

# Understanding and Describing PTSD in Kosovo: A Systematic Evidence-Based Review

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## Abstract

Mental health problems related to the psychological trauma of war still represent a public health concern in postwar Kosovo. Despite the universal character of exposure to trauma, there are suggestions that the manifestation posttraumatic stress disorder (PTSD) or related psychosocial factors might vary across cultures. The aim of the present article was to provide a critical overview of research on PTSD in the specific sociocultural context of Kosovo by examining prevalence rates, as well as related demographic and psychosocial variables. For this purpose, 51 studies were evaluated. Results showed that, even 10 years postwar prevalence rates for PTSD are still high among civilians exposed to trauma, refugees, and veterans. As regards psychiatric and psychological constructs correlating with PTSD, studies suggested the following: anxiety, depression, suicidal ideation, anger, and revenge thoughts. Moreover, socioeconomic factors and social support were identified as highly influential on quality of life of individuals with PTSD. Nonetheless the studies considered for review had numerous methodological problems such as sample size, self-selection, nonrandomized process, and lack of control groups, findings of existing studies still need to be carefully considered and future research is necessary.

## Keywords

PTSD, postwar, Kosovo, review, trauma

## Introduction

The essential feature of posttraumatic stress disorder (PTSD) is the development of characteristic symptoms following exposure to one or more traumatic events (American Psychiatric Association [APA], 2013). PTSD occurs in individuals who have been exposed to actual or threatened death, serious physical injury, or sexual violence. Nonetheless, this diagnosis is rather controversial in existing literature especially as regards the specific criteria considered, or social and cultural elements involved. Even so, exposure to traumatic events is ubiquitous, and consequently PTSD has been found to emerge across a number of cultures (Grubaugh, Zinzow, Paul, Egede, & Frueh, 2011; Norris et al., 2002). Despite the universal nature of trauma exposure, there is substantial cross-cultural variation in the manifestation of PTSD (Hinton & Lewis-Fernández, 2011).

The aim of the present article was to provide a critical overview of PTSD in the specific sociocultural context of Kosovo. Our main objectives were the following:

1. To collect results from existing research in the effort of building a comprehensive picture of PTSD prevalence, and factors related to/explaining it in postwar Kosovo,

2. To search for/conclude on any differences between Kosovo and other countries, and
3. To investigate the impact of trauma/PTSD on the overall mental health of the population and detect intervention efforts.

Kosovo is a small European country in South-Eastern Europe, with a population of 1.9 million people (90% Albanian). After roughly a decade under the Serbian regime, that culminated with the Kosovo war (end 1990s), nearly one million people were displaced from their homes. More than 60,000 houses became uninhabitable, more than 18,000 people were killed (12,000 of them civilians) and more than 3,900 individuals were recorded as missing. Records show death rates as high as 25 to 35 per 10,000 inhabitants, the majority being Kosovo Albanians. These figures are much higher as compared with other war fronts: for example, in Cambodia, Thailand, Ethiopia, Sudan, and Rwanda (Spiegel & Salama,

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2000). According to Agovino (1999), Kosovo Albanians were “victims of the worst ethnic cleansing in Europe since World War II” (p. 1701). In total, about 90% of the local population was uprooted. Moreover, rape, torture, looting, pillaging, and extortion were very common (Independent International Commission on Kosovo, 2000). Quite expectedly, 64.9% of the population reported traumatic experiences during the war, resulting in 200,000 to 400,000 traumatized individuals in addition to the baseline figure of 200,000 to 300,000 individuals with mental disorders in the general population (Gierlichs, 2008).

Although Kosovo became independent in 2008, economic stagnation, widespread poverty, high unemployment rates, and poor quality of life continue to burden the country (United Nations Development Program [UNDP], 2010). Research studies suggest that PTSD prevalence rates in less economically developed and non-Western countries tend to be higher as compared with other countries (Keane, Marshall, & Taft, 2006). In addition, a persistently high prevalence of PTSD disorder has been found in postconflict countries, which were exposed to torture or forced migration (Cardozo, Vergara, Agani, & Gotway, 2000; de Jong et al., 2001; Mollica et al., 2001; Somasundaram & Sivayokan, 1994).

