ТМ	Г. XXXVIII	Бр. 4	Стр. 1683-1697	Ниш	октобар - децембар	2014.

UDK 159.922-057.875:616.89-008.454
Оригиналан научни рад
Примљено: 6. 6. 2014.
Одобрено за штампу: 24. 11. 2014.

Olivera Žikić
Gordana Nikolić
University of Niš
Faculty of Medicine
Niš

TRAUMATIC EXPERIENCES AND DEPRESSION IN STUDENT POPULATION / GENDER DIFFERENCES*

Abstract

Exposure to wartime and post-war traumatic childhood events is a potent risk factor for developing depression symptoms during youth. Using the sample of student population from Serbia and Kosovo and Metohija, this paper attempts to determine if there are gender differences in the occurrence of depression and to determine the frequency of depression symptoms in relation to war-related experiences (WRE), peace-time experiences (PTE), cumulative traumatic experiences (WRE+PTE), or without traumatic experiences (TE). We used the following tools in the paper: general questionnaire for demographic data and type of traumatic event exposure; Beck Depression Inventory (BDI) for depression level and symptoms; for statistics, ANOVA test and chi-square test; and for post-hoc analysis, Tukey's Honestly Significant Difference (HSD) test. The value of $p<0.05$ is taken as statistically significant. The females had a slightly higher level of depression compared to males ((9.04±8.13:6.42±6.93); the group with WRE+PTE had a statistically higher level of depression compared to all other groups. In females, depression was higher in the group with cumulated trauma experiences, compared to the group with PT ($p=0.033$) and to the group without TE ($p=0.002$). Those females had more depression symptoms: crying, agitation, changes in sleep pattern, concentration difficulty, and loss of interest in sex.

Results indicate the need for psychological support for young people, especially for girls in war- and peace-time traumatic experiences.

Key words: traumatic experience, students, depression, gender differences

okac55@gmail.com

* This research/project was supported by Ministry of Education and Science of the Republic of Serbia No. 47023, for the period 2011-2014.

ТРАУМАТСКО ИСКУСТВО И ДЕПРЕСИВНОСТ У СТУДЕНТСКОЈ ПОПУЛАЦИЈИ/ПОЛНЕ РАЗЛИКЕ

Апстракт

Излагања ратним и пост-ратним трауматским догађајима у детињству представљају потенцијалне ризик факторе за настанак депресивних симптома у младости. Циљ рада је да утврдимо да ли има полних разлика у појави депресивности и у учесталости депресивних симптома код студената, у зависности од присуства или одсуства различитих врста траума у ранијем периоду. Група студената из Србије и Косова и Метохије подељена је у односу на то да ли су испитаници имали: (а) са ратом повезана трауматска искуства (WRE), (б) мирнодопска трауматска искуства (PTE), (в) кумулативна трауматска искуства (WRE+PTE) и без трауматских искустава (без TE). У раду смо користили: Општи упитник за демографске податке и тип трауматског излагања; Бекову скалу депресивности (BDI) за ниво депресивности и депресивне симптоме. У статистичкој обради података, користили смо АНОВА тест и хи-квадрат тест. Пост хок анализа је изведена путем Туркеу-овог теста (Tukey's Honestly Significant Difference) (HSD). Вредности за $p<0.005$ су сматране статистички значајним. Жене имају благо виши ниво депресивности у односу на мушкарце (9.04±8.13:6.42±6.93); група са кумулативним трауматским искуством (WRE+PTE) имала је статистички значајно виши ниво депресивности у поређењу са свим осталим групама. У групи девојака са кумулираним трауматским искуством депресивност је била значајно виша у односу на групу са PT ($p=0.033$), као и у односу на групу без TE ($p=0.002$). Ове девојке су имале више депресивних симптома, и то на ајтемима плакање, узнемирење, промена у обрасцу спавања, тешкоће концентрације и губитак сексуалног интересовања.

Резултати указују на потребу за психолошком подршком младима, нарочито девојкама изложеним ратним и другим мирнодопским трауматским искуствима.

Кључне речи: трауматско искуство, студенти, депресивниост, полне разлике

INTRODUCTION

Early traumatic experiences often precede psychosomatic and psychopathological syndromes in adulthood. It is well known that child abuse is connected to psychiatric syndromes such as depression and affective disorders in later life. Some studies indicate a significant association between maltreatment and neglect of a child and physical aggressiveness, psychotic and non-psychotic disorders, and alcohol abuse in adults (Samardžić et al., 2010; Brown et al., 1999; Turner et al., 2006). The consequences of maltreatment during childhood affect psychological development and mental health. Some of them are: insufficient cognitive development and insufficient intelligence (Koenen et al., 2003), neurobiological abnormality, dysfunctional behaviour, aggression, addiction, and higher risk of psychiatric disorders (Glaser, 2000; Ferguson et al., 1996; Schuck & Widom, 2001).

