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SUICIDE DURING YEARS OF STRESS – SERBIAN EXPERIENCE

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Abstract: Suicide is a global, ubiquitous phenomenon and one of the major causes of death at all ages and wide range of possible risk factors. Suicide and stress are intimately related, ranging from everyday life stressors, through global socioeconomic crises and economical disadvantages to major stressors such as natural or man made disasters. There is a strong association between suicidality and mental disorders, particularly depression and posttraumatic stress disorder (PTSD). Physicians should be alert to potential suicidal ideation when the history reveals risk factors for suicide, such as depression, PTSD, other psychiatric disorder, prior attempted suicide, recent divorce, separation, unemployment and bereavement. Dealing with consequences of stress, particularly suicidality, is a challenge to mental health professionals whose work during the years of stress has to be outside of their traditional roles. It is necessary to develop preventive strategies on high-risk population groups.

Key words: *suicide, stress, posttraumatic stress disorder, economic crisis*

Introduction

Suicide is a global, ubiquitous phenomenon throughout various historical epochs and societal groupings. This is, also, an anthropological-cultural phenomenon determined by biopsychosocial factors. Suicide is a huge public health problem, and one of the leading causes of premature mortality in the world. World Health Organization estimates that over 800,000 people die due to suicide every year. In addition, every 40 seconds a suicide takes place somewhere in the world [1]. The suicide rate is estimated as 11.6 per 100.000 inhabitants worldwide [2]. Although it is more common amongst older age groups, results from the recent studies reveal an increased suicide rate among younger people and as the second most common cause of death among young people worldwide. According to the United Nations Health Agency, more than 70% of suicides are among people from poor or middle-income countries [1].

The World Health Organization proposed an ecological model of suicide, whereby suicide results from a complex interplay of individual, interpersonal, social, cultural and environmental factors [3]. Societal factors such as economic and social crises, as well as, economic or social inequality, play an important role in suicidal risk.

A wide range of possible risks, protective and correlated factors for suicide were assessed. There is no single factor accepted as a universal cause of suicide. However, depression is a common condition among those who commit suicide, as well as some other mental disorders. Other risk factors are pain, stress, grief, trauma, catastrophic injury, financial loss, terrorism (especially related to religion suicide bombing and extreme nationalism) [4-6].

Trends of suicide in Serbia from 1950 to 2013

Serbia is located on the Balkan peninsula, which for centuries was crossroad between Central and Southern Europe, the East and the West [7]. The area of the Republic of Serbia covers 88.361 km^2, and its population according to the census in 2011 is 7.164,132. The country was exposed to prolonged stress since the beginning of the 1990s which caused a steady rise in mental and behavioural disorders.

According to Statistical Office of the Republic of Serbia, the total number of recorded suicide cases between 1950 and 2013 was 76.391.

Despite pledges to improve mental health care in the world as well as prevention efforts, during the last 50 years suicide rates have increased globally by 60%. A similar trend was found in Serbia as well. Overall suicide rates showed gradual, but irregular increase from 1950 to 2013 (11.2 vs. 16.7 per 100.000, respectively).

The number of suicides in the Serbian population almost doubled from 753 to 1.198 in the last 60 years, with a peak in 1992 (i.e. 1.638). Another peak occurred in 1999, during and after the NATO bombing (1.572).

During the reporting period, there were 52.305 (68.47%) male and 24.086 (31.53%) female suicides. From 1999 to 2002, the male suicide rates reached a peak of nearly 29 per 100.000 while the highest rates among females were in the years 1999-2000 (12.1 per 100.000) (Figure 1).

