

Implications of not addressing mental health and psychosocial support (MHPSS) needs in conflict situations

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Question

What are the implications of not addressing mental health and psychosocial support (MHPSS) needs of children, youth and adults in conflict situations?

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1. Summary

This review of existing literature indicates that there are a number of significant implications of not addressing mental health and psychosocial (MHPSS) needs of children, youth, and adults in conflict settings.

Mental health consequences of war are by now fairly well documented (see for example: Murthy and Lakshminarayana, 2006; Werner, 2012; Betancourt et al., 2014; Jordans et al., 2016). Children are particularly vulnerable to the negative effects of conflict, and mental disorders resulting from war-related trauma can hamper development and lead to decreased functioning in adulthood (Werner, 2012). Launched in 2016, the new Sustainable Development Goals (SDGs), reflect recognition by the global development community of the significance of mental health problems, particularly in childhood or youth, as leading causes of problems throughout the life course (Brown et al., 2016). These new SDGs acknowledge mental health and well-being as key components of overall health and aim to reduce children's exposure to violence and other adversities (Interagency Expert Group on SDG Indicators, 2016).

Historically, researchers in humanitarian settings have focused on the impact of armed conflict on mental health at the individual level (Rees et al., 2015), as well as on identifying rates of post-traumatic stress disorder (PTSD) and other mental health disorders (Tol et al., 2011; Jordans et al., 2018). War-related trauma has been a key outcome of interest; traumatisation was understood to lead to depression, shame, withdrawal and aggression (Mattingly, 2017), sleep problems, disturbed plan and psychosomatic symptoms (Jordans et al., 2018). In these studies, limited attention was paid to the psychological impact of “daily stressors” – that is, the persistently stressful conditions of daily life that are caused or exacerbated by armed conflict – for example, poverty, socioeconomic adversity, and social exclusion (Miller and Jordans, 2016).

More recently, research on MHPSS needs (particularly of children and young people in conflict-affected settings) has undergone a “paradigm shift”. Emerging consensus is that armed conflict threatens children's mental health and wellbeing both directly—through exposure to war-related violence and loss, which can also result in “toxic stress”¹—and indirectly—through diverse daily stressors (Vostanis, 2014; Rees et al., 2015; Miller and Jordans, 2016; Eruyar et al., 2018; Jordans et al., 2018). Emphasis has moved towards a broader understanding of the diverse pathways through which organised violence impact on mental health and wellbeing, including risk factors during war, post-war daily stressors, and at all levels of the social ecology (individual, family, community, and societal) (Reed et al., 2012; Miller and Jordans, 2016; Eruyar et al., 2016; Hijazi et al., 2018). The focus of research has also shifted towards studying and evaluating MHPSS interventions (Miller and Jordans, 2016).

These trends have all shaped the findings of this review. MHPSS needs, particularly of children and adolescents, in areas of armed conflict and post-conflict societies have gained increased attention over the last decades. There is growing interest in the links between adverse mental health and physical health outcomes, with evidence that individuals exposed to major psychological stressors in early life have elevated rates of morbidity and mortality from chronic

¹ Toxic stress is defined by Harvard University's *Center on the Developing Child* as “excessive or prolonged activation of stress response systems in the body and brain”. Toxic stress, if left untreated, can have long-term consequences affecting children's mental and physical health into adulthood (see, for example, McDonald 2017, for examples from the war in Syria).

diseases in adulthood. A “two-way relationship” between mental disorders and unhealthy behaviours (e.g., diet and physical inactivity) has been highlighted, which, in turn, can contribute to increased rates of cancer, cardiovascular disease, obesity and diabetes and suicide (Mnookin, 2016). There is also an emerging body of work on the social (in particular intergenerational) and economic impacts of unmet MHPSS needs.

Nevertheless, there is still a lack of systematic empirical information about war-affected children and youth (Borba et al., 2016; Jordans et al., 2016).

This review examines the potential implications of not addressing MHPSS needs resulting from conflict throughout the life course, including on longer term mental and physical health, communities and families (including intergenerational effects), and overall human development (including education and participation in the workforce).