Killings of civilians in Bosnia and Kosovo have caused severe trauma and a high prevalence of PTSD and other anxiety disorders (Spiegel & Salama, 2000). As a consequence of the Kosovo war, PTSD, depression, and emotional distress still remained high within the population. More specifically, in 2006, prevalence rates for PTSD symptoms were 22%, those for depression 41.8% (The Hopkins Symptom Checklist Depression Scale [HSCL-20] score), and for emotional distress up to 43.1% (Wenzel, Agani, Rushiti, Abdullahi, & Maxhuni, 2006). More recently, in 2013, prevalence rates of PTSD were still as high as 17.9% (Fanaj et al., 2014). These findings suggest that PTSD constitutes a major public health issue for Kosovo, and also highlight the importance of understanding its actual impact, as well as suggesting intervention modalities. Nonetheless, it should be mentioned that official data on the prevalence of PTSD in the general population or clinical contexts are still missing, and suggestions from existing research are quite limited. In this context, a systematic literature review on PTSD in Kosovo would provide an important first step into understanding the existing situation and providing suggestions for future steps in terms of research as well as intervention programs.

## Method

Published articles, dissertations, books, and abstracts were retrieved from the Internet (keywords: PTSD and Kosovo).

The inclusive criteria for studies included the following in hierarchical order:

- Papers published in international journals or abstracts
- Book chapter

- Doctoral dissertations and master’s theses
- Reports published
- Presentations in international conferences, online abstracts
- Presentations in international conferences in Kosovo

Published studies and published abstracts were found in PubMed and ScienceDirect. Internet search in PubMed database with keywords “PTSD, Kosovo” retrieved 54 articles. A total of 130 articles were retrieved from the ScienceDirect database. In addition, there were only four abstracts from international congresses (online proceedings), which were considered for review. Other search engines include Google and Google Scholar; ResearchGate was also consulted, and in three cases, the respective authors sent their full publications.

## Results

A classical theoretical approach was used to analyze relevant empirical research on the topic (Montero & Leon, 2007). This approach, according to Montero and Leon (2007), meant that the review does not provide any original data from the authors or any statistical reanalysis of published data; rather it provides a summary, classification, and critical analysis of existing research studies.

Fifty-one studies which met the selection criteria were analyzed: (a) one book chapter, (b) 41 journal articles (in the field of psychiatry or trauma research), (c) one dissertation thesis, (d) two papers part of dissertation theses, (e) one report, (f) one master’s thesis, (g) three online abstracts, and (h) one conference presentation. All studies were cross-sectional apart from two, which were longitudinal studies.

## Study Samples

Four studies were conducted in the general population, three with representative samples from Kosovo and one only in Drenica region. Another category of studies included research conducted with Kosovo refugees abroad, and included the following countries: Albania (1), Canada (1), the United States (1), the United Kingdom (1), Sweden (2), Denmark (1), and Germany (1). In two cases, comparative research was conducted, for example, Kosovo versus Switzerland and Kosovo versus Sweden. Also, only one study has exclusively considered the Serbian population in Kosovo and another study has considered both Albanian and Serbian minorities in Kosovo. Studies have investigated war survivors and people exposed to traumatic events including civilians, refugees, veterans of war, widows, ex-prisoners, and emergency patients. Sample sizes varied from 56 to 1,399 individuals. Authors have acknowledged problems with sampling representation of the population, inclusion criteria, self-selection, nonrandomized procedure, lack of control groups, and lack of clinical samples. These methodological limitations are explicable in terms of limited research funds

and resources as well as inadequate research skills of the investigators involved. Indeed, in the context of great socio-economic turmoil in postwar Kosovo, posttraumatic stress and particularly treatment were quite neglected.

