici su podeljeni na grupu bolesnika sa depersonalizacijom (skor ≥ 70) i na grupu bolesnika bez depersonalizacije (< 70). Ove dve grupe su komparirane u odnosu na indikatore suicidalnosti. **Rezultati.** Oboleli od depresije sa depersonalizacijom imali su statistički značajno veći skor za suicidalne ideje po Bekovoj skali za suicidalne ideje, češće su manifestovali, kako aktivne, tako i pasivne suicidalne želje, suicidalne planove i globalnu suicidalnost ($p < 0.000$). Pozitivne ideje, kao protektivni faktor, bile su redukovane u ovoj grupi ispitanika (prva grupa) ($p < 0.000$). Ovi bolesnici imali su više ranijih pokušaja suicida ($p < 0.001$), kao i suicide u porodičnoj istoriji ($p = 0.004$). Depresivni bolesnici sa depersonalizacijom imali su osam puta češće aktivne suicidalne želje, jedanaest puta češće pasivne suicidalne želje i pet puta češće suicidalne planove u odnosu na bolesnika bez depersonalizacije. **Zaključak.** Suicidalni potencijal, manifestovan kroz različite obrazce suicidalnog ponašanja obolelih od depresivnog poremećaja sa visokom depersonalizacijom, je izražen. Neophodno je obratiti posebnu pažnju na nivoe izraženosti depersonalizacije tokom dijagnostičkih i terapijskih procedura depresivnih bolesnika, imajući u vidu da postojanje depersonalizacije može biti povezano sa visokim suicidalnim potencijalom.

Ključne reči:
depresija; depersonalizacija; samoubistvo; faktori rizika; psihički poremećaji; ponašanje; samoubistvo, pokušaj.

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Introduction

There is a number of identified risk factors that can provide clinicians with a suicide risk profile. Thus, health professionals who are familiar with these risk factors can indentify potential at risk patients for further assessment of suicidality and preventive measures [1].

Some studies showed that some psychiatric disorders and conditions are related to a high suicide risk, especially mood disorders, psychotic disorders, anxiety disorders, some personality disorders as well as substance abuse and dependence (particularly alcohol) [1–4]. Major depression is outlined as a particularly significant suicide risk factor because even 50% of those who attempted a suicide were suffering from this disorder. In addition to the diagnosis itself, the presence of specific symptoms occuring within the depressive syndrome may be associated with an increased suicide risk.

On the other hand, in terms of frequency depersonalization is a symptom considered to be at the third place on the scale in psychiatric morbidity (just after anxiety and depression) [5]. However, it is often not recognized. According to data from literature, there is relatively a high prevalence of depersonalization symptomatology in depressive disorder [6–8]. The depersonalization symptomatology within depressive disorder was found in 4% of patients in primarly care [9], 28% of outpatients [10] and even 60% of inpatients [11].

Due to very unpleasant experience, such as feeling that their own body, mental processes and environment are strange and changed or numbness of perceptive experience, patients with depersonalization are occassionally apt to self-injuring which shortly interrupts the horror of changed experience [12]. Also, the depersonalization is associated with an increase of suicidal ideation as well as suicidality in general. In the community-based survey with 5,000 participants, the authors found out that depersonalization and the Type-D personality are uniquely associated with suicidal ideation [13]. In a non-clinical sample of 7,905 participating surgeons, the presence of suicidal ideation was related with all 3 domains of burnout (emotional exhaustion, depersonalization and low personal accomplishment) and symptoms of depression [14].

One of the suicidality risk factors was previous suicide attempt. Some authors describe it as the most important risk factor [15].

Having in mind the aforementioned as well as the fact that depersonalization very often goes along, i.e., represents the associated symptom in depressive disorder, the aim of this study was to investigate the correlation of depersonalization and diferent patterns of suicidal behaviour in subjects suffering from depressive disorder.

