The Mental Health Consequences on Children of the War in Ukraine:

A Commentary

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Abstract:

The news from Ukraine is currently full of heart-wrenching stories accompanied by graphic images of civilian casualties and massacres that are telecast world-wide on a daily basis. It is hard to fathom the magnitude of the devastation and disruption to regular lives and everyday routines that war brings with it, the witnessing of countless deaths, the associated trauma of living in perpetual fear, and the daily experience of many families and orphans who are crowded into basement bomb shelters now for months on end. These issues make us contemplate the mental health consequences, among other lasting effects, of this costly war in Ukraine, and wars in other countries not so widely featured in Western news. Despite people of all ages being affected by war, children are especially vulnerable. This commentary outlines some of the epidemiology of the consequences of war, the mental health sequelae specifically, and the complexity of providing culturally and contextually relevant interventions that meet the needs of children.
**Epidemiology:**

At the time of this writing (August 2022), an estimated third of the population of the Ukraine has been displaced because of the recent invasion that began on February 24th, 2022 (UNHCR Regional Bureau for Europe, 2022). This mass displacement because of war, and the preceding eight years of conflict in the eastern region of the country, put an estimated 7.5 million children at extreme mental and physical health risk since many of their basic needs cannot be met, including guaranteeing physical safety, food, shelter, education and social support (UNICEF, 2022). Only a few weeks after the February invasion, a policy scoping editorial published in *European Child and Adolescent Psychiatry* (Bürgin et al., 2022) painted the horrific picture of the enormity of the short- and long-term mental health burden inflicted on children due to the “recent double jeopardy” of the Covid19-pandemic and now a full-scale war. A recent *Lancet* article concluded that the global burden for children (and women) from armed conflict is growing steadily and significantly “due to a combination of increasing population sizes, urbanization of many conflicts, and a steady rate of conflict events around the world. In 2017, at least 630 million women and children (10% of women and 16% of children worldwide were either displaced by conflict or resided dangerously close to armed conflict events)” (Bendavid et al., 2021). Indeed, a significantly increasing number of children under the age of 18 years - with estimates as high as 1 in 6 or close to half a billion children - are growing up in regions of the world where acts of political violence and armed conflict are occurring (United Nations Children’s Fund report, 2020; United Nations Human Rights Office of the High Commissioner, 2022), and there has long been concern about the mental health consequences for these children from exposure to war and war-related issues (Young, 1947; Slone and Peer, 2021; for reviews see Slone and Mann, 2016; Rousseau et al., 2018). Despite this, child and adolescent mental health in the context of conflict is generally not a prioritized area of care or research, and those who are disabled, or are children conceived because of conflict rape (namely sexual violence, which is a well-known strategy of war - Nordás & Cohen, 2021), are often further neglected or marginalized. In addition to those
affected directly by war (in Ukraine and other countries world-wide), an enormous number of children who are not at the center of armed conflict can also be indirectly deeply affected.

The psychological trauma of war and many of its sequelae travel well beyond the points of conflict. In an era of digital connection, children also experience and learn about war indirectly, hundreds and thousands of miles beyond the center of armed conflict, both through news and social media, and from a growing number of refugee classmates. Young people are presented with countless stories, numerous perspectives, and in many explicit and detailed forums and circulating photos. Thus, the risk of both psychological trauma as well as psychological numbing to those not even directly affected is likely. Further, the effect of parental anxiety about war can deeply affect children. One study examining multiple distress symptoms in parents exposed to the Gulf Crisis (1990–1991) clearly shows that parent distress was a risk factor for depression in their children (Lai et al., 2014). Another review of the many studies of families of Holocaust survivors describes clear intergenerational effects, such as heightened stress response in the children of survivors (Dashorst et al., 2019). These data suggest that - where possible - clinicians may want to consider additional developmentally appropriate therapy options for children of these parents reporting psychological distress, especially depression symptoms, after exposure to traumatic events.