### *Time Distribution of Studies*

The majority of studies have been conducted in 1999 (10 studies); six studies were conducted in 2006 and 2007, five in 2005, four in 2000 and 2001, three in 2006 and 2009. No studies were conducted in years 2002-2004 and 2012. The mean number of research studies per year was 3.69. Thus, research interest in PTSD was quite high just after the end of Kosovo war (year 1999) while falling sharply in the following years. For instance, just 1 year later, in 2000, only four studies were conducted (as compared with 10 in 1999). This decline of research interest in PTSD might be explained through lack of research funding on the topic probably occurring because of reduction of interests in topic or lack of funding as wartime remains far away.

### *Types of Instruments*

PTSD has been measured with 10 types of instruments; some studies have used two to three instruments within the same research. The most frequently used instrument was the Harvard Trauma Questionnaire (23 cases), followed by the Mini International Neuropsychiatric Interview (MINI; 11 cases). Also in five cases, PTSD diagnostic criteria of *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM-IV*; APA, 1994) were used, while four other studies used Structured Clinical Interviews and three studies, the Posttraumatic Diagnostic Scale. Other instruments used only in single studies included the Danish Red Cross Trauma and Symptom Form for children, the Post Traumatic Stress Disorder Checklist–Military version, the Posttraumatic Stress Reaction Index questionnaires, The Interpretations of PTSD index, and the University of California at Los Angeles (UCLA) Posttraumatic Diagnostic Scale. Almost all studies have reported internal consistency acceptable to good for instruments used. Despite the fact that studies used well-known instruments and reported on translation–back translation methods, they all lacked cultural validation of measuring instruments, except the Harvard Trauma Questionnaire traumatic events section specifically adapted for the Kosovo situation in Cardozo et al. (2000). Cultural specific conceptual meanings of the terminology used in the instruments might have actually affected the results. Moreover, culturally relevant traumatic events might have been left out because of lack of cultural awareness. An example is brought through the study of Eytan et al. (2004) where authors stated the need to add a new traumatic event to the Harvard Trauma list “the impossibility of holding a culturally appropriate ceremony after the death of a relative or friend.” The change was based on clinical experience with refugees, and clearly reflects the

cultural relevance of death ceremonies in the Kosovo context. Moreover, in two studies, instruments were used in foreign language, without measuring the level of proficiency of Kosovo emigrants. In one case, the instruments were administered by migration board assistants, a procedural detail which might have affected both the administration process and the actual result (e.g., participants faking symptoms to get asylum). Moreover, illiteracy or limited education of participants might have affected the proper understanding of some of the instruments; this aspect is very important to consider as most instruments were self-reports and not clinical interviews.

### *Aims of Studies*

In terms of specific aims, studies might be categorized as follows: (a) the investigation of prevalence rates of psychological disorders in the postwar period (studies among the general population, refugees, civilians experiencing trauma, etc.), (b) the identification of relationships between several psychological constructs and PTSD in specific target groups (war veterans, widows, ex-refugees, ex-prisoners, etc.), (c) cross-country or cross-cultural comparisons (e.g., between Balkan countries), and (d) the investigation of health care service use. Studies reporting on prevalence rates should be most carefully considered, particularly because of the sampling shortcomings as discussed above. On the contrary, studies reporting relationships between PTSD and various psychological constructs within specific target groups provide important findings (e.g., for anxiety, depression, etc.).

### *Prevalence Rates for PTSD*

Prevalence rates differed depending on the sample characteristics. Studies among the general population found prevalence rates ranging from 17% to 25% (Cardozo, Kaiser, Gotway, & Agani, 2003; Cardozo et al., 2000; Fanaj et al., 2014; Wenzel et al., 2006). Studies with refugees found prevalence rates of 22% in Canada (Redwood-Campbell et al., 2003), while in Sweden rates varied from 37% to 80% (Roth, 2006). As regards civilians exposed to trauma, prevalence rates ranged from 12% (Eytan & Gex-Fabry, 2011) to 33% (Morina, Stangier, & Risch, 2008). Prevalence rates for emergency patients were found to be 14% (Ahern et al., 2004), while for prisoners 30% (Çesko & Devaja, 2004). Among veterans of war, prevalence rates were up to 11% in 2008 (Shahini & Shala, 2016) but 53% by 2014 (Halimi & Halimi, 2015; Halimi, Dragoti, Halimi, Sylejmani-Hulaj, & Jashari-Ramadani, 2015). As regards children and adolescents, prevalence rates in 1999 were found to be 3% in Denmark (Abdalla & Elklit, 2001) but up to 66% to 96% among adolescents in Suhareka (Gordon, Staples, Blyta, & Bytyqi, 2004). Finally, prevalence rates among widows ranged from 34% (Morina, Reschke, et al., 2011) up to 82% (Morina & Emmelkamp, 2012b). Although prevalence data