A number of gaps in the evidence have been identified:

- Whilst negative consequences of adverse childhood experiences have been well researched, the evidence base on the longer-term consequences of unmet MHPSS needs, in the context of armed conflict and violence, is significantly weaker (Werner, 2012; Brown et al., 2016; Hijazi et al., 2018).
- There are key limitations of the evidence base on child mental health in humanitarian contexts. These include a dearth of longitudinal data, small and unrepresentative samples, and a narrow focus on individual level rather than family- or community-level data (Panter-Brick et al., 2014).
- Additional research is needed to understand the importance of contextual factors (Mattingly, 2017) and ongoing stressors in the social ecology (Miller and Jordans, 2016) which can serve to promote or inhibit resilience.
- In conflict-affected settings where goals often include re-engagement of youth in educational or occupational activities, interventions must effect change in both symptoms and daily functioning. Yet, few studies provide data on functioning (Brown et al., 2016).
- There is a need for data that illuminates experiences of multiple adversities and intersectionality, and how these interact as risk factors for mental distress in emergencies, particularly for the most vulnerable (Hassan et al., 2016). More data is needed for people with mental and physical disabilities; male and female survivors of sexual violence or gender based violence; elderly people, and LGBTQI individuals. (Hassan et al 2016; Hijazi et al 2018).

2. Implications for longer term mental and physical health

Mental health

Mental health problems amongst children and adults may persist a long time after a violent conflict ends. Acute exposure to violence can lead to chronic mental illness, including post-traumatic stress disorder (PTSD) (Fegert et al., 2018), which is the most widely studied (Devakumar et al., 2015). Psychological distress manifests in diverse ways in protracted and post-conflict settings, including anxiety (Devakumar et al 2015), as well as acute stress disorder and clinical depression (Borba et al., 2016). Rates of trauma in children who have survived

violence can remain high even after conflict ends, with negative consequences for their ongoing mental and physical health. Moreover, mental health issues in childhood and adolescence can cause a number of other problems throughout the life course. For example, Hijazi et al. (2018), in their final report from an expert meeting of MHPSS experts hosted by the German Federal Ministry for Economic Cooperation and Development (BMZ) and the United Nations Children's Fund (UNICEF) in 2018, argue that toxic stress can disrupt brain development and have long-term effects throughout the life course, on areas including learning, behaviour and health (research on these are examined in subsequent sections of this review). Moreover, trauma may be further intensified by factors beyond the conflict, including poverty, health and human resource constraints (Hassan et al., 2016), increased presence of weapons and normalisation of violence within society (Devakumar et al., 2015).

A number of studies link adverse mental health in childhood with mental health problems later in life. For example, analysis of data from the World Health Organisation's 2004 Global Burden of Disease Study² finds that poor mental health in adolescence carries risks of emotional, behavioural, and severe psychiatric problems later in life (Gore et al., 2011). In his review of studies on the effects of war on children globally, Werner (2012) notes that mental disorders triggered by war-related trauma in children can hinder their development and lead to decreased functioning in their adult lives. Child soldiers and children who have been raped and/ or forcibly displaced are particularly vulnerable to long-term distress. Despite this, few studies have examined mental health and psychosocial functioning of former child soldiers (Werner, 2012).

Research by Dominguez et al. (2013) examined the ways in which young Liberians were surviving in the post-conflict context links war trauma with a number of risky behaviours. Many young Liberians in the study suffered from trauma, and engaged in violence, substance abuse, and sexual violence. Additionally, they developed mechanisms for survival that included a high level of "adulthoodification" (i.e., the phenomenon by which young people take on adult responsibilities). The study also notes that Liberian youth have trouble respecting authority and accepting help, and that they are influenced by negative peers. This increased young Liberians' participation in high-risk behaviours and exacerbated existing trauma - potentially weakening the post-conflict reconstruction of Liberia.

Also in Liberia, another study was carried out by the Ministry of Health and Social Welfare together with researchers from Massachusetts General Hospital to examine the impact of war and post-war events on Liberian youth aged 5–22 years (Borba et al., 2016: 64). The study identified externalised mental health problems, including drug and alcohol use, bullying others, and delinquent behaviour. Internalised symptoms and behaviours included lack of motivation, sadness/depression, suicidal thoughts, hopelessness, poor concentration and nervousness/worry (Borba et al., 2016: 64). The authors caution against a simplistic characterisation of the mental health needs of young people based only on the direct effects or

² Gore et al (2011) used data from [WHO's 2004 Global Burden of Disease study](#). Cause-specific disability-adjusted life-years (DALYs) for young people aged 10–24 years were estimated by WHO region on the basis of available data for incidence, prevalence, severity, and mortality. WHO member states were classified into low-income, middle-income, and high-income countries, and into WHO regions. Gore et al. estimated DALYs attributable to specific global health risk factors using the comparative risk assessment method. DALYs were divided into years of life lost because of premature mortality (YLLs) and years lost because of disability (YLDs), and are presented for regions by sex and by 5-year age groups (Gore et al., 2011).

exposures to war and trauma, and underscore that psychological needs are complex and interwoven in the economic and social fabric of the country.