Methods

The study included 119 patients, of both genders [25 (21%) males, 94 (79%) females] The inclusion criteria for our cross-section study were: diagnosis of depressive episode or recurrent depressive episode (F32.0-2, F33.0-2) according to ICD X, age 18–65, primary education minimum, the absence of cognitive impairment or organic couse of depression (F06.3), mental retardation, substance abuse disorders, a history of seizures, absence of serious medical (somatic) illnesses that were not considered well-controlled. Patients with psychotic feature, or hystory of (hypo)manic episodes, according to ICD X, were excluded from our investigation. All study patients were consecutively admitted to hospital treatment at the Psychiatry Clinic, Gornja Toponica, or treated as outpatients at the Clinic for Mental Health Protection, Niš. All patients who passed inclusion criteria were tested cross sectionally during treatment at mentioned psychiatric institutions. All psychological assessments were focused on the areas of depression, depersonalization and suicidality. Standard psychometric instruments were: the Cambridge Depersonalization Scale (CDS) [15] for measuring an intensity of depersonalization symptomatology (scores exceeding or equal 70 represent the indicators of clinically manifested depersonalization). This scale consists of 29 items, the Scale for Suicide Ideation of Beck (SSI) – suicidality assessment scale [16], comprised 19 items. We can obtain three subscales: active suicidal desire, passive suicidal desire and specific suicidal plan as well as a total score of suicidality, (higher scores indicate greater level of suicidality); Positive and Negative Suicidal Ideation (PANSI) [17] is the 14-item scale for assessing suicidal thoughts (data processing provides evidence about positive and negative suicidal thinking).

All examined patients also responded to the questionnaire items, devised by the authors .The questionnaire items focused on their sociodemographic characteristics as well as previous suicide attempts and family history of suicide.

All 119 depressed patients were divided into two groups: the first group consisted of depressed patients with clinically manifested depersonalization (according to CSD [15] presented score ≥ 70), and the second group of patients was without clinically manifested depersonalization symptomatology, or it was on the subsyndromal level. Based on these criteria, the group with depersonalization consisted of 50 patients and the group without depersonalization consisted of 69 patients. Subsequently, these two groups were compared on the basis of indicators of suicidality.

The study was approved by the Regional Ethical Committee, all patients gave written consent and the study was performed in full accordance with the Declaration of Helsinki (1965) and later revisions.

Within and between the groups comparison were performed using The Statistical Package for the Social Sciences, Version 17 (SPSS 17). Preliminary analysis was performed to ensure there was no violation of the assumptions of linearity and normality. In order to determine whether the data were normally distributed, we used the Kolmogorov-Smirnov test (KS-test). Data were expressed as mean ± standard deviation (SD), except for non-Gaussian parameters, which were presented as median (range). We used Student's *t*-test for parametric data. For nonparametric data, we used χ^2 test, Spearman's rho, Mann-Whitney *U*, Phi and odds ratio with confidence intervals. All reported *p*-values are exact two-sided significance levels. Statistical significance was defined at $p < 0.05$.

Results

Patients

Both groups did not significantly differ concerning gender, place of residence, age and level of education (Table 1). In both groups, the majority of patients were females and most of participants lived in urban environment (in town). The average age of patients in the group with clinically manifested depersonalization was 42.11 ± 11.82 years and in the group without clinically manifested depersonalization was 44.93 ± 11.20 years (t = 1.188, df = 117, p = 0.237). Most of the patients had a standing partner. The patients with the intermediate level of education dominated in both groups.

Suicidal ideation

Positive ideation, i.e., positive attitudes to life opposite to suicide was more intensive in the group of patients without depersonalization (mean rank 72.29). There was a statistically significant difference compared to the group with depersonalization where the mean rank was 43.04 (Mann-Whitney U = 877.0, p < 0.0001). Depersonalization score was in negative correlation with positive suicidal ideation and correlation was statistically significant (Spearman's rho = -0.452, p < 0.0001).

Suicidal desire

Suicidal desires distribution in examined patients in both groups is shown in Table 2.

Suicidal desire, both active and passive, was more often present among the depressed patients with depersonalization (the first group) (Table 2).