Exposure to war-related and post-war traumatic events in childhood is a potent risk factor for developing depression symptoms or clinical depression in adulthood. The biological basis for such psychological development is the sensitization of the neuroendocrine stress response and insufficient emotional, somatic, and autonomic response to new negative experiences. Female gender and family predisposition also have a significant influence (Heim et al., 2008).

We noticed negative emotional reactions in students that encouraged them to seek counselling. This was the basis on which we decided to explore the negative experiences in their lives. In our previous research (Žikić et al., 2013), female students aged 18-23 were more prone to depression and anxiety than males, especially if exposed to cumulated traumatic war-related experiences. Some other findings indicate that potential peace-time traumatic events in childhood can also provoke the occurrence of depression symptoms in later life. Prospective epidemiological study in England of more than 9,000 subjects showed that negative childhood experience is associated with adult psychopathology, which is not attenuated with age (Clark et al., 2010). Depression symptoms in 40 Khmer adolescents after war experience and peace time life events have been associated with later posttraumatic stress disorder (PTSD) and depression through different pathways during adolescent development (Sack et al., 1996). In adolescent Cambodian refugees, a strong relationship was found between war trauma and PTSD, but depression symptoms were related to more recent negative experiences (Clarke et al., 1993).

In our region, in Bosnian refugee children aged 8-13, almost half of them had clinical forms of depression and 23% had anxiety symptoms after loss of parents during the war. Likewise, children whose parents suffered from war trauma were more prone to depression (Papageorgiou et al., 2000; Yehuda et al., 2001).

The prevalence of Major Depressive Disorder (MDD) reaches up to 50% in the years following negative events, either war-related or peace time. There is also co-occurrence of PTSD and MDD and a differential diagnosis is sometimes difficult (Ducrocq et al., 2001).

Those findings suggest a connection between negative life experience and negative emotions, as well as the importance of preventing exposure to them.

During counselling with our student population, we noticed the co-occurrence of war and post-war traumatic experience in childhood with the current negative emotional symptoms. Some students exhibited various depression symptoms if they had been exposed to adversities at a younger age.

OBJECTIVES

The primary objective of our study was to determine general gender differences in the intensity of depression in our student population and the frequency of depression symptoms depending on whether exposure to traumatic experience was during wartime or peace time.

We also wanted to determine whether there is a difference between males and females in their depression symptoms depending on the type of traumatic experiences.

METHOD

The research was conducted in late May and early June 2011. We included 534 students from Central Serbia and Kosovo and Metohija who attended faculties of the Universities of Kragujevac, Niš, and Kosovska Mitrovica. All of the students had fulfilled questionnaires at their faculties. In order to stay anonymous, the respondents returned the questionnaires in sealed envelopes. After additional verification of the questionnaires, we found that 61 questionnaire was not completely filled out and had to be excluded from the final processing. The questionnaires were correctly filled out by 473 participants.

To obtain the necessary data, we used the following questionnaires:

1. General Questionnaire: used for demographic data and for types of experienced traumatic events. A separate set of questions addressed the war-related events from 1999 during the time of the clashes. These were events in which the subject was exposed to gunfire, crossfire, artillery attacks, bomb explosions, maltreatment and torture, or arrest. The other set of questions considered peace-time traumatic events: serious illness of oneself or family member, death of a close one, divorce of oneself or parents, financial issues, and restricted movement.
2. *Beck Depression Inventory (BDI) (Beck, 1961):* Beck's depression scale is a self-report questionnaire used to assess the intensity of depression. It is composed of 21 items that are answered on a four-point Likert scale ranging from 0 to 3 (with scores ranging from 0 to 63); higher scores indicate greater severity of depression. A cut-off score for the presence of clinically significant form of depression is 10 points. The scale is in Serbian. The final score can be rated as: 0-9 – without clinical depression; 10-18 – mild depression; 19-29 – moderate depression; and 30-63 – severe depression (Richter *et al*.,1998).

All participants were divided into four groups according to the type of traumatic events to which they had been exposed.

1. Group with both types of events: war- and peace-time (WRE+ PTE);
2. Group with war-related experience (WRE);
3. Group with peace-time trauma experience (PTE);
4. Group without any traumatic experience (without TE).

In subsequent data processing, these groups were compared according to depression and the frequency of some depression symptoms. We also compared groups of females and males to determine if there is a difference in depression intensity based on gender.