should be carefully considered because of the several methodological shortcomings in sampling, it is worth noting two main findings. First, in several cases, rates of PTSD have been reported as increasing with time, a result which might be explained in terms of improved screening or diagnosis of the disorder. Second, specific samples including war veterans, adolescents, and widows represent important targets for intervention.

### *Age Patterns in PTSD*

Three studies have found more frequent PTSD among older age groups—two cases among civilians exposed to trauma and one case among ex-refugees (Eytan et al., 2004; Eytan, Guthmiller, Durieux, Loutan, & Gex-Fabry, 2011; Kashdan, Morina, & Priebe, 2009). Eytan et al. (2011) reported that such findings were in line with existing research from other countries. Another study among refugees in the United States did not find any relationships between age and the diagnosis or severity of PTSD (Ai, Peterson, & Ubelhor, 2002). The rest of studies do not provide evidence on age. Thus, evidence on age patterns of PTSD is quite scarce to provide any solid conclusions in the specific context, and further research is required.

### *Gender Patterns in PTSD*

Only nine studies have reported findings on gender. Five studies have reported significantly higher rates of PTSD among females (Ai et al., 2002; Cardozo et al., 2000; Eytan et al., 2004; Eytan et al., 2011; Roth, Ekblad, & Ågren, 2006). Three other studies have reported no gender differences (Morina, 2015; Morina, Rudari, et al., 2010; Turner, Bowie, Dunn, Shapo, & Yule, 2003). Yet another study reported lack of significant gender differences in a sample of emergency patients (Ahern et al., 2004). All the above findings with no gender differences are clearly contrasting existing epidemiological research (Morina et al., 2016), but has been shown in samples of military personnel (Norris & Slone, 2007), and need to be carefully considered as lack of differences might be related to differential trauma exposure during the war (Morina et al., 2016); methodological aspects including sample structure and also measuring instruments.

### *Ethnicity Patterns of PTSD*

PTSD has been investigated among Serbians of Kosovo only in two papers. Nelson et al. (2004) conducted a study with a Serbian sample within an emergency center in a Serbian enclave in Kosovo. Findings showed that PTSD rates were significantly higher as compared with Belgrade (Serbia capital), 23.81% versus 4.19%. In another study (Wenzel et al., 2006), prevalence rate of PTSD among Serbians living in Kosovo was 18% as compared with 22% among Albanians. This study also reported the prevalence of PTSD among

other ethnic groups in Kosovo, as being as high as 17.4%. Hence, studies suggest that PTSD is also present among other ethnic groups (apart from Albanians) living in Kosovo, although rates seem to be lower as compared with Albanians.

### *Trauma*

Evidence on the type, severity, or number of traumatic events were provided by the majority of research studies; however, the use of different measuring instruments partially explains the variation in results. Generally results show that “there was a high prevalence of traumatic events among the Kosovo Albanians, and large numbers appear to have experienced multiple traumas” (Cardozo et al., 2000, p. 575) and results are consistent with those of other studies (Cardozo et al., 2000). The types and prevalence of traumatic events reported were similar to other studies conducted in postwar settings (Ahern et al., 2004). The mean number of traumatic events experienced ranged from 9.65 to 30 events. More than a quarter of the sample to just over a half (28%-53%) experienced torture.

