

including affect and impulse dysregulation; transient dissociative episodes; somatic complaints and altered relationships with self and others; as well as symptoms of depression and anxiety. Recommended medication for PTSD do not resolve all symptoms clusters, and can even worsen associated features. In searching for such medication which can stabilize mental tension, which improves information-processing and cognitive integration, that activates serotonergic pathways and improves sleep, we turned to risperidone (Risperidone) due to its receptor profile.

The study was designed to establish the efficacy of risperidone in the treatment of associated symptoms in chronic posttraumatic stress disorder. Subjects with chronic PTSD were assessed during first visit and again at the end of the treatment, using the following instruments: MADRS, HAMA, MMPI and PIE. The results obtained show significant reduction in total MADRS and HAMA scores. The results of the psychological testing shed some light on the possible mechanism of action of this medicament. We discuss the results, our own clinical impressions and further directions in this area of importance as to develop more efficient and successful approach in the treatment of chronic PTSD.

## P182

The spiritual approach in the group psychotherapy treatment of psychotraumatized persons in post-war Bosnia and Herzegovina

M. Hasanović<sup>1</sup>, I. Pajević<sup>1</sup>, O. Sinanović<sup>2</sup>. <sup>1</sup> *Department of Psychiatry, University Clinical Center Tuzla, Tuzla, Bosnia-Herzegovina* <sup>2</sup> *Department of Neurology, University Clinical Center Tuzla, Tuzla, Bosnia-Herzegovina*

There are strong evidences that intensive physical and/or psychical traumas can devastate human soul and leave traumatized persons in ruins. Psychological trauma and post-traumatic stress disorder (PTSD) may have intensive negative impact on the spiritual beliefs or the belief in God, so it can diminish social and professional skills of many survivors. During the war in Bosnia-Herzegovina (1992-1995) the whole population, regardless of age, gender, nationality or profession, was seriously damaged. Following up the needs of patients who were showing spiritual inclination, a session of group psychotherapy, with spiritual topics and content, was offered. The persons who come to the Psychiatry Clinic, who are interested to strengthen spiritually, are meeting each other in the group regardless of religious or spiritual conviction. Supportive and empathetic presence of such group in the community helps in prevention of withdrawal and isolation, alienation or deviation of traumatized persons. The presence of such group facilitates rehabilitation process of the victims, allowing them to understand that people are at their disposal in certain critical moments, to help, to offer protection or to console. Groups like this one, offer long term social and spiritual support to the extremely severe trauma victims.

**Keywords:** Spirituality - Group psychotherapy - Psycho-traumatized - Bosnia and Herzegovina

## P183

The influence of religiosity on mental stability of war veterans

I. Pajević<sup>1</sup>, O. Sinanović<sup>2</sup>, M. Hasanović<sup>1</sup>. <sup>1</sup> *Department of Psychiatry, University Clinical Center Tuzla, Tuzla, Bosnia-Herzegovina* <sup>2</sup> *Department of Neurology, University Clinical Center Tuzla, Tuzla, Bosnia-Herzegovina*

**Aim:** To determine the influence of religiosity on mental stability of war veterans after stress situations in Bosnia-Herzegovina war (1992-95).

**Method:** The sample consists of 98 healthy males aged 20-40 years, with equable educational level. The religiosity level of participants measured with frequency of daily prayers performing, and with inner motivation toward religion. The sample divided in: group of subjects that are highly religious (n=48) who perform prayers every day five times, and another group of subjects who are lowly religious (n=50), who do not practice any daily prayer. For sample selection the measuring instruments were used to assess spiritual, religious, and social profile of subject. For assessment of personality structure were used standardized psychometric tests (Minnesota Multiphasic Personal Inventory – MMPI, Profile Index of Emotions – PIE, Life Style Questionnaire - OM) to assess personality profile, emotional profile, and subject's defense orientation.

**Results:** Regarding MMPI scores: highly religious war veterans presented significantly lower levels for depression (P=0.021), hysteria (P=0.048), psychopathic (P=0.004), and paranoid (P=0.005) than war veterans who were low religious. According the OM scores: highly religious war veterans expressed significantly lower levels for: regression (P<0.001), compensation (P=0.002), transfer (P<0.001), and reactive formation (P<0.001) than low religious ones. In PIE scores highly religious subjects had significantly higher levels for: incorporation (P=0.008) and self-protection (P<0.001), but lower levels for no-controlling (P<0.001), oppositionality (P<0.001), and aggressiveness (P=0.001).

**Conclusion:** Highly religious war veterans presented better ability to deal with stress and to keep mental balance than their peers who were lowly religious.