Statistical Processing

We determined statistically significant differences among the groups using the ANOVA test and the chi-square test. We performed the post-hoc analysis using Tukey's Honestly Significant Difference (HSD) test. The value of $p<0.05$ was taken as statistically significant. For statistical processing, we used the statistical software SPSS 17.

RESULTS

The total sample of 437 subjects included 219 males (46.3%) and 254 females (53.7%). The average age was 21.28 ±2.44 years. The level of depression for the total sample was 7.82±7.7, but females had a slightly higher level (9.04±8.13) compared to males 6.42±6.93 (Table 1).

In the total sample, the highest depression level was found in subjects with cumulated traumatic experiences (9.72) and the lowest in subjects without traumatic experiences (TE) (5.98). The difference between groups was significant.

In the male group, the highest depression was found in those with both WRE and PTE experience (8.13) and the lowest in those with WRE (4.85).

The level of depression was higher in females with cumulated and only war-related traumatic experience compared to the ones without those events (Table 1).

Table 1. Depression intensity depending on traumatic experience

Depression in the total sample							
Types of traumatic experience	N	Mean	SD	95% Confidence Interval		F	P
				Lower Bound	Upper Bound		
WRE +PTE	180	9.72	8.39	8.48	10.95		
WRE	154	7.19	7.84	5.93	8.43		
PTE	41	6.32	4.93	4.76	7.87	6.601	0.000
Without TE	98	5.98	6.3	4.72	7.24		
Total	473	7.82	7.7	7.12	8.52		
Depression in males							
Types of traumatic experience	N	Mean	SD	95% Confidence Interval		F	P
				Lower Bound	Upper Bound		
WRE+PTE	84	8.13	7.49	6.50	9.76		
WRE	72	4.85	5.82	3.48	6.22		
PTE	14	6.21	5.48	3.05	9.38	3.158	0.026
Without TE	49	5.84	7.30	3.74	7.93		
Total	219	6.42	6.93	5.49	7.34		
Depression in females							
Types of traumatic experience	N	Mean	SD	95% Confidence Interval		F	P
				Lower Bound	Upper Bound		
WRE+PTE	96	11.10	8.92	9.30	12.91		
WRE	82	9.24	8.79	7.31	11.18		
PTE	27	6.37	4.73	4.50	8.24	5.427	0.001
Without TE	49	6.12	5.19	4.63	7.61		
Total	254	9.04	8.13	8.04	10.04		

N = number of patients; SD = standard deviation; F = ANOVA coefficient;
WRE – war-related experience; PTE – peace-time traumatic experience;
TE – traumatic experience

Post-hoc analysis showed a significant difference between groups in the level of depression caused by different traumatic experiences. The group with cumulated traumatic experiences had a statistically higher level of depression compared to all other groups, e.g. with the group with WRE (p=0.013), the group with PTE (p=0.013), and the group without TE (p=0.001).

The similar result was obtained in relation to groups of males and females. In the male group, depression was significantly higher in those with cumulated WRE + PTE as compared to the group with only WRE (p=0.016). In females, depression was higher in the group with cumulated trauma experiences, compared to the group with PTE (p=0.033) and to

the group without TE (p=0.002). Our results indicate a statistically significant difference in the depression symptoms between genders, depending on traumatic experience (Table 2.).

Table 2. Depression symptoms and gender depending on traumatic experience

Depression symptoms	WRE+PTE			WRE			PTE			Without TE		
	X2	df	P value	X2	df	P value	X2	df	P value	X2	df	P value
Sadness	5.308	3	0.151	18.135	3	***0.000****	3.827	2	0.148	2.111	2	0.348
Pessimism	1.546	3	0.672	6.581	3	0.087	6.343	3	0.096	2.439	3	0.486
Past Failure	7.126	3	0.680	5.062	3	0.167	0.742	2	0.690	2.311	2	0.315
Loss of Pleasure	2.087	3	0.555	6.639	3	0.084	4.805	3	0.187	3.867	3	0.276
Feeling of Guilt	1.402	3	0.704	1.034	3	0.793	2.12	2	0.347	0.483	2	0.612
Need for Punishment	3.242	3	0.356	5.860	3	0.119	2.572	3	0.462	2.442	3	0.486
Self-hatred	1.513	3	0.679	0.294	3	0.961	0.235	1	0.628	1.143	2	0.565
Self-criticism	4.837	3	0.180	7.009	3	0.072	1.691	2	0.429	6.693	3	0.082
Suicidal Thoughts	1.925	3	0.588	0.510	2	0.775	0.831	1	0.466	2.045	2	0.360
Crying	34.136	3	***0.000****	17.559	3	***0.001****	6.858	3	0.071	2.806	3	0.423
Agitation	21.018	3	***0.000****	11.932	3	***0.008****	3.105	3	0.376	5.46	3	0.141
Loss of Interest	0.028	2	0.986	9.251	3	***0.026****	0.579	2	0.749	2.066	3	0.559
Indecisiveness	1.376	2	0.502	4.037	3	0.257	1.68	2	0.432	1.591	3	0.661
Worthlessness	1.367	3	0.716	2.812	3	0.422	1.977	1	0.160	0.545	2	0.761
Loss of Energy	5.588	3	0.133	8.636	3	***0.035****	0.595	2	0.743	6.937	3	0.074
Changes in Sleep Pattern	17.57	3	***0.001****	12.130	3	***0.007****	0.441	2	0.802	3.676	3	0.299
Tiredness or Fatigue	5.407	3	0.144	10.115	3	***0.018****	1.191	2	0.551	1.167	2	0.558
Changes in Appetite	1.073	2	0.585	9.710	3	**0.021***	0.934	2	0.627	2.012	3	0.570
Concentration Difficulty	13.981	3	***0.003****	13.861	3	***0.003****	6.244	3	0.100	6.64	2	***0.035****
Concern about Health	5.649	3	0.130	6.458	3	0.091	1.522	1	0.217	0.73	2	0.694
Loss of Interest in Sex	10.636	3	***0.014****	7.323	3	0.062	0.165	1	0.685	3.614	2	0.306