It is impossible to predict the consequences of the psychological trauma in children of both the direct and indirect experience of this particular war in Ukraine, but the mental health consequences in children today lasting into their subsequent adulthood are likely to be on a scale that has not been encountered since the Second World War, maybe especially so since current media enables the frequent and wide-spread re-playing of the horror. However, exposure to war-related violence does not have to result in horrendous mental health outcomes in children. Indeed, two world wars within the last century and countless other wars and conflicts (such as for example the Second Congo War (1998-2003) that led to the deaths of over 5.4 million and displacement of millions in nine African nations, or the modern
Israeli–Palestinian conflict from the middle of the 20th century, or the period of conflict and political violence in Northern Ireland during the late 20th century) have provided a growing and optimistic literature that offers promise of mitigating some of these negative mental health outcomes by focusing on resilience, healing, adapting, and recovery (Shoshani and Slone, 2015). Further, although usually absent from the literature on mental health effects of conflict on children, some reports that focused on physically disabled children suggest that the attitudes of those responsible for the care of the children could shape the experience so it leads to positive repercussions (e.g., Wheatcroft, 2008), but this literature is scant as it is very much a neglected topic of investigation. Indeed, there are horrific reports that suggest that children with disabilities are at heightened risk for violence (UNICEF, 2018), a fear that has been voiced in the context of the recent invasion of Ukraine (Schiariti and Hollung, 2022). Thus, the mental health burden to children globally is enormous and growing significantly.

**Mental Health Effects:**

The United Nations Child Rights Committee has expressed grave concern regarding physical and psychological violence: "Children in Ukraine are currently subject to extreme suffering and trauma. … As a consequence of the military attack on Ukraine, children are exposed to extreme violence and experience unbearable levels of fear and anxiety. … Children will suffer from profound, long-lasting physical, psychological, emotional and traumatic consequences" (United Nations Child Rights Committee, 2022). Indeed, the adverse effects of armed conflict for children are direct and indirect, and the harm is immediate and long-term (Kadir et al., 2018). War directly deprives children of predictability and creates a loss of physical and psychological safety and often separation from family. Numerous recent or ongoing armed conflicts and wars (e.g., in Afghanistan, Columbia, Iraq, Somali, Sudan, Syria, Yugoslavia, to name just a few) have resulted in a whole generation of children in our societies who cannot escape the memories of the horror they have fled, namely the threats, violence, and witnessing of family members being murdered (e.g., Hodes et al., 2018). It is
possible that experiencing such trauma may create permanent changes to the neural connectivity in the brain (e.g., Nutt and Malezia, 2004), and it remains to be established whether any form of therapeutic intervention can mitigate these potential neural changes. What is clear is that the associated adversity and trauma can have significant negative consequences later in life, both physically and mentally. The long-term mental health costs to children of war and war-induced displacement is enormous, with a diverse range of suffering that includes posttraumatic stress disorder and posttraumatic stress symptoms, sleep problems, anxiety, depression, panic disorders, increased arousal and reactivity, social symptoms, academic dysfunction, self-blame, rumination, conduct disorders, negative social behavior, aggression, psychosomatic complaints, general psychological distress, and lower levels of well-being (for reviews see: Calam, 2017; Goodwin et al., 2021; Harb and Schultz, 2020; Jin et al., 2021; Slone and Peer, 2021).

Children directly experiencing war and those fleeing are especially at risk of exploitation and human trafficking, and already countless horrific stories regarding the war in Ukraine have emerged of this criminal behavior (UNHCR, 2022), which in turn can lead to lasting mental health scars in the young victims. The physical environment of war, such as exposures to toxins, teratogenic and carcinogenic metal from war remnants likely have an additional effect on brain development in complex and diverse ways as well, aside from their effects on other organs of the body (Baraquoni et al., 2020), and may result in seemingly new neuropsychiatric conditions. One tragic example is the debilitating Nodding Syndrome characterized by malnutrition, stunted growth, mental retardation and seizures that affected thousands of children after the conflict nearly two decades ago in North Uganda and South Sudan (Musisi et al., 2013), with estimates that currently 16.7% of children suffer from this (and epilepsy) in parts of South Sudan (Colebunders et al., 2016).

