

## DIFFERENT CLINICAL PRESENTATIONS OF RECURRENT EPISODE OF MAJOR DEPRESSIVE DISORDER WITH OR WITHOUT POSTTRAUMATIC STRESS DISORDER

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The aim of this study was comparison of the severity of the recurrent episode in the group of subjects suffering from Major Depressive Disorder with comorbid Posttraumatic Stress Disorder and the group of subjects suffering only from Major Depressive Disorder. A total of 120 subjects were assessed and divided into two groups. Group D/PTSD consisted of subjects who fulfilled diagnostic criteria for recurrent episode of Major Depressive Disorder and comorbid Posttraumatic Stress Disorder. Group D/only consisted of subjects who fulfilled diagnostic criteria for Recurrent episode of Major Depressive Disorder. Assessments were performed using the following instruments: Montgomery-Asberg Depression Rating Scale, Hamilton Depression Rating Scale and Quick Inventory for Depressive Symptomatology Self -Report Version. Statistical analyses were performed using chi square and independent-samples t-test. Results suggest that recurrent episode of Major Depressive Disorder occurring in comorbidity with Posttraumatic stress disorder is more severe than the recurrent episode in the category of patients suffering from recurrent episode of Major Depressive Disorder only and that recurrent episode occurring in comorbidity with Posttraumatic stress disorder might represent a significant clinical entity.

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**Key words:** stress disorders; post-traumatic; depressive disorder, major

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### Introduction

A large number of individuals are exposed to traumatic events: death, the threat of death, or serious injury to the person and others. Previously without manifested psychopathology, a number of individuals develop symptoms. The manifested group of symptoms corresponds, most often, to the diagnosis of posttraumatic stress disorder (PTSD), but

also Major depressive disorder (MDD), and these two disorders were often present in comorbidity (1).

MDD is a well-known clinical entity with clearly defined therapeutic guidelines. However, in the comorbidity with PTSD, MDD becomes a confusing entity. Symptoms of MDD are clearly present, but do not respond to treatment with antidepressants and psychotherapeutic interventions, do not have the usual episodic flow and are accompanied by a significant decrease in functioning and suicidality (2, 3). Comorbid altered patterns of cognitive, affective, and vegetative responses related to PTSD make the clinical presentation of patients difficult and disturbing (4, 5). Faced with such a complex presentation, the clinician has a dilemma whether the diagnosis of MDD is reliable. Literature data show that variations in causal factors of MDD are associated with variations in the clinical picture, that individuals with comorbidity of MDD and PTSD have different neurobiological profiles than those with PTSD only (6-8).

### The Aim

This study was designed to compare clinical presentations of recurrent episode of MDD, with and without posttraumatic stress disorder by using the self-rating and clinician-rated instruments for measuring depression severity.

## Materials and methods

### Study design

This cross-sectional study was performed at The Clinic for Mental Health, Clinical Center Niš, Serbia. The subjects, treatment-seeking, were initially diagnosed as suffering from recurrent episode of the Major Depressive Disorder (MDD) with or without PTSD, using The Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I, modified) (9). The study was performed according to Declaration of Helsinki and all procedures were approved by the Institutional Review Boards at Clinical Center Niš.

### Participants

A total of 120, consecutively admitted subjects, all males, aged between 25 and 65, were included in the analysis. The subjects were included in the study if they met diagnostic criteria for recurrent episode of MDD with or without PTSD, according to Diagnostic and Statistical Manual of Mental Disorders – DSM-IV (9). The exclusion criteria were: lifetime history of psychotic disorder, severe somatic illness, alcohol dependence disorder, and epilepsy. The subjects were divided into two groups: Group D/PTSD consisted of the subjects suffering from recurrent Episode of MDD and PTSD. Group D/only consisted of the subjects suffering from a recurrent episode of MDD only. Each group consisted of 60 subjects. The assessments of the severity of the recurrent episodes were performed within 14 days upon admission.

### Procedures

After having been informed, the participants completed the study procedures. Sociodemographic characteristics were assessed using the semi-structured clinical interview. The severity of the recurrent episode of MDD was assessed using clinician-rated instruments Montgomery-Asberg Depression Rating Scale (MADRS) (10) and Hamilton Depression Rating Scale (HDRS-17) (11). Self-rating was performed using Quick Inventory for Depressive Symptomatology Self-Report Version (QIDS-SR) (12).