Similar findings emerged from Betancourt et al's (2014) study on war-affected youth aged 15–24 years in Sierra Leone³ of diverse manifestation of longer term mental health symptoms. These can be both internalised (through exhibiting depression, anxiety or post-traumatic stress reactions) or externalised (including anger problems, difficulties with anger/emotional regulation, interpersonal deficits), and result in impairments in everyday functioning.

In their 2018 report to the German government on the psychosocial problems facing war-affected refugee families in Germany, Fegert et al. (2018:3) highlight that PTSD, if left untreated, can become chronic. Survivors of war and other forms of organised violence, including both soldiers and civilians, are known to still suffer from psychological impairments years after the traumatic events.

Physical health

There is an emerging body of literature linking adverse mental health and physical health outcomes. Within the broader context of adverse childhood experiences, Miller et al. (2011) reviewed literature examining links between psychosocial stress in childhood and vulnerability to chronic disease in adulthood. This review finds that individuals exposed to major psychological stressors in early life have elevated rates of morbidity and mortality from chronic diseases of aging. The authors identify the most compelling data from studies of children raised in poverty or maltreated by their parents, who show heightened vulnerability to vascular disease, autoimmune disorders, and premature mortality. Several major risk factors are identified, which increase the risk of physical ill-health in adulthood: maltreatment, low socioeconomic status and early stress. In a separate review of mega-studies on the global disease burden, Kivimäki and Steptoe (2018) also identify links between “severe stressful experiences in childhood” and damaged health in adulthood, including risk of “multiple chronic conditions.” The authors note that adulthood stress can also be a disease trigger for individuals with a high atherosclerotic plaque burden or pre-existing cardiovascular or cerebrovascular disease (Kivimäki and Steptoe, 2018).

A 2016 report⁴, presented at a high level World Bank/ World Health Organisation meeting on making mental health a global development priority, also highlights links between mental health disorders and other diseases including cancer, cardiovascular disease, diabetes, HIV, and obesity (Mnookin, 2016). The authors note that this may, in part, be due to the “two-way relationship” between mental disorders and unhealthy behaviours (e.g., diet and physical inactivity), which, in turn, can contribute to increased rates of cancer, cardiovascular disease, obesity and diabetes and suicide (Mnookin, 2016: 5). They argue that “improving a population’s mental health will improve its physical health” (Mnookin, 2016: 5).

³ This used a randomised controlled trial to test the effectiveness of a 10-session cognitive-behavioural therapy (CBT)-based group mental health intervention for multisymptomatic war-affected youth (aged 15–24 years).

⁴ This report was based on based on the activities over a two-year period by a Working Group including experts from the World Bank Group, World Health Organization, Harvard Medical School U.S. National Institute of Mental Health, Wellcome Trust, United Nations Department of Economic and Social Affairs, University of Washington, National Institute of Mental Health, Japan, Open Society Foundation, London School of Hygiene and Tropical Medicine and (NOVA University of Lisbon).

Though more nascent, there is also an emerging body of research that examines specifically the impact of mental health on physical health outcomes in conflict contexts. For example, a review by Werner (2012) of research that examine the effects of war on children globally identifies several German studies exploring the long-term effects of war trauma on the mental and physical health of individuals who were children in World War II. One is an interdisciplinary longitudinal study of aging by Schmitt (2007, cited in Werner, 2012) examining the health status of men and women who were war children at age 60-65 years. This finds a higher likelihood negative physical health amongst those who had experienced bombing, combat or separation from their parents in childhood. Similarly, a population-based study by Glaesmer et al. (2011, cited in Werner, 2012) of nearly 1,500 Germans aged 60-85 finds links between war trauma and increased risks of medical conditions, including cardiovascular disease.