### *Somatic Health*

Eytan et al. (2004) and Eytan et al. (2011) reported that persistent PTSD more than 2 years postwar was associated with poorer physical health. In addition, Wang et al. (2012) found relationships between PTSD, the number of pain locations, and pain score. Along these lines, Morina (2015) found that symptoms of PTSD and somatic symptoms were strongly associated; the highest levels of somatic distress were reported by widowed mothers (Morina, & Emmelkamp, 2012a, 2012b). Morina, Ford, Risch, Morina, and Stangier (2010) also found that somatic distress was more prevalent (13%) among war-exposed civilians than the general populations (1%-4%).

### *Other Psychiatric/Psychological Variables*

Studies on PTSD have also analyzed other psychological, social, or health-related variables. In some studies, these variables (rather than PTSD) have been actually the main focus of the study.

Mental health represents one of the most broadly investigated variables, and has been studied in the context of anxiety, depression, affective disorders, as well as their relationship with PTSD. Eytan et al. (2004) reported that persistent PTSD for longer than 2 years postwar was associated with lower mental health status. PTSD was associated with greater global psychological distress among Albanian civilian survivors of the Kosovo war (Kashdan et al., 2009); the most severe mental health problems were found among widowed mothers (Morina et al., 2012).

*Quality of life.* In Albanian civilian survivors of the Kosovo war, PTSD was associated with lower quality of life

(Kashdan et al., 2009). Morina, Reschke, and Hofmann (2011) reported that civilian war survivors who had lost first-degree family members due to war-related violence had lower quality of life than nonbereaved civilian war survivors. Quality of life was significantly lower when PTSD was comorbid with depression (Morina et al., 2013). Fanaj et al. (2014) also found that PTSD was significantly negatively related with quality of life and the presence of PTSD predicted low quality of life even when controlling for depression.

*Depression* was one of the most frequently investigated variables in these studies. Priebe et al. (2010) reported that in terms of observed prevalence of current mental disorders, Kosovo ranked much higher in depressive disorders as compared with Bosnia, Croatia, Serbia, and Macedonia. Depression has been reported by 38% of bereaved individuals (Morina, Rudari, Bleichhardt, & Prigerson, 2010), and according to Morina, Reschke, and Hofmann (2011), civilian war survivors who lost first-degree family members due to war-related violence reported significantly more major depressive episodes than nonbereaved civilian war survivors. Major depressive disorder among Albanian civilian survivors of the Kosovo war was associated with greater experiential avoidance and global psychological distress (Kashdan et al., 2009). Zajmi-Duraku (2012) reported that PTSD correlated positively with depression symptoms. According to Schick, Morina, Klaghofer, Schnyder, and Mueller (2013), 11 years after the Kosovo war, the presence of depressive symptoms among civilian adults (57%/37%) and their children (20%) was still substantial and in line with earlier studies conducted in the postwar Balkans (Kashdan et al., 2009; Morina & Ford, 2008; Priebe et al., 2010). Morina et al. (2013) reported that co-occurring major depressive episode and PTSD among survivors of war were associated with higher suicide risk, than either condition alone. Fanaj et al. (2014) found that PTSD was significantly positively correlated with depression. Eytan, Munyandamutsa, Nkubamugisha, and Gex-Fabry (2014) suggested a long-lasting association between depressive and posttraumatic stress symptoms because participants with PTSD in 2001 showed more frequent major depressive disorder in 2007 (50.8%), than those without PTSD (32.0%). Eytan et al. (2014) emphasized that PTSD and/or major depressive episode in postconflict settings are long-lasting conditions associated with poor perceptions of physical and mental health. However, comorbidity rates were much lower in Kosovo as compared with other countries such as Rwanda (9% vs. 18%).

*Suicidal risk.* Wang et al. (2012) found that suicidal ideation was extremely high and was related to PTSD in a sample of 125 victims of torture and massive violence. Similarly, Morina et al. (2013) also reported that co-occurring major depressive episode and PTSD among survivors of war correlated with higher suicide risk than either condition alone.

Along these lines, Halimi et al. (2015) reported that suicidal ideation were reported by 21% of the veterans diagnosed with PTSD and comorbid major depressive disorder. Socio-economic factors contributed on the worsening of suicidal ideations and suicidal behavior. Nonetheless, Traue, Jerg-Bretzke, and Lindert (2009) highlighted the importance of considering culturally shaped symptoms, because very low values were found for the item "suicidal ideas" in his study.

