

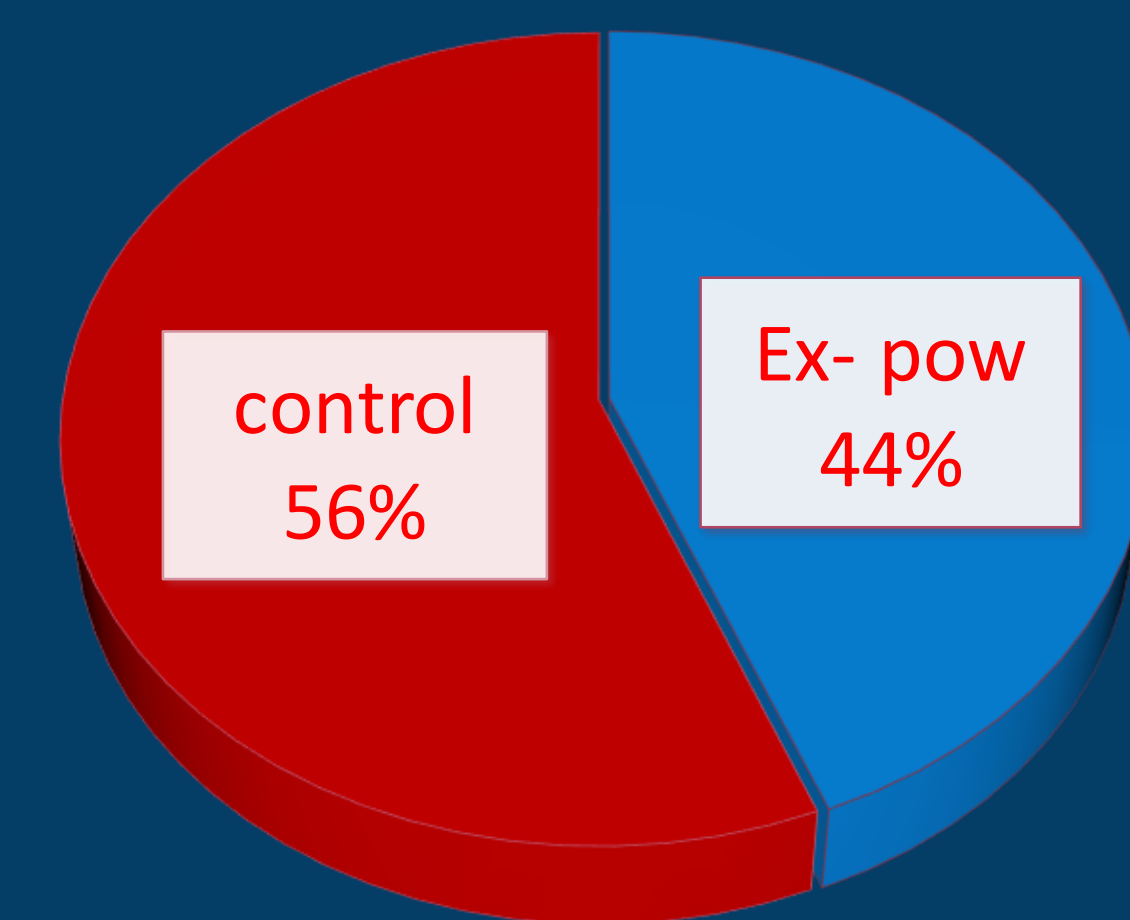
# DEPRESSION IN CROATIAN VETERANS OF THE HOMELAND WAR

MELITA JUKIĆ, LUKA MALENICA  
DEPARTMENT OF PSYCHIATRY, NATIONAL MEMORIAL HOSPITAL VUKOVAR

**INTRODUCTION:** Depression is the most common mental disorder and at the same time one of the most common disorders occurring in comorbidity with post-traumatic stress disorder (PTSD). In the Republic of Croatia, a large number of people still have symptoms of PTSD, as a result of war trauma, and most of them are Croatian veterans of the Homeland War. PTSD often has a very complex clinical picture, which often goes beyond the criteria given by the classifications, and can be extremely demanding in terms of therapeutic approach. The simultaneous existence of PTSD and depression complicates the clinical picture and makes treatment more difficult. It is not always easy to recognize the coexistence of these two disorders, due to the overlapping of a number of symptoms, but it is extremely important in order to prevent unwanted outcomes, such as suicide. Previous research shows that a whole series of factors, in addition to the traumatic experience and the existence of PTSD, can contribute to the onset of depression.

**The Objective** of the study was to determine the intensity of depression in war veterans suffering from PTSD, at the time of the study, with an emphasis on the importance of recognizing depression as a disorder comorbid with persistent PTSD. This study was a part of a larger research that examined the mental and physical health of war veterans.