There was a highly significant association between the level of depersonalization and suicidal desire (active and passive).

Sucidal planning

Suicidal planing was more often reported by the patients from the first group (Table 2). The correlation between the level of depersonalization and suicidal planing was positive and statistically significant (Table 3).

Overall suicidality

Similar to previous results and in accordance with it, the presence of suicidality in general was more often reported within the group with depersonalization (Table 2). There was a significant association between depersonalization and suicidality (odds ratio 6.6) (Table 2). Correlation between level of depersonalization and general suicidality scores was positive and statistically significant (Table 3).

Table 1

Sociodemographic data of patients included in the study

Characteristics	Patients with depersonalization n (%)	Patients without depersonalization n (%)	χ^2	Df	p
Gender			1.303	1	0.265
female	42 (84)	52 (75.4)			
male	8 (16)	17 (24.6)			
Place of residence			0.531	1	0.767
town	26 (52)	40 (58)			
village	19 (38)	24 (34.8%)			
big village	5 (10)	5 (7.2)			
Partnership			2.628	1	0.165
with partner	35 (70)	57 (82.6)			
single	15 (30)	12 (17.4)			
Education			2.836	1	0.425
low (8 years)	6 (12)	13 (18.8)			
medium (12 years)	36 (72)	46 (66.7)			
higher (15 years)	4 (8)	2 (2.9)			
high (16–18 years)	4 (8)	8 (11.6)			
Previous suicide attempt			12.950	1	< 0.001
yes	25 (50)	13 (18.8)			
no	25 (50)	56 (81.2)			
Family history of suicide			8.881	1	0.004
yes	16 (32)	7 (10.1)			
no	34 (68)	62 (89.9)			

Table 2

Suicidal behavior and depersonalization

Suicidality (sub) scale	Patients with depersonalization n (%)	Patients without depersonalization n (%)	χ^2	df	*p*	Odds ratio	95% confidence interval
Active suicidal desire			24.585	1	< 0.001	8.0	3.350–19.188
yes	41 (82)	25 (36.2)					
no	9 (18)	44 (63.8)					
Passive suicidal desire			37.728	1	< 0.001	11.3	4.716–27.258
yes	40 (80)	18 (26.1)					
no	10 (20)	51 (73.9)					
Specific suicidal plan			16.189	1	< 0.001	5.0	2.224–11.239
yes	28 (56)	14 (20.3)					
no	22 (44)	55 (79.7)					
General suicidality			20.416	1	< 0.001	6.7	2.804–15.872
yes	41 (82)	28 (40.6)					
no	9 (18)	41 (59.3)					

Table 3

Association of suicidal behavior and depersonalization among patients with depersonalization

Variable	Phi	*p*
Active suicidal desire	0.455	< 0.001
Passive suicidal desire	0.532	< 0.001
Specific suicidal plan	0.369	< 0.001
General suicidality	0.414	< 0.01
Previous suicidal attempts	0.330	< 0.001
Family history of suicide	0.273	0.004

Previous suicide attempt

In our study, higher percentage of subjects who previously attempted suicide was in the group with depersonalization (even 50%), while in the group of patients without depersonalization disorder, it was almost two-thirds less (18.8%). After the statistical processing, we obtained statistically significant difference between the groups (Table 1).

Family history of suicide

Regarding the family history, there was a statistically significant difference between the groups (Table 1).

Discussion

Suicidal ideation refers to thoughts, fantasies, ruminations and preoccupations with death, self-harm and self-inflicted death [18]. Suicidal ideation is presented by two variables: positive and negative ideation. Our study showed that the depressed patients with high depersonalization (≥ 70, according to CDS), had significantly reduced positive thinking about life, therefore reduced positive ideation as an important suicide protective factor. At the same time, negative ideation significantly increased, reflecting a lack of motivation for life and giving advantage to suicide as a possible way of resolving the actual situation. Our results are in accordance with Yoshimasu et al. [19], in part that refers to male subjects. Based on Spearman's rho coefficients, increasing of depersonalization in depressive disorder, resulted in the reduction of intensity of positive ideation and increasing of negative ideation. Suicide ideas could be active, when a person clearly wishes to commit suicide, or passive, when a person does not try to protect himself/herself in situations potentially dangerous for their life. This pattern of suicide behaviour was significantly more expressed in the depressed patients with clinically relevant depersonalization, 80% vs. 20% (among the patients without depersonalization). The depressed patients with depersonalization compared with those without this disorder presented eight times more often active suicidal desire and 11 more often had passive suicidal desire (according to odds ratio), indicating the strong association between depersonalization and suicidal desire (active and pasive) as one of the suicide risk factors.