*Anxiety* has been investigated in terms of anxiety disorders (social anxiety disorder and obsessive-compulsive disorder) or other theoretical constructs such as experiential avoidance and interpersonal sensitivity. Morina (2007) reported that experiential avoidance was positively correlated with posttraumatic distress. In Albanian civilian survivors of the Kosovo war, social anxiety disorder was associated with greater experiential avoidance and global psychological distress (Kashdan et al., 2009). Priebe et al. (2010) reported that based on observed prevalence of current mental disorders, Kosovo had a greater prevalence of anxiety disorders as compared with Croatia, Serbia, and Macedonia. However, there were no differences with Bosnia despite the later having higher levels of PTSD than Kosovo. Morina et al. (2011) reported that civilian war survivors who had lost first-degree family members due to war-related violence suffered more from general anxiety disorders than nonbereaved civilian war survivors. Zajmi-Duraku (2012) reported positive associations between PTSD and anxiety symptoms. According to Schick et al. (2013), 11 years after the Kosovo war, the presence of anxiety symptoms among civilian adults was still substantial (61% among mothers, 41% among fathers, and 51% in children). These findings are in line with earlier studies conducted in the postwar Balkans (Kashdan et al., 2009; Morina & Ford, 2008; Priebe et al., 2010). Finally, Morina (2015) also found a strong association between obsessive-compulsive disorders and PTSD symptoms. To summarize, anxiety disorders in Kosovo are highly prevalent even years after the Kosovo war and represent an important public health issue, which needs to be investigated further.

*Hatred/vengeance/anger/aggression.* According to Cardozo et al. (2000), 89% of men and 90% of women reported having strong feelings of hatred toward Serbians. Also, 51% of men and 43% of women reported strong feelings of revenge and 44% of men and 33% of women stated that they would act on these feelings. Wenzel et al. (2006) reported that PTSD was largely associated with feelings of hatred and revenge. Wang et al. (2012) also reported high levels of persistent anger and hatred. Halimi et al. (2015) reported the existence of thoughts and fantasies of revenge (43% of the veterans) whereas 43% of them manifested feelings of hatred. Also, 85% of the participants reporting on fantasies of revenge were confident to act based on their beliefs (Halimi et al., 2015). Indeed, one study reported a significant correlation between the diagnosis and severity of PTSD symptoms and aggression, which is

in line with findings from earlier studies among Vietnam veterans (Roth, Ekblad, & Prochazka, 2009). It is important to note that these data were reported 15 years after the end of Kosovo war, suggesting the need for psychological intervention and support.

*Social support and other socioeconomic factors.* Ahern et al. (2004) suggested social support as one of the most important factors to consider when examining posttraumatic stress symptoms. Eytan et al. (2004) reported that persistent PTSD for more than 2 years after the war was associated with lower economic status. Halimi et al. (2015) found that socioeconomic factors contributed to the deterioration of major depression symptoms, PTSD, and other comorbid disorders, with a direct impact on suicidal ideations and suicidal behavior among war veterans. In the specific context of Kosovo, socioeconomic variables represent a particularly important factor, although research on this aspect has been quite scarce.

### *Psychotherapeutic Treatment*

Only two studies examining psychotherapeutic treatment outcomes were found. The first study reported that cognitive-behavioral therapy produced no change in posttraumatic stress symptoms or psychological well-being, but improved symptoms of depression, overall psychiatric distress, and quality of life (Morina, Rushiti, Salihu, & Ford, 2010). In the second study, the practice of mind-body techniques significantly decreased symptoms of posttraumatic stress in adolescents (Gordon et al., 2004). The lack of studies on treatment is actually an indicator of the specific Kosovo context, where psychological intervention is still not widely practiced.