## SUBJECTS AND METHODS



**SUBJECTS:** 264 war veterans divided into two groups; 116 ex-pow and 148 who were not imprisoned. All of them had PTSD and were treated at the Department of Psychiatry of the NMH Vukovar, at the time of the research (research period 2018-2020).

**QUESTIONNAIRES:** sociodemographic questionnaire (age, work status, marital status, education, financial status); Posttraumatic Check List (PCL 5); Harvard Trauma Questionnaire (number of traumatic events, social support), Beck Depression Inventory.

**CHARACTERISTICS OF THE SUBJECTS:** subjects in the ex-pow group are significantly older than subjects in control group and there are significantly more retirees than in the control group; there are significantly more divorcees in the control group and the financial status of people in the control group is significantly lower.

**NUMBER OF TRAUMATIC EVENTS:** statistically significantly higher in the ex-pow group.

**SOCIAL SUPPORT:** perceived as significantly worse in the control group.

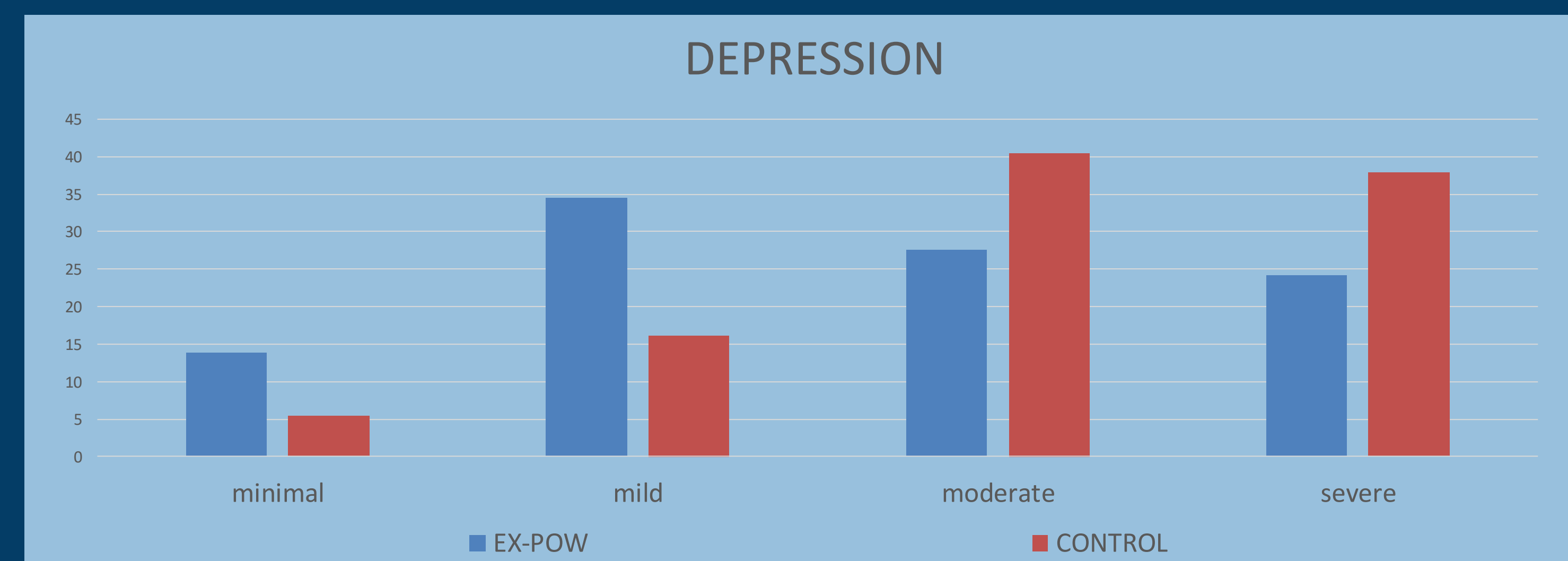
## RESULTS

**PTSD INTENSITY:** total intensity is without significant difference; avoidance symptoms are much more pronounced in the ex-pow group.