### Measures

Montgomery-Asberg Depression Rating Scale, as a clinician-rated instrument was used to measure the presence and the severity of the MDD. The scale consists of 10 items. Each item yields score 0 to 6 on the Likert scale. The overall score determines the severity of the disorder. The higher numerical rating determines more severe disorder. The items assess somatic, cognitive, vegetative and anxious symptoms. MADRS score higher or equal to 20 is considered significant in diagnosing single episode of MDD (10).

Hamilton Depression Rating Scale, as a clinician-rated instrument was used to measure the presence and the severity of depressive symptoms. The scale consists of 17 items. Each item is scored from 0 to 2 or from 0 to 4 on the Likert scale; total scores can range from 0 to 52. The higher numerical rating determines more severe disorder. The scale predominantly assesses cognitive and vegetative symptoms, with relatively few items related to anxiety, social, motor, and mood factors (11).

Quick Inventory for Depressive Symptomatology Self-Report Version is a self-rating instrument designed for screening of depressive symptoms. It consists of 16 questions that include all Diagnostic and Statistical Manual for Mental Disorders-Fourth Edition (DSM-IV) criterion items required to diagnose MDD. The QIDS-SR utilizes equivalent weightings for each symptom item as well as clearly stated anchors for each response. The QIDS-SR 16 scoring system converts each of the 16 response items into the nine symptom criteria domains of MDD (i.e. sad mood, concentration, self-criticism, suicidal ideation, interest, energy/fatigue, sleep disturbance, decrease/increase in appetite/weight, and psychomotor agitation/retardation) and provides a total score ranging from 0 to 27 (12).

Statistical significance between groups was defined as a two-sided *p* value of 0.05 for all analyses, which were carried out using the SPSS software package, v15.0 (13).

## Results

The analysis of demographic data showed that the average age of subjects in the Group D/PTSD was 43.05 years (*SD* = 7.15), and in 44.62 years (*SD* = 9.79) in the Group D/only. The sample was 100% Caucasian. In D/PTSD group 80% of subjects were married, 5% were single, 15% were divorced. In D/only group 61.67% of subjects were married, 15% were single, and 18.33% were divorced. In D/PTSD group, 11.67% of subjects completed elementary school, 85% completed secondary school, and 3.33% had earned master's degree. In D/only group 25% of subjects completed elementary school, 60% completed secondary school, and 15% had earned master's degree. All were employed at the time of the interview. A chi-square test reported significant difference in the educational structures of the investigated groups (*p* = .007). There were no significant differences on participant characteristics regarding age and marital status between two groups.

The independentsamples *t*-tests examined potential group differences on the MDRS and HDRS scores. The D/PTSD group reported higher MDRS and HDRS-17 total scores (*p* < .001) (Table 1). The total scores for D/PTSD group were also higher with respect to QIDS-SR scale (*p* < .001). (Table 2).

**Table 1.** MADRS and HDRS total scores for D/PTSD and D/only group

	D/PTSP					D/only					p
	X	SD	Cv	95%	CI	X	SD	Cv	95%	CI	
MADRS_sum	33.17	6.47	19.50	31.50	34.84	23.40	4.23	18.07	22.31	24.49	***.000
HDRS_sum	28.48	5.75	20.18	27.00	29.97	22.87	4.86	21.23	21.61	24.12	***.000

\*\*\* p &lt; .001

**Table 2.** The values of the total scores of QIDS instrument

	D/PTSD					D/only					p
	X	SD	Cv	95%	CI	X	SD	Cv	95%	CI	
QIDS_sum	18.38	4.52	0.58	17.22	19.55	15.68	3.94	0.51	14.66	16.70	***.000

\*\*\* p &lt; .001

## Discussion

This study compared the clinical presentation of individuals with recurrent episode of Major depressive disorder, with and without PTSD. D/PTSD group was rated as having more severe depression measured by the MADRS, HDRS-17 and QIDS-SR total score.

Comparison of the severity of the recurrent episode of MDD, measured by MADRS, HDRS-17 and QIDS-SR, showed that the severity of the recurrent episode was higher in the group of subjects with PTSD than in the group of subjects suffering from MDD only as demonstrated in other studies (14). Also, from the clinical perspective, results suggest that the recurrent episode of MDD occurring in comorbidity with PTSD represents a significant clinical entity (15). High values on scales measuring the severity of a recurrent episode of MDD suggest that the clinical diagnosis of MDD in comorbidity with PTSD is adequate (16, 17).