Calam's (2017) review analyses existing research about perinatal and childhood stress with susceptibility to chronic illnesses, proposing that children with experiences of flight from war, displacement and refugee life may have enhanced risk of negative effects on physical health in adulthood. She argues that this is because they often are exposed to several key risk factors, including parental maltreatment, low socioeconomic status and early stress. Calam's work is, however, theoretical, although she draws on various historical studies to make her case, stating that "prior studies of war and famine show that early adverse experiences [though not necessarily mental health] can precede long-term negative effects on physical health" (Calam, 2017: 10).

In their study of the impact of war on emotional/ behavioural problems and functional limitations of Liberians (aged 5–22 years), Borba et al. (2016) observed that mental health issues in children aged 5-12 years often manifest as emotional and behavioural problems, which, in turn, had an impact on their physical health. This is because their functional limitations results in inability to get enough food, as well as engage in self-care, personal hygiene and other activities which normally promote good physical health (Borba et al., 2016: 64-6).

Despite established links between mental health and alcohol and drug abuse, evidence on this from conflict and post-conflict settings remains limited (Devakumar et al., 2014; Hassan et al., 2016). In a report commissioned by the United Nations High Commissioner for Refugees, which aims to provide information on cultural aspects of mental health and psychosocial wellbeing relevant to care and support for Syrians affected by the crisis, Hassan et al. (2016) suggest that unmet mental health needs may increase the likelihood of drug and alcohol abuse in adults. They note that, in Syria, women dealing with loss are particularly prone to substance abuse. Indeed, cases of addiction to prescription medications have been recorded in Syrian refugee camps (Hassan et al., 2016: 131-132).

In their review on intergenerational effects of war on children, Devakumar et al. (2014: 4) also note that drug use increases in displaced groups, especially among combatants and former combatants, who may use it as a way to cope with traumatic memories or stressful situations. For example, in Afghanistan, increased intravenous opiate use has been observed as a result of conflict and related drug policy. In Somalia, the use of khat⁵ among ex-combatants was 60%, compared with 28% in civilian war survivors and 18% in civilians without war exposure. (Devakumar et al., 2014: 4). The authors note that drug use may present intergenerational

⁵ Khat is a substance that contains a psychoactive compound similar to amphetamines.

effects (see section 3 below on Social Impact). Mnookin's (2016) report to the World Bank/ WHO (outlined above) highlights that substance abuse can lead to risky sexual behaviours, which may, in turn, increase the risk of HIV infections and other injuries (Mnookin, 2016: 5).

3. Social implications of adverse mental health

There is an emerging body of literature which argues for the importance of understanding the wider mental health impacts on families and communities (Betancourt et al., 2014; Miller and Jordans, 2016). For example, Jordans and Tol's (2015: 73) article on approaches to MHPSS support for children in areas of armed conflict observes that exposure to violence affects children's world views, social networks and relationships, and family functioning. Despite acknowledgement that poor mental health can adversely affect social networks and wider communities (Jordans and Tol, 2015; Borba et al., 2016; Jordans and Tol, 2017; Silove et al., 2017), more detailed research on these impacts is scarce. Instead, existing research on the links between mental health and community structures often focuses on the (positive or negative) impact of communities on individual mental health. For example, a systematic review of psychosocial interventions for conflict-affected children and youth living in LMICs by Brown et al. (2016) finds that damage to social, community and family support networks, in addition to other daily stressors in the post-conflict setting, can exacerbate social, emotional, and economic consequences of war for young people (Brown et al., 2016: 1-2). Other studies argue that mental health symptoms of youth, exposed to war trauma, should be viewed in the context of parallel breakdown of protective communal, family and societal structures (Betancourt et al., 2014; Borba et al., 2016; Miller and Jordans, 2016: 4). In situations of armed conflict, familial and community violence against children may increase significantly and, along with other daily stressors, are strongly linked to children's mental health.

A greater number of studies were identified examining the links between mental health and families (see below).

Families

The association between parental and child mental health is by now fairly well-established across different contexts, particularly in countries not affected by armed conflict (Miller and Jordans, 2016: 3). There is an emerging body of work in conflict-specific settings, although this is still nascent (Devakumar et al., 2014; Rees et al., 2015; Miller and Jordans, 2016). Miller and Jordans (2016) suggest that this may be due to the high visibility of war-related violence relative to family violence, and/ or a perception among researchers that asking about family violence is culturally taboo and potentially dangerous for participants (Miller and Jordans 2016: 3). A growing body of research indicates that parental trauma and psychosocial stress during conflict can adversely affect health of children, through the proliferation of stressful social environments as well as biological pathways (Devakumar et al., 2014).