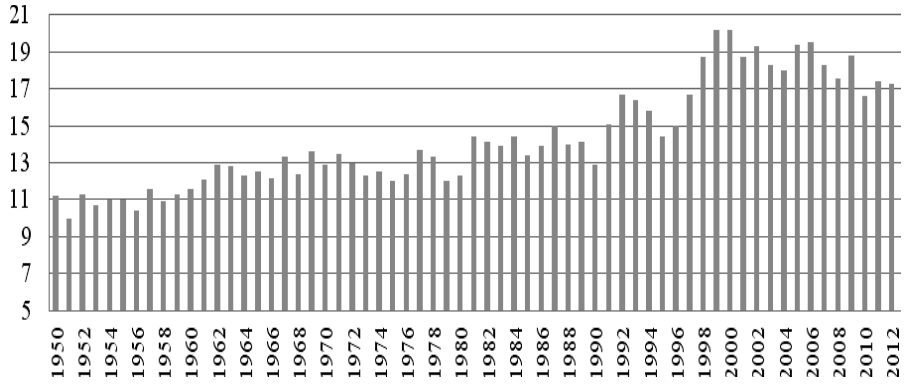

Figure 1. Suicide rate per year

Suicide during traumatic times

Major social changes and catastrophic events cause many factors that may have association with suicide. According to Knox [8], traumatic experiences can have deep impacts on mental health and may results in suicidal behaviour years and decades following the traumatic exposure. However, some authors have shown that huge catastrophic events, such as natural disaster or war, are associated with reduction in local suicide rates [9,10]. The grief and social disruption brought about by flood or earthquake is frequently accompanied by a sense of purpose, belonging and communal unity in the face of the 'common enemy' represented by the disaster. These human reactions appear to be also evident at times of war, when members of a community or society perceive themselves to be threatened and collectively charged with a shared purpose to face their common enemy [11-14].

However, some authors reported an increase in suicide rates at times of war [13]. Other studies have shown that, while suicide rates may rise, this is not necessarily a direct consequence of war per se, stating that relationship between war and suicide is a complex phenomenon mediated by other factors [15].

Serbian society was exposed to multiple and repeated stressful experiences during last three decades, man and nature caused. During early 90's a breakdown of former Yugoslavia began, with wars and exile, United Nations sanctions, which lasted 3.5 years, followed by 11 weeks of NATO bombing in 1999. The country has been facing a social transition, with economic difficulties, high unemployment rate, and political uncertainties.

Our data have shown that suicide rates in Serbia, during years of war at the area of former Yugoslavia, between 1991 and 2001, were lower, which is in accordance with other authors [11, 13, 14]. The lowest suicide rate was in 1995 and 1996, with the rate of 14.4 and 15.0 per 100.000, respectively. Furthermore, the lowest suicide rate was in August 1995 when Serbian population faced a humanitarian crisis with mass-exodus of refugees Croatia (around 250.000).

In contrast to that in the year 1999 in which there was bombardment of Serbia, the suicide increased significantly – 20.2 per 100.000, particularly in months after the bombing. During 2003 and 2004 suicide rates showed a pre-war level, with a small decrease in the following years, with the lowest level in 2008 (Figure 2).

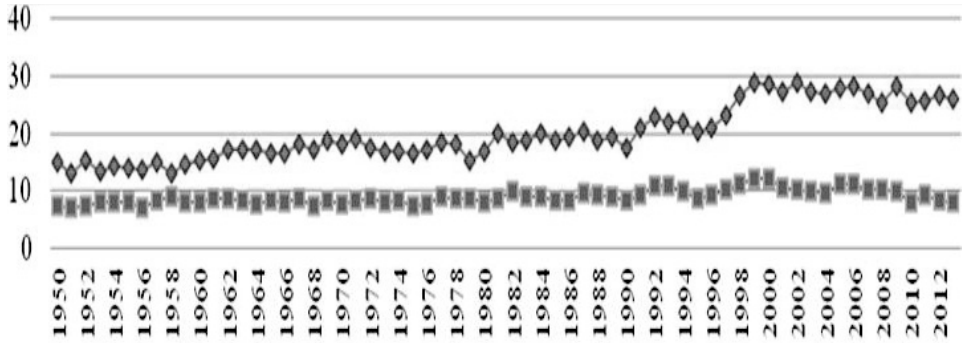

Figure 2. Suicide rate per year according to gender

Posttraumatic stress disorder and suicide

The aetiological pathway between traumatic experience and suicidality is still unclear. Most authors suggest that a psychological trauma contributes to development of mental disorders such as depression, posttraumatic stress disorder and substance abuse, which may in turn increase suicidality.

A significant association between PTSD and suicidal ideation, attempts and completions has been shown [16,17]. Some authors suggest that suicide risk is higher among those who experienced trauma due to the symptoms of PTSD [18,19], while others state that suicide risk is higher in these individuals because of related psychiatric conditions, more than because of PTSD symptomatology [20]. According to data of the National Comorbidity Survey, the PTSD without any of six anxiety diagnoses was significantly associated with suicidal ideation or attempts [21]. This study also revealed an association between suicidal behaviours, mood disorders and antisocial personality disorder and pointed to a robust relationship between PTSD and suicide after controlling for comorbid disorders. The Canadian Community Health Survey has also shown that persons with PTSD were at higher risk for

suicide attempts after controlling for physical disturbances and other mental disorders [22].