WRE – war-related experience; PTE – peace-time traumatic experience; TE – traumatic experience

In the group with cumulated traumatic experience (WRE+PTE) there was a statistically significant gender difference based on depression symptoms for the following items: Crying, Agitation, Changes in Sleep Pattern, Concentration Difficulty, and Loss of Interest in Sex. Those symptoms were more frequent in all females. They cried considerably more often than before, they got agitated more easily, they were more irritable and sleepless, they had concentration difficulties and a diminished interest in sex (Table 3).

Table 3. Gender difference in the group with cumulated trauma experience

Crying	Usual crying	Crying more than usual	Crying all the time	Feel like crying but cannot	Total
Male	66 (78.6%)	5 (6.0%)	1 (1.2%)	12 (14.35)	84 (100%)
Female	41 (42.7%)	35 (36.5%)	9 (9.4%)	11 (11.5%)	96 (100%)
Agitation	Usual agitation	Agitated and irritated more than before	Agitated all the time	I cannot get agitated in situations that agitated me before	Total
Male	61 (72.5%)	16 (19.0%)	3 (3.6%)	4 (4.8%)	84 (100%)
Female	40 (41.7%)	45 (46.9%)	1 (1.0%)	10 (10.4%)	96 (100%)
Changes in Sleep Pattern	Usual sleep pattern	Sleeping is not as good as usual	Waking up one or two hours earlier	Waking up a few hours earlier than usual	Total
Male	47 (56.0%)	22 (26.2%)	14 (16.7%)	1 (1.2%)	84 (100%)
Female	32 (33.3%)	54 (56.3%)	8 (8.3%)	2 (2.1%)	96 (100%)
Concen-tration Difficulty	Usual concentration	I cannot concentrate as usual	Difficulty in maintaining concentration on anything	I cannot concentrate on anything	Total
Male	53 (63.1%)	26 (31.0%)	1 (1.2%)	4 (4.8%)	84 (100%)
Female	41 (42.7%)	37 (38.5%)	14 (14.6%)	4 (4.2%)	96 (100%)
Loss of Interest in Sex	Usual interest in sex	Less interest in sex than usual	Much less interest in sex	Total loss of interest in sex	Total
Male	80 (95.2%)	2 (2.4%)	0 (0.0%)	2 (2.4%)	84 (100%)
Female	76 (79.2%)	14 (14.6%)	1 (1.0%)	5 (5.2%)	96 (100%)

In the group with WRE there was a statistically significant gender difference in the frequency of certain symptoms (Table 4). Women were more often sad, cried more than usual and got more agitated and irritated than before. They also had less interest in other people, had to make special effort to get things started, their sleep was not as good as usual, they were more tired, their appetite was reduced, and their concentration was diminished (Table 4).