Parent/ carer mental health

In their review of research on the influence of living conflict settings on children's mental health and psychosocial wellbeing and interventions with war-affected children, Miller and Jordans note links between parental psychological distress and risk of inter-parental violence, child maltreatment, and impaired parenting (Miller and Jordans, 2016). Slone and Mann's (2016) review of research on the effects on children exposed to war and violence and parental factors,

finds that caregivers exposed to conflict-related and other common daily stressors can have high rates of psychopathology, which prevent them from providing responsive and effective parenting.

A study by Khamis (2014) on the impact of war trauma on behavioural and emotional disorders in children examines the potential mediator and/or moderator effects of parental psychological distress. This finds that conflict-affected parents may face difficulties interacting with children, become less sensitive and responsive to their needs, and may be less effective at maintaining rules and setting boundaries. Similarly, Borba et al. (2016) in their study of war-affected Liberians, found that young adults often experienced challenges in parenting, relating to work, maintaining healthy relationships with their spouses and forming intimate relationships. Moreover, the authors note that disruptions in functioning may create a negative feedback loop, with “poor mental health promoting poor functioning, and poor functioning exacerbating poor mental health” (Borba et al 2016: 64-65).

Evidence on the relationships between child-carer mental health is also found in research on displaced populations. In their report on the psychosocial problems facing war-affected refugee families in Germany, Fegert et al. (2018) argue that adult refugees traumatised by war may be unable to adequately fulfil their parental responsibilities, to create a safe and nurturing environment for their children. For children who have experienced traumatising events (either in their country of origin and/ or during flight) this can exacerbate the risk of developing serious cognitive and socio-emotional disorders or permanent developmental impairments. Moreover, the family’s mental health dynamics are often exacerbated by crowded housing environments where there is little or no privacy or personal space to retreat to. The authors argue that “problematic parenting”, neglect, and violence against women and children are significantly more frequent in such families. Parents and caregivers who are overwhelmed by their children’s emotional and behavioural challenges (linked to psychological disorders brought on by societal violence) may further mistreat their children at home (Fegert et al., 2018).

Maternal mental health

A number of studies focus specifically on the impact of maternal mental health on children’s mental and physical health. In a qualitative study by El-Khani et al. (2018) carried out in refugee camps in Turkey, Syrian refugee mothers described how trauma, loss and severe stress caused by poor living environments and uncertainty about the immediate and long-term future had made it difficult for them to maintain positive parenting strategies (El-Khani et al., 2018). Betancourt et al. (2015) in their study examining the relationship between caregiver mental health and children’s anxiety and depression symptoms in post-conflict Sierra Leone, observe that “a depressed or traumatized mother is far less likely to tune in to her infant’s elicitation.” There is also evidence from Sri Lanka, Afghanistan, Israel and Bosnia and Herzegovina that child depression is best predicted by maternal physical and mental health (Betancourt et al., 2012: 358). Additionally, Thornicroft and Patel (2014) note that mental illness in mothers has been identified as a risk factor for child undernutrition.

Other research on family impacts of war-affected mental health identify links to violence within the family (Panter-Brick et al., 2014). Panter-Brick et al.’s (2014) research assesses links between family dynamics and mental health outcomes in Afghanistan. This study finds that family violence and maternal mental health were both strongly linked to multiple dimensions of children’s mental health status. Adults and children both identified the quality of proximate family dynamics for getting ‘better’ or ‘worse’ in terms of wellbeing, and children in particular highlighted

family-level protective factors. The authors argue that violence prevention and peace-building at family-level are critical to effective child mental health interventions in conflict settings, where attention to war violence is often outweighed by attention to domestic violence.

Research by Palosaari et al. (2013) on political violence and mental health in Gaza finds that exposure to political violence increased men's distress, as well as their use of harsh parenting behaviours. These, in turn, adversely impacted children's attachment security and level of post-traumatic stress symptoms. Links between war-induced mental health and intimate partner violence (IPV) are also observed in Fegert et al.'s (2018) report. The authors note that men who have been traumatised by war are more likely to turn to alcohol, which appears to be a crucial risk factor for domestic violence. The authors also reference a separate study of couples living in areas of northern Uganda afflicted by civil war, which found that women who had experienced several traumatic events during the war and who showed more severe symptoms of post-traumatic stress were more frequent victims of domestic violence.