### **Discussion**

The present article reviewed research studies on PTSD prevalence, demographic patterns, and psychological/psychiatric correlates of the disorder in Kosovo. Results suggested that more than a decade after the end of the Kosovo war, the presence of posttraumatic stress, depression, somatic symptoms, and pain in the civilian population is still substantial. PTSD, depression, and emotional distress (anxiety) seem to have become chronic in a considerable part of the general population, and PTSD prevalence rates seem to be quite high in particular population fragments such as refugees, veterans rates are in all cases significantly higher as compared with similar studies from other postwar countries such as Vietnam, Algeria, the United States, Croatia, and so on. Although prevalence rates should be carefully considered especially because of methodological shortcomings of studies, they clearly indicate the importance of considering PTSD as an important public health issue in future research and intervention programs in Kosovo. This claim is further supported by studies investigating the psychiatric and psychological correlates of PTSD, including poorer physical and mental

health, depression, anxiety, thoughts of revenge, anger, and hatred. Suicidal risk has also been found to be relatively high among individuals with PTSD; moreover, socioeconomic variables and social support were found to be highly influential on the quality of life of participants.

These findings clearly suggest the need for future mental health interventions; this aspect is even more important considering evidence that the quality of the service provided at present is not satisfactory.

For instance, recent research with survivors of war seeking mental health treatment in Kosovo, has shown that utilization rate of mental health services in the country was not associated with improved levels of mental health (Morina, Rushiti, et al., 2010). Therefore, future research assessing quality of mental health care services should be conducted, particularly to determine barriers and needs (e.g., training of professionals, screening, assessment instruments, etc.). Finally, research informed interventions and treatment programs taking into account specific psychosocial factors also seem to be totally absent; this aspect is particularly relevant considering the peculiarities of the sociocultural context in Kosovo (non-Western, collectivistic culture, unacceptable to show trauma suffering or that being psychologically ill might be socially unacceptable).

Conclusions from the present review should be carefully considered, especially because of the quality of the studies it comprises. Indeed, it might be stated that most research studies on PTSD in Kosovo are part of existing projects of authors, and closely related to their narrow scientific interests. In some cases, studies are part of broader postwar surveys on the Balkan region. Obviously, this fact has influenced the choice of the specific research methodology and produced several limitations which were noted in the review. Indeed, very few studies have realized a comprehensive investigation of PTSD (Cardozo et al., 2003; Cardozo et al., 2000; Wenzel et al., 2006), and there is no existing study with clinical samples, reporting on prevalence, clinical manifestation, or pharmacological treatment. In addition, there are no studies focusing on ethnocultural aspects (collectivistic culture, families with large numbers of members, shame to accept suffering from trauma, etc.), although in three cases, some factors are mentioned superficially (Ai et al., 2002; Eytan et al., 2014; Traue et al., 2009). Also there is no evidence on any preexisting factors specific to the individual, that is, preexisting psychopathology, family factors, and so on. Demographic factors across studies have been only superficially discussed without proper analyses of the underlying issues.

Although authors have demonstrated awareness of methodological problems such as sample size, self-selection, non-randomized process, lack of control groups, and so on, findings of existing studies still need to be carefully considered and future research is absolutely necessary. Conclusions about prevalence and other factors studied are based on the questionable assumption of the validity of assessment

techniques and measures. Particularly concerning is the lack of cultural validation of measuring instruments, that is, the cultural interpretation of concepts and terminology used. Again, validation measures of PTSD among the various cultures and samples remain an important problem, which is still not tackled (Keane et al., 2006).

To conclude, it is quite challenging to draw conclusions on PTSD prevalence and related factors in Kosovo, mainly because existing studies have used very diverse research methods, including sampling and instruments. Care should be taken when making comparisons with other postwar countries, as data from Kosovo are barely representative of the population. However, it might be argued that more than a decade after the end of the Kosovo war, the presence of post-traumatic stress in Kosovo is still substantial and represents an important public health concern. Moreover, the quality of mental health services is quite poor and future research is needed to identify needs and barriers in this context. Some future research directions might include resilience and vulnerability factors, ethnocultural factors (relevant and fair assessment/diagnosis), training needs of professionals, and barriers to care.

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