Table 4. Gender difference in the group with WRE

Sadness	Not sad	I am sad	Sadness all the time, I cannot get over it	So sad that I cannot bear it anymore	Total
Male	69 (95.8%)	3 (4.2%)	0 (0.0%)	0 (0.0%)	72 (100%)
Female	57 (69.5%)	20 (24.4%)	3 (3.7%)	2 (2.4%)	82 (100%)
Crying	Usual crying	Crying more than usual	Crying all the time	Feel like crying but cannot	Total
Male	66 (91.7%)	3 (4.2%)	0 (0.0%)	3 (4.2%)	72 (100%)
Female	53 (64.6%)	18 (22.0%)	5 (6.1%)	6 (7.3%)	82 (100%)
Agitation	Usual agitation	Agitated and irritated more than before	Agitated all the time	I cannot get agitated in situations that agitated me before	Total
Male	56 (77.8%)	12 (16.7%)	0 (0.0%)	4 (5.6%)	72 (100%)
Female	44 (53.7%)	32 (39.0%)	2 (2.4%)	4 (4.9%)	82 (100%)
Loss of Pleasure	Usual interest in people	Less interest in people than usual	Mostly not interested in people	Complete loss of interest in people	Total
Male	57 (79.2%)	14 (19.4%)	0 (0.0%)	1 (1.4%)	72 (100%)
Female	52 (63.4%)	24 (29.3%)	6 (7.3%)	0 (0.0%)	82 (100%)
Loss of Energy	Able to work as usual	Need extra effort to start doing things	Need very much effort to do anything	Not able to work at all	Total
Male	59 (81.9%)	12 (16.7%)	1 (1.4%)	0 (0.0%)	72 (100%)
Female	51 (62.2%)	24 (29.3%)	5 (6.1%)	2 (2.4%)	82 (100%)
Changes in Sleep Pattern	Usual sleep pattern	Sleeping is not as good as usual	Waking up one or two hours earlier	Waking up a few hours earlier than usual	Total
Male	52 (72.2%)	17 (23.6%)	3 (4.2%)	0 (0.0%)	72 (100%)
Female	38 (46.3%)	37 (45.1%)	4 (4.9%)	3 (3.7%)	82 (100%)
Tiredness or Fatigue	Usual fatigue	Getting tired easily	Getting tired in all activities	Too tired to do anything	Total
Male	53 (73.6%)	16 (22.2%)	3 (4.2%)	0 (0.0%)	72 (100%)
Female	43 52.4%)	34 (41.5%)	2 (2.4%)	3 (3.7%)	82 (100%)
Changes in Appetite	More reduced appetite than usual	Appetite is not as good as before	Very poor appetite	Total loss of appetite	Total
Male	60 (83.3%)	8 (11.1&)	4 (5.6%)	0 (0.0%)	72 (100%)
Female	50 (61.0%)	20 (24.4%)	11 (13.4%)	1 (1.2%)	82 (100%)
Concentration Difficulty	Usual concentration	I cannot concentrate like usual	Difficulty in maintaining concentration on anything	I cannot concentrate on anything	
Male	52 (72.2%)	13 (18.1%)	5 (6.9%)	2 (2.8%)	72 (100%)
Female	40 (48.8%)	36 (43.9%)	6 (7.3%)	0 (0.0%)	82 (100%)

In the group without TE, a statistically significant difference was found for concentration difficulties – women could not concentrate like usual. In the group with PTE, there was no gender difference in depression symptoms (Table 2)

DISCUSSION

Early adversities and wartime and peace-time exposure to traumatic events could be important for early adulthood psychopathology. The mental health of young people depends on numerous factors. Recent emotional experience and developmental conditions during childhood shape the personality and psycho-social functioning. Our sample of student population was exposed to war-related experience during the most sensitive period of their growth, at the ages of 6-11. A considerable number of them also had some traumatic events in the post-war period.

During adolescence and young adulthood, psychological counselling is important to cope with learning difficulties or emotional issues during studying. We noticed that depression symptoms are the main psychological issue. In most cases, they do not reach the level of a psychiatric disorder, but can still interfere with their academic achievement. In our sample, the persons with war-related and non-war-related trauma exposure also had more depression symptoms as well as a higher depression score compared to those without adversities. It means that young people exposed to cumulated traumatic experiences are possibly at risk of developing depression symptoms in early adulthood. This result is similar to the conclusions of Chu et al. (2013) that early life trauma predisposes nonclinical community adults to depression and anxiety symptoms when compared to those without childhood trauma and adult trauma exposure. The findings of some other authors also confirm that accumulated traumas are important for later depression, posttraumatic stress disorder, and anxiety (Jamil et al., 2007; Chu et al., 2013).

Other studies from our region also emphasize that depression is a late psychological consequence of war. In the findings of Nelson et al. (2004), depression was detected in 49% of civilian subjects in Kosovo and in Belgrade, three years after NATO bombing, suggesting a connection between war-related traumatic experiences and later affective disorders. Similar results pertain to depression and other psychiatric comorbidities, ten years after the civil war in former Yugoslavia, which are connected with multiple war-related traumatic events and not with post-war or peace-time trauma (Morina et al., 2010). Opposing results were found in two other studies, performed in Bosnia (Kucukalić et al., 2004) and in Serbia (Pejović-Milovanović et al., 2002). They claimed that maltreatment in childhood is more significant for predicting symptoms of depression and anxiety than war-related experience.