Intergenerational effects

Within the literature there is a growing interest in intergenerational impacts of war trauma on mental health. Yehuda and Lehrmer (2018) provide a useful review of the history and current state of research around intergenerational transmission of trauma. The authors identify "converging evidence" supporting the idea that offspring are affected by parental trauma exposures occurring before birth, or even prior to conception. Most simply, they suggest, the concept of intergenerational trauma refers to "secondary traumatisation" (i.e., the stress of living with a traumatised individual expressing symptoms or reliving horrific experiences) (Yehuda and Lehrmer, 2018: 244). A more recent claim is that traumatic experiences are passed from one generation to the next through "non-genomic, possibly epigenetic mechanisms affecting DNA function or gene transcription" (Yehuda and Lehrmer, 2018: 243).

The concept of "intergenerational trauma" was first introduced in the psychiatric literature through descriptions of behavioural and clinical problems in offspring of Holocaust survivors. These manifested as symptoms and feelings including impaired self-esteem, catastrophising, worry, anxiety, nightmares and guilt. Such studies often did not account for parental psycho-pathology, but assumed it on the basis of parental exposure. Similar symptoms were later described in studies of children of Vietnam veterans (Devakumar et al., 2014; Yehuda and Lehrmer, 2018). In this early research, transmissions from parent to child were distinguished as either "a direct consequence of a psychiatric condition in the parent", or "an effect reflecting the child's reaction to symptoms in the parents" (Yehuda and Lehrmer, 2018: 244). Yehuda and Lehrmer signpost more recent research around the impact across generations of historical events such as colonization, slavery and displacement trauma.⁶ Some aspects of intergenerational trauma effects are still contested. Broadly, however, there is increasing recognition of their universality (ibid).

Yehuda and Lehrmer also outline how biological research on intergenerationality emerged in the late 1990s and how advances in molecular biology have provided tools for examining how traumatic events might result in "enduring, transformative and possibly even inherited change"

⁶ Amongst First Nations and native American communities, African Americans, Australian aboriginals and New Zealand Maori, societies exposed to genocide, ethnic cleansing or war (e.g., Cambodia, Armenia, Rwanda, Palestine and communities in the former Yugoslavia).

(2018: 245). The authors caution, however, against conflating effects of parental behaviour with directly “inherited” effects resulting from biological transmission (Yehuda and Lehrmer, 2018: 247). Although much research to date is on animals, rather than humans, “evidence is beginning to converge around the role of epigenetic transmissions” and there is “much excitement for the possibility that similar mechanisms might be operating in humans.” The authors suggest that further longitudinal and multi-generational research is needed to identify evidence (Yehuda and Lehrmer, 2018: 251-252)

The concept of intergenerational trauma has been picked up in more recent research on the mental health impacts of war. For example, a study by Betancourt et al. (2012: 357) examines the role of caregiver mental health, risk and protective factors on internalising and externalising emotional and behavioural symptoms among a sample of Kunama refugee adolescents in a refugee camp in Ethiopia. This acknowledges the potential role of shared genetic heritage as a contributor to a predisposition to mental health problems in children of depressed parents. Nevertheless, the authors conclude that caregiver distress was a robust predictor of externalising and internalising emotional and behavioural problems in adolescents (Betancourt et al., 2012: 364).

An earlier study by Qouta et al (2005) examines war trauma and maternal/ child psychological distress amongst families living in Gaza. This finds an association between poor maternal mental health and negative impact on children’s mental health. It also identifies gender differences in psychological distress depending on whether the mother, the child or both were the main war trauma victim in the family. Girls showed particularly high psychological distress when their mothers were exposed to war trauma whilst boys showed high levels of distress when both they themselves and their mothers were exposed to war trauma. Significant associations were also found between mothers’ depressive and children’s internalising symptoms, and between mothers’ hostile and children’s externalising symptoms. A second study in Gaza (Thabet et al., 2008) also examined the relationship between ongoing war traumatic experiences, PTSD and anxiety symptoms in children, accounting for their parents’ equivalent mental health responses. This found evidence that exposure to war trauma impacts on both parents’ and children’s mental health, and that their emotional responses are inter-related.