The recurrent episode of MDD occurring in comorbidity with PTSD often remains underdiagnosed. The main reason is the overlap of the symptoms of these entities (18). Our approach suggests that the overlap of symptomatology should not be taken as a criterion that excludes, but as a criterion that confirms another diagnosis. The nature of psychopathology is essentially complex and subject to change, and what is now conceptualized as a simultaneous event of multiple disorders can be better reformulated as the complexity of more psychiatric conditions, and as the fact that the increase in complexity is an obvious predictor of more severe disorder, of disability and of use of the health services (8).

Furthermore, the reason for underdiagnoses of the recurrent episode of MDD comorbid to PTSD may be that depressive symptomatology is often overshadowed with the flamboyant symptomatology of posttraumatic stress disorder and therefore remains unrecognized. The nature of intrusive symptomatology implies that the traumatic contents persistently intrude into the consciousness of individ-

uals. Intrusive thoughts, features of nightmares, intrusions of morbid images and episodes of reexperiencing of events, increased psychological and physiological reactivity, high tension, irritability, insomnia, cognitive dysfunction, symptoms of avoidance and affective restriction, manifested in detachment, alienation, strangeness and the sense of foreshortened future, all suggest that the dominant complaints of the person seeking treatment relate to the symptoms of posttraumatic stress disorder. The disturbing nature of a real-life traumatic event associated with simultaneous existence of intrusive cognitive contents and high vegetative hyperarousal implies the absence of thinking activity related to the analysis of the experience, of reflecting, perceiving and analyzing thoughts and affects (19, 20).

Also, the nature of the altered affective reactivity in the posttraumatic stress disorder is that it interferes with the reporting of depressive symptoms by patients. In posttraumatic stress disorder, deverbilization, dissociation, and resomatization of affects occur (21). Predominant feature is the loss of the signaling function of emotions (22). The emotions lose the capacity to serve as signals and no longer lead to organized and adaptive action, but lead to disorganized patterns of response, to flight or fight reactions. (23).

Finally, limitations of the current study should be addressed. First, we recruited a modest number of participants for this study. Second, due to the nature of the PTSD screening, the severity of PTSD was unable to be determined, hindering examination of how PTSD severity affects MDD severity. With these limitations in mind, the study has several strengths. Specifically, structured clinical interviews (i.e., the MADRS, the HDRS-17, and QIDS-SR) were utilized in the assessment of recurrent episode of MDD. Additionally, all participants in the sample met diagnostic criteria for MDD providing a homogeneous sample for the comparison of a subject with and without PTSD.

## Conclusion

The obtained results suggest the validity of the diagnostic construct of comorbidity of MDD and PTSD. Our data on the severity of current recurrent episodes of MDD in subjects suffering from PTSD indicate the importance of MDD diagnostics and the

necessity of determining different pharmacological and psychotherapeutic treatment approaches.

## Competing interests

The authors declare no competing interests.

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## KLINIČKA PREZENTACIJA REKURENTNE EPIZODE VELIKOG DEPRESIVNOG POREMEĆAJA SA POSTTRAUMATSKIM STRESNIM POREMEĆAJEM ILI BEZ NJEGA

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Cilj rada je upoređivanje težine aktuelne rekurentne epizode u grupi subjekata koji pate od velikog depresivnog poremećaja i komorbidnog posttraumatskog stresnog poremećaja sa grupom subjekata koji pate samo od velikog depresivnog poremećaja. Ukupno 120 subjekata sagledano je i raspoređeno u dve grupe. U grupu D/PTSP raspoređeni su subjekti koji su ispunjavali dijagnostičke kriterijume za rekurentnu epizodu velikog depresivnog poremećaja i posttraumatski stresni poremećaj. U grupu D/only raspoređeni su subjekti koji su ispunjavali dijagnostičke kriterijume za rekurentnu epizodu velikog depresivnog poremećaja. Procena težine rekurentne epizode vršena je korišćenjem instrumenata: Montgomery-Asberg skale za depresiju, Hamiltonove skale za depresiju i inventara depresivne simptomatologije. Podaci su analizirani Studentovim t-testom nezavisnih uzoraka. Rezultati su pokazali da je težina aktuelne rekurentne epizode velikog depresivnog poremećaja bila veća kod subjekata koji su patili od komorbidnog posttraumatskog stresnog poremećaja u odnosu na subjekte koji su patili samo od rekurentne epizode velikog depresivnog poremećaja i potvrđuju da predstavlja značajan klinički entitet.

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**Ključne reči:** *stresni poremećaj, posttraumatski poremećaj, veliki depresivni poremećaj*