## P184

PTSD, depression, anxiety, and substance misuse among of medical and philosophy university students in Bosnia-Herzegovina after 1992-95 war

O. Sinanovic<sup>1,2,3</sup>, M. Hasanovic<sup>2,3</sup>, E. Babajic<sup>3</sup>, M. Salkic<sup>3</sup>, J. Mujanovic<sup>3</sup>, A. Begic<sup>3</sup>, Z. Music<sup>3</sup>. <sup>1</sup> *Department of Neurology, University Clinical Center Tuzla, Tuzla, Bosnia-Herzegovina* <sup>2</sup> *Department of Psychiatry, University Clinical Center Tuzla, Tuzla, Bosnia-Herzegovina* <sup>3</sup> *School of Medicine, University of Tuzla, Tuzla, Bosnia-Herzegovina*

**Aims:** To estimate prevalence of Posttraumatic Stress Disorder (PTSD), depression, anxiety and substance misuse among university students after the 1992-1995 war in Bosnia-Herzegovina (BH).

**Methods:** The sample of 372 students from University of Tuzla (234 females) aged of 21.9±2.4 years, divided in medical (n=108) and philosophy students group (n=264), were evaluated for prevalence of PTSD, depression, anxiety and substance misuse. The Harvard Trauma Questionnaire, Beck Depression Inventory, and Sheehan Patient-Rated Anxiety Scale were used.

**Results:** In the sample PTSD prevalence was 20.7%; groups did not significantly differed (Chi-square=0.895; df=1; P=0.344). Girls presented significantly more PTSD (24.4%) than boys (14.2%) (Chi-square=5.424, df=1, P=0.020). The prevalence of depression and anxiety in the sample was 30.1% and 35.5% respectively, with no significant differences between groups (Chi-square=1.265; df=1; P=0.261; Chi-square=2.278; df=1; P=0.131, respectively). Gender had no influence on the prevalence of depression and anxiety.

Prevalence of cigarette smoking and alcohol drinking in whole sample was 35.2% and 41.4% respectively with no significant difference between groups. Significantly, more boys were drinking alcohol (57.3%) than girls (32.3%) (Chi-square=21.362; df=1; P<0.001). Prevalence of marijuana and heroin misuse in whole sample was

15.3% and 5.0% respectively; significantly, more boys misused marijuana (20.6%) than girls (12.2%) (Chi-square=4.525; df=1; P=0.033).

**Conclusions:** The prevalence of PTSD, depression, anxiety, and substance misuse between groups of medical and philosophy university students in BH seven years after the war quitted did not significantly differ. Girls presented significantly more PTSD prevalence than boys. Boys significantly more frequently were drinking alcohol and misused marijuana than girls.

## P185

PTSD among adolescents from three different geographical settings in Bosnia-Herzegovina after 1992-95 war

M. Hasanovic<sup>1,3</sup>, O. Sinanovic<sup>2,3</sup>, S. Pavlovic<sup>1</sup>. <sup>1</sup> *Department of Psychiatry, University Clinical Center Tuzla, Tuzla, Bosnia-Herzegovina* <sup>2</sup> *Department of Neurology, University Clinical Center Tuzla, Tuzla, Bosnia-Herzegovina* <sup>3</sup> *School of Medicine, University of Tuzla, Tuzla, Bosnia-Herzegovina*

**Aims:** To estimate the frequency, type, and severity of psychological trauma among displaced adolescents from three different municipalities with different exposure to war conditions after the 1992-1995 war in Bosnia-Herzegovina (BH).

**Methods:** The sample of 212 adolescents from northeast region of BH (102 girls) aged of 15.1±2.1 years, divided in three groups. Srebrenica group (n=69), Zvornik group (n=74) and Bijeljina group (n=69), were assessed for war traumatic events and presence of post-traumatic stress disorder (PTSD). The Harvard Trauma Questionnaire (HTQ) version for Bosnia and Herzegovina was used.

**Results:** Among tested adolescents 82.1% left homes, 77.8% of them were separated from family, 76.4% were forcedly expelled from homes, 50% lived in collective settlements. In the sample 11.6% of adolescents lost father: Srebrenica (43.5%), Zvornik (29.7%) and in Bijeljina group (5.8%)(Chi-Pearson=25.844, df=2, P<0.001). The PTSD prevalence was 61.3% in the sample; Srebrenica (73.9%), Zvornik (62.1%), and Bijeljina group (47.8%) (Chi-square=9.933; df=1; P=0.007). Among adolescents who lost father in the sample 82.1% presented PTSD: Srebrenica (80.0%), Zvornik (90.9%) and Bijeljina (50.0%)(Chi-square=16.769, df=2, P<0.001). In Srebrenica and Zvornik groups gender had no influence on PTSD prevalence but in Bijeljina group girls presented significantly more PTSD (59.6%) than boys (34.4%)(Chi-square=4.327, df=1, P=0.038).