Our study patients who suffered from depression with concomitant depersonalization five times more often than patients without depersonalization had suicidal planing (according to odds ratio), indicating the suicidal intent (suicidal plan making) as a serious risk factor which was also strongly associated with depersonalization.

The presence of overall suicidality was in accordance with previous results, indicating that the depressed patients with depersonalization had five times more often then those without depersonalization any type of suicidality. The similar conclusion was derived from the results of the previous studies [18, 20], that reported the higher risk if suicidal thoughts were present longer and occurred more frequently [18, 20]. Our study results also indicated that, in order to assess suicidality, it is very important to establish not only the existance of suicidal thoughts, but also to determine their intensity as a prominent suicidal risk factor.

There are some other facts which indicate and raise suicidal risk. First of all, previous suicide attempt(s) is/are a bad prognostic sign(s) because of a great risk of reattempting or

commiting suicide [21, 22]. In our study almost triple number of patients with previous suicide attempt(s) were in the group with depersonalization which indicated that the combination of previous attempt(s) increases additionally the suicide risk and potential mortality. At the same time, the presence of family history regarding a suicide was also tripled in the group with depersonalization, so this was considered a significant risk factor by some authors [23, 24]. Previous suicidal attempts and family history of suicide had further negative impact on global suicidality pattern in depressed patients with concomitant depersonalization. The association between depersonalization and suicidality in depressive disorder was significant and may be considered as a bad prognostic sign.

However, there are some study limitations: small sample size, cross-section study design, the lack of explanation what kind of relationship it is – direct or indirect among depersonalization and suicidality. In order to find out an answer, we should perform further analysis that could uncover the main road of this association (such as mediation analysis) as well as conduct a research on a larger sample. Our findings are based on a limited number of patients which makes our data vulnerable to statistical biases and increases the threshold for obtaining statistical significance between groups. Data reaching statistical significance may therefore be viewed as highly indicative though not conclusive.

Conclusion

Suicidal potential in persons affected by depressive disorder with clinically manifested depersonalization is prominent. Concomitant pathological depersonalization among depressed patients was associated with the increase of suicidal ideas, active and pasive suicidal desire and suicidal planning. Suicide attempts as well as family history of suicide among depressed patients with depersonalization, additionaly increase a suicide risk. It is necessary to pay particular attention to depersonalization level, during diagnostic and treatment procedure od depressed patients, having in mind that it may be associated with high suicidal potential.