In a similar study, the most common factors that preceded depression in adolescence were maltreatment and neglect, but the authors did not find a gender difference (Harkness et al., 2008). In addition, the war-related trauma predispose persons to sleep disorder, reduced body mass index, symptoms of anxiety, and depression in adulthood if they have been exposed between the ages of 9 and 12, but without any gender difference (Llabre & Hadi, 2009).

In our sample there is a gender difference. The females showed more emotional difficulties and depression symptoms and their depression was more pronounced than in males. Our results are consistent with recent findings that female adolescents exposed to war and post-war childhood trauma were more prone to risk behaviour and depression symptoms than males (Okello et al., 2013). Gender differences in psychological consequences of war were observed in child soldiers in Nepal. Girls developed depression and boys developed PTSD (Kohrt et al., 2008).

In our group with WRE only, females also had more depression symptoms, as was the case with the group without traumatic experience, as compared to males. In the male group, the level of depression was higher if they had been exposed to cumulative traumatic experience compared to those with only WRE. Cultural factors in our country might explain why boys are more resilient to war events than girls. We found that our female students expressed more depression symptoms if exposed to cumulative traumatic experience. They cried more, got more agitated, slept less, lost interest in sex, and experienced concentration problems. These depression symptoms could indicate their higher vulnerability to stress or they may represent learned behaviour in a family setting. On the other hand, the psychological symptoms that do not constitute clinical depression could be a part of adolescent development and their way of coping with the current and past negative events. Higher frequency of depression symptoms in girls could indicate their higher exposure to adversities during childhood than in boys (WRE and PTE). In those who develop depression after childhood adversities, structural and functional changes in their brains lead to altered emotional, cognitive, and autonomic processing and converge to mood and anxiety symptoms. In general, clinical depression is more common in women than in men and such gender difference is attributed to neuroendocrine specificity – influence of oestrogen on the hypothalamus and corticotrophin-releasing factor neurons, as well as on the serotonin transmission system. Sex hormones play a role in the development and plasticity of other limbic centres important for stress responsiveness, such as the hippocampus and amygdale, which are also involved in the exhibiting of depression symptoms and behaviour (Heim et al., 2008).

Yet, our study is not free of limitations. Our sample consists of a relatively healthy student population in which depression did not reach a clinically significant level. We considered only groups with war and post-war traumatic events and without traumatic exposure, respectively. Many other parameters, such as family history of psychiatric disorders and current living conditions, were not considered. Risk behaviour and academic achievement should be monitored in the next prospective study and estimated in relation to existing traumatic experiences and depression symptoms. A more detailed assessment of many parameters is required in

order to establish a connection between early war and post-war traumatic exposure and specific depression symptoms. Our findings suggest a need for further study of emotional consequences of exposure to traumatic events and mental health effects on young people after cumulative traumatic experiences. Gender specific intervention for female students could prove to be significant. It is necessary to promote and improve psychological intervention after traumatic events at an early age in order to prevent depression symptoms in adulthood.

CONCLUSION

In our sample of student population from Kosovo and Metohija and Serbia there was a gender difference in the level of depression and frequency of depression symptoms according to the type of traumatic events in childhood. The average depression level was higher in females than in males but did not meet the criteria for clinical depression. There were more depression symptoms and a higher depression level in females exposed to cumulated trauma experience (WRE+PTE) compared to those with only one type of traumatic event or without traumatic experience, as well as compared to males.

The results indicate the need for psychological support for young people, especially for girls with war- and peace-time related traumatic experiences in childhood.

REFERENCES

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. K. (1961). An inventory for measuring depression. *Archives of general psychiatry*, *4*(6), 561-571. doi:10.1001/archpsyc.1961.01710120031004

Brown, J., Cohen, P., Johnson, J. G., & Smailes, E. M. (1999). Childhood abuse and neglect: specificity of effects on adolescent and young adult depression and suicidality. *Journal of the American Academy of Child & Adolescent Psychiatry*, *38*(12), 1490-1496. doi:10.1097/00004583-199912000-00009

Chu, D. A., Williams, L. M., Harris, A. W., Bryant, R. A., & Gatt, J. M. (2013). Early life trauma predicts self-reported levels of depressive and anxiety symptoms in nonclinical community adults: Relative contributions of early life stressor types and adult trauma exposure. *Journal of psychiatric research*, *47*(1), 23-32. doi:10.1016/j.jpsychires.2012.08.006

Clark, C. H., Caldwell, T., Power, C. H., & Stansfeld, S. (2010). Does the Influence of childhood adversity on sychopathology persist across the lifecourse? A 45-Year. Prospective epidemiologic study. *Annals of Epidemiology,* 20, 385-394. doi:10.1016/j.annepidem.2010.02.008

Clarke, G., Sack, W. H., & Goff, B. (1993). Three forms of stress in Cambodian adolescent refugees. *Journal of Abnormal Child Psychology*, *21*(1), 65-77. doi: 10.1007/BF00910489

Ducrocq, F., Vaiva, G., Cottencin, O., Molenda, S., & Bailly, D. (2001). Post-traumatic stress, post-traumatic depression and major depressive episode: literature. *L'Encéphale*, 27(2), 159.