Interventions:
Interdisciplinary studies of the mitigating factors of stress, trauma and resilience could guide research and practice to translate into culturally appropriate targeted prevention and intervention efforts for children exposed to political violence and armed conflict (Masten and Narayan, 2012). However, exactly how to do this is not clear. A systematic review of diverse interventions for children affected by armed conflict (including approximately 30,000 children distributed widely geographically) found the most robust evidence for mitigating trauma related issues was in “capacity building, relationship strengthening, problem solving, and therapeutic rapport” (Bosqui and Marshoud, 2018). They noted the well-known adverse effect of implementing trauma processing too early post incident (which increases the risk of post-traumatic reactions; Roberts et al., 2009). Indeed, many trauma counseling methods are culturally inappropriate in settings outside of where they are developed. This highlights how essential it is that all decisions and interventions be informed locally and nationally to ensure culturally appropriate and adapted therapeutic methods (for reviews see: Ehntholt and Yule, 2006; Gillies et al., 2016; Katsonga-Phiri et al., 2019; Sullivan and Simonson, 2016; Thomas et al., 2022). However, there is little guidance on how to deliver mental health interventions that are suitable for conflict settings specifically (Gaffey et al., 2021), and naturally delivery, coverage and effectiveness of interventions of mental health and psychosocial support will necessarily vary as a function of whether the conflicts are in low or middle-income countries (Kamali et al., 2020). Most often the needs of children in low or middle-income countries are greatest. These are the children with the higher probability of the conflict of war being compounded by a variety of risk factors notably poverty, less education and rural living. In addition, these disadvantaged children are least likely to get the help they need, and yet are the ones who should be targeted with interventions (Akseer et al., 2020). A dramatic and sobering illustration of this reality are the findings in Sierra Leone that for children there is “an estimated treatment gap of 99.8-99.9%” for mental health care services (Yoder et al., 2016).

Tragically, globally child and adolescent mental health is a neglected area (Benjet, 2010; WHO, 2015). Sierra Leone’s (limited) experience in actively using targeted education at all
levels of society shows promise of how important this can be for child and adolescent mental health in counteracting the adverse effects of war (and the Ebola epidemic), yet the scale needs to be so very much larger than it is (Yoder et al., 2016). However, even with best efforts, societal healing can be extremely difficult as evidenced in the aftermath of the 1994 genocide in Rwanda (where in 100 days, an estimated 800,000 were killed, primarily members of the Tutsi minority ethnic group). Here reconciliation after conflict rape has proven to be remarkably complex, especially in those children who were born as a consequence of this sexual violence (Kahn & Denov, 2019). This complexity is a consequence of the numerous pathways to healing (intrapersonal, interpersonal and social), all of which are interrelated and contingent upon each other. A study by Doctors Without Borders regarding mental health services for children (during 2009-2012) in the Democratic Republic of Congo, Iraq and the occupied Palestinian territory who had been exposed to armed conflict (specifically sexual violence, domestic violence, incarceration or detention) reported that brief trauma-focused therapy was able to reduce trauma related symptoms in children. Although optimistic that this may be a feasible tool in terms of mental-health intervention in children, the report emphasizes the need to establish why so few children are enrolled in, and stay in, these mental health service programs (Lokuge et al., 2013). Further, as pointed out by Martsenko and others (2022) in response to the invasion in Ukraine, little is known regarding how mental health challenges have been addressed during the ‘active phases of wars’ (Shevlin et al., 2022). However, the International Trauma Consortium provides a repository of language appropriate mental health measures for the ongoing conflict in the Ukraine (www.traumameasuresglobal.com/ukraine).

Thus, we are seeing a growing global mental health crisis in children. Various aid organizations, such as Doctors Without Borders, Save the Children and United Nations bodies such as UNICEF are well positioned to intervene with mental health counselors, psychologists and psychiatrists to mitigate and try to prevent the long-term effects of war particularly on vulnerable children. Mental health personnel need to be trained in how to
meet and address the dramatically varying needs of victims of violence, and evidence-based interventions need to be widely disseminated and available.

**Conclusions:**

Inevitably there is a broad range of adverse consequences for the mental health of children exposed to armed conflict, but precisely because there is such diversity there cannot be a single universal set of interventions that will be appropriate in all cultural contexts. The severity and nature of the trauma will obviously be diverse as will be the impact of the subsequent effect of these events. Identifying those at risk, treating the entire family (where possible) and promoting resilience at a community level are all viable methods to nurture recovery in children and adolescence. However, even if it were possible to create a repertoire of suitable interventions that address the broad spectrum of cultural and socioeconomic contexts (i.e., a diverse intervention toolbox), the harsh reality is that only a minor percentage of those affected will be reached by these interventions, and thus be able to potentially benefit. So how do we as a society face a world where such a staggering proportion of the young population has experienced the brutal effects of war? Very much remains unknown and there is an urgent and ever growing need for significantly more carefully planned and well-funded longitudinal research studies to understand the diversity of the effects of war and conflict on the mental health outcomes of children. There is unlikely to be one set of standard outcomes as each experience of conflict varies among individuals. Furthermore, all eventual tools developed will need careful translation and local validation, as well as evaluation of outcome data in terms of its effectiveness. The challenge will be to attempt to meet the mental health needs of approximately half a billion children affected by armed conflict.
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