R E F E R E N C E S

1. *Kutcher S, Chehil S*. Suicide Risk Management: A Manual for Health Professionals. Oxford: Lundbeck Institute, Bleckwell Publishing; 2007.
2. *Cheng AT*. Mental illness and suicide. A case-control study in east Taiwan. Arch Gen Psychiatry 1995; 52(7): 594–603.
3. *Cheng AT, Mann AH, Chan KA*. Personality disorder and suicide. A case-control study. Br J Psychiatry 1997; 170(5): 441–6.
4. *Cheng AT, Chen TH, Chen CC, Jenkins R*. Psychosocial and psychiatric risk factors for suicide: Case-control psychological autopsy study. Br J Psychiatry 2000; 177: 360–5.
5. *Simeon D*. Depersonalisation disorder: a contemporary overview. CNS Drugs 2004; 18(6): 343–54.
6. *Sedman G*. Depersonalization in a Group of Normal Subjects. Br J Psychiatry 1966; 112(490): 907–12.
7. *Simeon D, Gross S, Guralnik O, Stein DJ, Schmeidler J, Hollander E*. Feeling unreal: 30 cases of DSM-III-R depersonalization disorder. Am J Psychiatry 1997; 154(8): 1107–13.
8. *Baker D, Hunter E, Lawrence E, Medford N, Patel M, Senior C*, et al. Depersonalisation disorder: clinical features of 204 cases. Br J Psychiatry 2003; 182: 428–33.
9. *Strickland PL, Deakin JF, Percival C, Dixon J, Gater RA, Goldberg DP*. Bio-social origins of depression in the community. Interactions between social adversity, cortisol and serotonin neurotransmission. Br J Psychiatry 2002; 180: 168–73.
10. *Sedman G, Reed GF*. Depersonalization phenomena in obsessional personalities and in depression. Br J Psychiatry 1963; 109: 376–9.
11. *Noyes R, Kletti R*. Depersonalization in response to life-threatening danger. Compr Psychiatry 1977; 18(4): 375–84.
12. *Eckhardt A, Hoffmann SO*. Depersonalization and self-injury. Z Psychosom Med Psychoanal 1993; 39(3): 284–306. (German)
13. *Michal M, Wiltink J, Till Y, Wild PS, Münzel T, Blankenberg S, Beutel ME*. Type-D personality and depersonalization are associated with suicidal ideation in the German general population aged 35-74: results from the Gutenberg Heart Study.J Affect Disord 2010; 125(1-3): 227–33.
14. *Shanafelt TD, Balch CM, Dyrbye L, Bechamps G, Russell T, Satele D*, et al. Special report: suicidal ideation among American surgeons. Arch Surg 2011; 146(1): 54–62.
15. *Sierra M, Berrios GE*. The Cambridge Depersonalization Scale: a new instrument for the measurement of depersonalization. Psychiatry Res 2000; 93(2): 153–64.
16. *Beck AT, Kovacs M, Weissman A*. Assessment of suicidal intention: The Scale for Suicide Ideation. J Consult Clin Psychol 1979; 47(2): 343–52.
17. *Osman A, Barrios FX, Gutierrez PM, Wrangham JJ, Kopper BA, Truelove RS*, et al. The Positive and Negative Suicide Ideation (PANSI) inventory: psychometric evaluation with adolescent psychiatric inpatient samples. J Pers Assess 2002; 79(3): 512–30.
18. *Vannoy SD, Unutzer J*. Detection of suicide risk in patients with depression. WPA Bull Dep 2005; 10(3): 6–8.
19. *Yoshimasu K, Sugahara H, Tokunaga S, Akamine M, Kondo T, Fujisawa K*, et al. Gender differences in psychiatric symptoms related to suicidal ideation in Japanese patients with depression. Psychiatry Clin Neurosci 2006; 60(5): 563–9.
20. *Zikić O, Ćirić S, Mitković M*. Depressive phenomenology in regard to depersonalization level. Psychiatr Danub 2009; 21(3): 320–6.
21. *Beghi M, Rosenbaum JF*. Risk factors for fatal and nonfatal repetition of suicide attempt: A critical appraisal. Curr Opin Psychiatry 2010; 23(4): 349–55.
22. *Gonda X, Fountoulakis KN, Kaprinis G, Rihmer Z*. Prediction and prevention of suicide in patients with unipolar depression and anxiety. Ann Gen Psychiatry 2007; 6: 23.
23. *Qin P, Agerbo E, Mortensen PB*. Suicide risk in relation to family history of completed suicide and psychiatric disorders: A nested case-control study based on longitudinal registers. Lancet 2002; 360(9340): 1126–30.
24. *Mann JJ, Waternaux C, Haas GL, Malone KM*. Toward a clinical model of suicidal behavior in psychiatric patients. Am J Psychiatry 1999; 156(2): 181–9.

Received on December 1, 2016.
Revised on January 17, 2017.
Accepted on January 19, 2017.
Online First February, 2017.