Fergusson, D. M., Horwood, L., & Lynskey, M. T. (1996). Childhood sexual abuse and psychiatric disorder in young adulthood: II. Psychiatric outcomes of childhood sexual abuse. *Journal of the American Academy of Child & Adolescent Psychiatry,* 35(10), 1365-1374. doi:10.1097/00004583-199610000-00024

Glaser, D. (2000). Child abuse and neglect and the brain—a review. *Journal of child psychology and psychiatry,* 41(01), 97-116. doi: 10.1111/1469-7610.00551

Harkness, K. L., Lumley, M. N., & Truss, A. E. (2008). Stress generation in adolescent depression: The moderating role of child abuse and neglect. *Journal of abnormal child psychology,* 36(3), 421-432. doi: 10.1007/s10802-007-9188-2

Heim, C., Newport, D. J., Mletzko, T., Miller, A. H., & Nemeroff, C. B. (2008). The link between childhood trauma and depression: insights from HPA axis studies in humans. *Psychoneuroendocrinology,* 33(6), 693-710. doi:10.1016/j.psyneuen.2008.03.008

Jamil, H., Farrag, M., Hakim-Larson, J., Kafaji, T., Abdulkhaleq, H., & Hammad, A. (2007). Mental health symptoms in Iraqi refugees: posttraumatic stress disorder, anxiety, and depression. *Journal of cultural diversity,* 14(1), 19-25.

Koenen, K. C., Moffitt, T. E., Caspi, A., Taylor, A., & Purcell, S. (2003). Domestic violence is associated with environmental suppression of IQ in young children. *Development and psychopathology,* 15(02), 297-311. doi:10.1017/S0954579403000166.

Kohrt, B. A., Jordans, M. J., Tol, W. A., Speckman, R. A., Maharjan, S. M., Worthman, C. M., & Komproe, I. H. (2008). Comparison of mental health between former child soldiers and children never conscripted by armed groups in Nepal. *Jama,* 300(6), 691-702. doi:10.1001/jama.300.6.691

Kucukalić, A., Bravo-Mehmedbasić, A., & Dzubur-Kulenović, A. (2004). Specific differences in trauma related symptoms between the refugees survivors of torture and refugees of war. *Psychiatria Danubina,* 16(1-2), 55-60.

Llabre, M. M., & Hadi, F. (2009). War-related exposure and psychological distress as predictors of health and sleep: a longitudinal study of Kuwaiti children. *Psychosomatic medicine,* 71(7), 776-783. doi: 10.1097/PSY.0b013e3181ae6aee

Morina, N., Rushiti, F., Salihu, M., & Ford, J. D. (2010). Psychopathology and well-being in civilian survivors of war seeking treatment: a follow-up study. *Clinical psychology & psychotherapy,* 17(2), 79-86. doi: 10.1002/cpp.673

Nelson, B. D., Fernandez, W. G., Galea, S., Sisco, S., Dierberg, K., Gorgieva, G. S., ... & Vlahov, D. (2004). War-related psychological sequelae among emergency department patients in the former Republic of Yugoslavia. *BMC medicine,* 2(1), 22. doi:10.1186/1741-7015-2-22

Okello, J., Nakimuli-Mpungu, E., Musisi, S., Broekaert, E., & Derluyn, I. (2013). War-related trauma exposure and multiple risk behaviors among school-going adolescents in Northern Uganda: The mediating role of depression symptoms. *Journal of affective disorders,* 151(2), 715-721. doi:10.1016/j.jad.2013.07.030

Papageorgiou, V., Frangou-Garunovic, A., Iordanidou, R., Yule, W., Smith, P., & Vostanis, P. (2000). War trauma and psychopathology in Bosnian refugee children. *European child & adolescent psychiatry,* 9(2), 84-90. doi: 10.1007/s007870050002

Pejović-Milovančević, M., Minčić, T., Tenjović, L., Išpanović-Radojković, V., Kalanj, D., Radosavljev, J., ... & Vidojević, O. (2002). Posledice zlostavljanja i zanemarivanja adolescenata u porodicama [The establishment of abuse and neglect consequences in family of adolescnets]. *Psihijatrija danas,* 34(3-4), 237-51.