PCL-5 SYMPTOM CLUSTERS	Ex-pow		Control group		U‡	p
	(SD)*	Me (IQR)†	(SD)	Me (IQR)		
B- Intrusion symptoms	2,4 (0,7)	2,4 (2,0-2,8)	2,6 (0,8)	2,6 (2,0-3,0)	7664	0,134
C- Avoidance symptoms	3,1 (1,0)	3,0 (2,5-4,0)	2,4 (0,8)	2,5 (2,0-3,0)	12272	<0,001
D- Negative alterations in cognition and mood	2,2 (0,8)	2,0 (1,7-2,6)	2,3 (0,7)	2,3 (1,9-2,7)	8112	0,443
E- Alterations in arousal and reactivity	2,2 (0,8)	2,2 (1,5-2,7)	2,3 (0,7)	2,5 (1,8-2,8)	7568	0,098
Total PCL-5	47,1 (10,6)	49,0 (37,0- 52,0)	48,0 (12,8)	46 (38,0-57,0)	8416	0,785

SD)-Arithmetic mean (Standard deviation); †Me (IQR)-Median (Interquartile range); ‡Mann-Whitney U test

**INTENSITY OF DEPRESSION:** The chi-square ( $\chi^2$ ) test revealed a statistically significant difference ( $\chi^2 = 20.951$ ,  $p < 0.001$ ) between the examined groups in the intensity of depression. The difference is the result of the fact that significantly more respondents from the control group had pronounced ( $n = 56$ , 37.8%) and moderate ( $n = 60$ , 40.5%) depression compared to the ex-pow group (pronounced,  $n = 28$ , 24.1% and moderate,  $n = 32$ , 27.6%).



## CORRELATION ANALYSIS RESULTS:

	Depression (Beck)
Imprisonment	-0,243**
Social support	-0,180**
Age	-0,071
Work status	-0,241**
Education	-0,011
Marital status	-0,248**
Financial status	-0,251**
Traumatic events	-0,039
B	0,277**
C	0,006
D	0,545**
E	0,339**
Total PCL-5	0,429**

\*  $p < 0.05$ , \*\*  $p < 0.01$ ; †B-Intrusion symptoms, C-Avoidance symptoms, D-Negative alterations in cognition and mood, E-Alterations in arousal and reactivity

From the results of Spearman's correlation analysis, it is evident that depression had a statistically significant correlation ( $p < 0.01$ ) with imprisonment, social support, work, marital and financial status.

There is a significant correlation ( $p < 0.01$ ) of depression with the total score on the PCL-5 test as well as with individual clusters of PTSD symptoms, except for cluster D- Negative alterations in cognition and mood.

**REGRESSION ANALYSIS RESULTS:** in addition to TRAUMATIC EXPERIENCE (IMPRISONMENT  $p = 0.001$ ; NUMBER OF TRAUMATIC EVENTS  $< 0.0001$ ), MARITAL STATUS ( $p < 0.0001$ ), FINANCIAL STATUS ( $=0.023$ ), and SOCIAL SUPPORT ( $p = 0.02$ ) proved to be significant predictors of depression intensity.

## CONCLUSION:

From the above, it can be concluded that, in addition to the traumatic experience and the intensity of PTSD, according to other research, a number of other factors contribute to depression, to which we must pay special attention in the treatment of patients with PTSD. It is necessary to regularly evaluate the severity of depression and direct the therapeutic treatment towards the alleviation of, not only symptoms of PTSD, but also of comorbid depressive disorder, paying particular attention to people who live alone and are of low financial status. The necessity of an individual, and often multidisciplinary and integrative approach to treatment is reaffirmed.

## References:

- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5. izd. Arlington, VA: American Psychiatric Publishing; 2013.
- Sutker PB, Allain AN. Assessment of PTSD and other mental disorders in World War II and Korean conflict POW survivors and combat veterans. Psychol Assess. 1996;8:18–25.
- Roley ME, Claycomb MA, Contractor AA, Dranger P, Armour C, Elhai JD. The relationship between rumination, PTSD, and depression symptoms. J Affect Disord. 2015;180:116–21.
- Auxéméry Y. Formes cliniques des dépressions post-traumatiques. Encephale. 2015;41:346–54.
- Erickson DJ, Wolfe J, King DW, King LA, Sharkansky EJ. Posttraumatic stress disorder and depression symptomatology in a sample of Gulf War veterans: A prospective analysis. J Consult Clin Psychol. 2001;69:41–9.
- Yafit Levin LI. Depression and PTSD Co-Morbidity: What are We Missing? J Depress Anxiety. 2014;03:164.
- Campbell DG, Felker BL, Liu CF, Yano EM, Kirchner JAE, Chan D, i sur. Prevalence of depression-PTSD comorbidity: Implications for clinical practice guidelines and primary care-based interventions. J Gen Intern Med. 2007;22:711–8.
- Alliden K, Francišković T, Lavelle J, Mathias M, McInnes K, Mollica R, i sur. Harvard Trauma Questionnaire: Croatian Veterans Version. Cambridge, MA: Harvard Program in Refugee Trauma; 1998.
- Beck AT, Steer RA, Brown GK. Beckov upitnik depresije-II, priručnik. Jastrebarsko: Naklada Slap; 2011.

All authors declare that they have no conflicts of interest.