A multicentric, international epidemiological study "CONNECT" (supported by the EU within FP6) [23] carried out at the region of former Yugoslavia seven years after traumatic experiences including 640 subjects in Serbia, showed that the current PTSD prevalence rate among general adult Serbian population was 18.8% and lifetime PTSD prevalence 32.3% [24]. The suicidality in the Serbian sample was 13%, while comorbidity of PTSD and suicidality was 35%, which is accordance with others studies [17,25].

Local and global economic crisis

It is well known that social crises have significant impact on suicide rates. The highest inflation in the former Yugoslavia (i.e. Serbia & Montenegro) occurred during the 1992 and 1993 period. In the early '90 the unemployment increased with the peak of income decrease in 1993, which in addition to other aspects of economic and political crisis, were probably associated with an increased suicide rates. During that period the suicide rates were the highest since 1950, reaching nearly 16.4/100.000 and 15.8/100.000 during 1992 and 1993, respectively. Petrovic et al. (2001) reported that the peak of suicide rates in the southern-eastern part of Serbia occurred during the time of greatest economic depression (hyperinflation) in 1993, as well as during 1996 and 1999 [26].

During the post-war period at the area of former Yugoslavia, socio-economic factors were prevailing in generating high suicide rate - average rate for period of 2000-2013 was 18.29/100.000 [27].

In 2008 a global economic crisis affected Europe as well as the rest of the world. The Lopez-Ibor Foundation launched an initiative to study the possible impact of the economic crisis on European suicide rates [28]. The results of that study, carried out in 29 European countries, have shown that there is a relationship between suicide rates and the economic environment but have not confirmed a clear causal relationship between the current economic crisis and increase of suicide rates. The study has also shown that suicide rates are strongly correlated with gross domestic product (GDP) per capita and its changes, and to a lesser extent with the unemployment. Interestingly, Serbia and some other European countries (i.e. Greece, Spain, Portugal, Montenegro and Norway), showed a weak correlation of suicide rates with economic indices.

Conclusion

Suicide is a complex dynamical phenomenon, and one of the most important mental health indicators. Serbian suicide rate increased over the last decade of the XX century. According to the recent WHO data, Serbia is amongst the ten countries with the highest female suicide rates. During the past decades, our society was exposed to multiple and repeated stressfully

experiences, man and nature caused. The current global financial and economic crisis, superimposed on a difficult economic situation in the country may have negative effect on mental health of the population, including the suicide. Therefore, there is a need for national preventive programmes which should be in line with the new European WHO Mental Health Action Plan [29]. In the recent past, we carried out a one year pilot program for prevention of suicide in adolescents in collaboration with the Ministry of Health [30].

Declaration of interest

The authors report no conflicts of interest.

SUICID U GODINAMA STRESA – SRPSKO ISKUSTVO

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Apstrakt: Suicid je globalan, sveprisutan fenomen i jedan od glavnih uzroka smrti u svim uzrastima, sa širokim opsegom potencijalnih faktora rizika. Suicid i stres tesno su povezani, počevši od svakodnevnih životnih stresora, preko globalne socioekonomske krize i ekonomskih neprilika, do velikih stresora kao što su prirodne ili ljudskim faktorom izazvane katastrofe. Postoji snažna povezanost između suicidalnosti i mentalnih poremećaja, posebno depresije i posttraumatskog stresnog poremećaja (PTSP). Lekari bi trebalo da budu oprezni sa potencijalnom suicidalnom ideacijom kada istorija bolesti otkriva faktore rizika za suicid, kao što su depresija, PTSP, drugi psihijatrijski poremećaji, prethodni pokušaj suicida, nedavni razvod braka, razdvajanje, nezaposlenost i ožalošćenost. Nošenje sa posledicama stresa, posebno sa suicidalnošću, izazov je za psihijatre čiji je rad u godinama stresa izlazi iz okvira njihovih tradicionalnih uloga. Neophodno je razviti program prevencije suicida kao i preventivne strategije za visoko rizične populacione grupe.

Ključne reči: *suicid, stres, posttraumaski stresni poremećaj, ekonomska kriza*

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