Richter, P., Werner, J., Heerlein, A. E. S., Kraus, A., & Sauer, H. (1998). On the validity of the Beck Depression Inventory. *Psychopathology*, 31(3), 160-168. doi: 10.1159/000066239

Sack, W. H., Clarke, G. N., & Seeley, J. (1996). Multiple forms of stress in Cambodian adolescent refugees. *Child Development*, 67(1), 107-116. doi: 10.1111/j.1467-8624.1996.tb01722.x

Samardžić, L., Nikolić, G., Grbeša, G., Simonović, M., & Milenković, T. (2010). Correlation of adverse childhood experiences with psychiatric disorders and aggressiveness in adulthood. *Vojnosanitetski pregled*, 67(8), 653-658. doi:10.2298/VSP1008653S

Schuck, A. M., & Widom, C. S. (2001). Childhood victimization and alcohol symptoms in females: causal inferences and hypothesized mediators. *Child abuse & neglect*, 25(8), 1069-1092. doi: 10.1016/S0145-2134(01)00257-5

Turner, H. A., Finkelhor, D., & Ormrod, R. (2006). The effect of lifetime victimization on the mental health of children and adolescents. *Social Science & Medicine*, 62(1), 13-27. doi:10.1016/j.socscimed.2005.05.030

Yehuda, R., Halligan, S. L., & Bierer, L. M. (2001). Relationship of parental trauma exposure and PTSD to PTSD, depressive and anxiety disorders in offspring. *Journal of psychiatric research*, 35(5), 261-270. doi:10.1016/S0022-3956(01)00032-2

Zikic, O., Krstic, M., Randjelovic, D., Nikolic, G., Dimitrijevic, B., & Jaredic, B. (2013). Anxiety and Depression in Students with Childhood War-Related Experiences. *Journal of Loss and Trauma*, Published online*: 19 Dec 2013*. doi: 10.1080/15325024.2013.828560

Оливера Жикић, Гордана Николић, Универзитет у Нишу, Медицински факултет, Ниш

ТРАУМАТСКО ИСКУСТВО И ДЕПРЕСИВНОСТ У СТУДЕНТСКОЈ ПОПУЛАЦИЈИ/ПОЛНЕ РАЗЛИКЕ

Резиме

Рана трауматска искуства често претходе психосоматским и психопатолошким симптомима у одраслом добу. Добро је познато да је злоупотреба детета повезана са настанком психијатријских синдрома у каснијем животу, нарочито депресијом и другим афективним поремећајима. Досадашње искуство указује да излагање ратним и послератним трауматским догађајима у детињству представља ризик фактор за настанак депресивних симптома или клиничке депресије у каснијем животу. Биолошка основа оваквог психолошког развоја је сензитизација неуроендокриног стресног одговора и инсуфицијентна емоционална телесна и аутономна реакција на нова негативна искуства. Значајни утицај има женски пол и породична предиспозиција. У саветодавном раду са нашим студентима, приметили смо да се ратно и послератно трауматско искуство у детињству јавља заједно са актуелним депресивним симптомима. Истраживањем смо обухватили 473 студента са Косова и из централне Србије. Примарни циљ је био да одредимо разлику у интензитету депресивности међу половима и учесталост депресивних симптома у зависности од изложености ратним или мирнодопским негативним догађајима. Такође смо желели да утврдимо да ли постоји разлика између мушкараца и жена у заступљености депресивних симптома у зависности од типа трауматског искуства. Применили смо: Општи упитник за демографске податке и податке о врсти трауматског излагања: повезаног са ратом, повезаног са мирнодопским траумама, са кумулативним траумама. За мерење интензитета депресивности и учесталост депресивних симптома, применили смо Бекову скалу депресивности. Резултати указују да у односу на целокупан узорак група са кумулираним трауматским искуством је имала статистики значајно виши ниво депресивности у односу на све остале групе. Жене имају нешто вишу депресивност од мушкараца. У групи са кумулираним трауматским искуством, жене имају значајно више депресивних симптома — плакање, узнемиреност, поремећај спавања, тешкоће концентрације и губитак сексуалног интересовања — у односу на мушкарце. Жене са кумулираним трауматским искуством имају више депресивних симптома у односу на оне са мирнодопским трауматским искуством и онима без трауматског искуства. Наши налази указују на потребу даљег истраживања емоционалних последица излагања трауматским догађајима и последица по ментално здравље младих након кумулативног трауматског искуства. Потребно је истаћи значај психолошких интервенција након трауматских догађаја у млађем узрасту да би се превенирала појава депресивних симптома у одраслом добу.