**Conclusions:** The prevalence of PTSD was very frequent among Bosnian displaced adolescents 3.5 years after the war ended. Adolescents from Srebrenica had the highest rate of father loss and PTSD prevalence. Father loss influenced significantly on the prevalence of PTSD, while girls presented significantly more PTSD only in Bijeljina group.

## P186

Four years of day hospital treatment of psycho-traumatized persons in post-war Bosnia and Herzegovina

E. Avdibegovic<sup>1</sup>, M. Hasanovic<sup>1</sup>, Z. Selimbasic<sup>1</sup>, I. Pajevic<sup>1</sup>, O. Sinanovic<sup>2</sup>, A. Kopric<sup>3</sup>. <sup>1</sup> *Department of Psychiatry, University Clinical Center Tuzla, Tuzla, Bosnia and Herzegovina* <sup>2</sup> *Department of Neurology, University Clinical Center Tuzla, Tuzla, Bosnia and Herzegovina* <sup>3</sup> *Wolfson Medical School, University of Glasgow, Glasgow, United Kingdom*

During and after the 1992-1995 war in Bosnia-Herzegovina (BH), the population faced severe traumatic events, and the need for organized psychosocial help to traumatized persons was great. The Ministry of

Health, Federation of Bosnia and Herzegovina has established the network of psychosocial help in 1996. This paper to present organization of day hospital in Psychiatry Department Tuzla, for psychosocial support and treatment of persons, traumatized during and after the BH war. The authors described the implementation of the community-based Reform Program of Mental Health, the Ministry of Health, Federation of Bosnia and Herzegovina, and retrospective analysis of hospitalizations for psycho trauma in a 1999-2003 period of work carried out within the day hospital of the Psychiatry Department in Tuzla, Bosnia-Herzegovina. Considering the number of referred patients, their gender, age, and psychiatric disorder does this. Diagnostic estimation was carried out in accordance with DSM-IV classification, standardized PTSD interview, and Minnesota Multiphasic Personality Inventory (MMPI). During 1999-2003 period there were a total of 283 day-hospital patients aged 45.8±6.06 years, 118 (41.40%) of them were males. According to psychiatric disorders, the highest number of patients 143 (50.2%) suffered from Post Traumatic Stress Disorder (PTSD), 132 (46.3%) of patients were classed as having depressive disorders and 45 (15.8%) patients suffered from psychotic disorders. In addition it considers advantages and disadvantages of day hospital in psychiatric care of psychotraumatized persons in post war BH.

## P187

Prevention of mental health problems among future doctors: A controlled group intervention study among medical students in Bergen

M. Holm<sup>1</sup>, R. Tyssen<sup>2</sup>, B. Haver<sup>1</sup>. <sup>1</sup> *Department of Psychiatry, Institute of Clinical Medicine, University of Bergen, Bergen, Norway* <sup>2</sup> *Department of Behavioural Sciences, Institute of Basic Medicine, University of Oslo, Oslo, Norway*

**Background:** Stress and mental health problems is common among medical students, but we lack studies of intervention programmes during medical school.

**Design and Methods:** The students participated in one of two group session programmes during their third year at medical school. One option was a self-development programme delivered by trained group therapists. Alternatively the students chose a programme focusing on themes of special relevance to doctors. The format was one and a half hours' group sessions, once weekly, altogether 12 times. The baseline data were gathered before the intervention (T1). We studied the effect 3 months post intervention (T2), in this first follow-up paper. One class (N= 128) of medical students were given the group intervention programmes. The next year class (comparison group) received no intervention (N= 152). The main outcome of this study was Perceived Medical School Stress (PMSS), which has been linked to anxiety and depression, as well as need for treatment. We used multilevel linear model (repeated measures) to test for differences over time.

**Results:** Both the intervention and the comparison groups showed a decline in PMSS from T1 to T2. There was an interaction between time and the intervention, and this indicates a significant effect (P=0.01) of the intervention. We found this effect due to the participation in the self-development groups (P=0.009). All effects were controlled for age and gender.

**Implications:** The self-development groups have a beneficial effect on stress among the students in a three months follow-up.

## P188

Ethnotherapeutic approach in psychosocial assistance to adolescents in refugee camps: The experience of Chechnya