In their review of research on intergenerational effects of war on children Devakumar et al., (2014) observe evidence of “strong associations” that exist between the mental health of mothers and their children. The authors also highlight that drug use may pass adverse intergenerational effects from parents to their children. For example, drug use by pregnant women can have transplacental effects or cause maternal ill-health or altered behaviour. The manifestations of this may be acute (e.g., neonatal abstinence syndrome from opiate withdrawal) or lead to longer-term behavioural and cognitive changes. Drugs and alcohol are also closely associated with mental illness in the user, which, in turn, can have detrimental effects on parenting ability and employment. However, the magnitude of the intergenerational effect of drug use associated with conflict have yet to be established.”

4. Implications of adverse mental health on human capital development

The World Bank defines human capital as “the knowledge, skills, and health that people accumulate throughout their lives, enabling them to realise their potential as productive members

of society.”⁷ Thornicroft and Patel (2014) suggest that ‘mental health problems, especially developmental disorders such as attention-deficit/hyperactivity disorder, are often associated with educational underachievement and [...] these blight long term economic prospects.’ Betancourt et al. (2014) suggest that failure to address the mental health consequences of war may perpetuate cycles of violence and contribute to lost human capital, Mnookin (2016: 5) argue that improving a community’s mental health can enhance overall social and economic welfare. This section examines some of the evidence for these arguments:

Education access, attendance and outcomes

A related K4D report by Mattingly (2017) examines psychosocial support and social emotional learning for children and young people in protracted conflict situations. This finds that although links between wellbeing and mental health with academic and learning outcomes have been “reasonably well documented” in non-emergency contexts, there are significant gaps in the evidence from humanitarian contexts (Mattingly, 2017).

Borba et al.’s (2016) Liberian study on the impact of war and post-war events on Liberian children and youth, finds that the youth in their study displayed both internalising and externalising symptoms and mental health-related functional impairment at home, school, work and in relationships. The authors note that, in post-conflict settings in LMICs, poor educational attainment (as well as poverty and physical health) are often attributed to lack of access to physical and human resources and infrastructure. They argue, however, that Liberian youth experience functional impairment due to mental health issues that further limit their ability to access these critically important resources.

Betancourt et al.’s (2014) study in Sierra Leone examines the impact of *Youth Readiness Intervention (YRI)* – a randomised control study focused on a cognitive-behavioural therapy intervention for multisymptomatic war-affected youth (aged 15–24 years) – on school functioning. The authors highlight that war-attributed mental health consequences on children - including internalised psychological distress (such as depression and anxiety and posttraumatic stress reactions), which may also manifest as (externalised) anger problems, difficulties with anger/emotional regulation, interpersonal deficits, and impairments in daily functioning - generate risk of poor psychological, social, and educational outcomes. Their study finds that YRI participants had significantly better school attendance compared to controls, and that, among youth in school, YRI participants also demonstrated significantly better classroom behaviour.

Elbert et al. (2009) examined traumatic experiences, PTSD, and co-morbid symptoms in relation to neuropsychological and school performance in school children affected by two decades of civil war and unrest in Sri Lanka. Within this study approximately one in four children suffered from PTSD, for whom both the memory tests and the school grades demonstrated significant impairment of cognitive development. Within the group of children with PTSD, memory performance was even lower in those who reported a greater variety of traumatic experiences. In addition to reduced memory performance, traumatised children performed less well in language skills (Tamil and English), but not in math and physical abilities. In children without PTSD, school achievement was better in those who suffer from PTSD, while their functioning impairment was greater. However, the sample with the highest class of traumatic experiences demonstrates

⁷ For more information see the World Bank [Human Capital Project](#).

impairment irrespective of whether or not the PTSD criteria are matched. In addition, children with PTSD also presented with more somatic complaints. Although the findings are correlational, the authors argue that alterations in memory functions and somatic consequences associated with PTSD increase the load and burden to such an extent that school performance becomes impaired.

Economic productivity

An emerging body of research also examines the impact of MHPSS on economic productivity. However, this assesses primarily short-term impacts and focuses on high-income countries (see, for example, Bloom et al., 2011; Kessler, 2012; OECD, 2015).

A 2011 report for the World Economic Forum, Bloom et al estimate the global economic burden of non-communicable diseases (NCDs), including mental health, for 2010, and project the value of the burden through 2030. Lost economic output due is projected to be nearly USD 47 trillion during this period. Together, mental health and cardiovascular diseases account for almost 70% of this lost output, followed by cancer, chronic respiratory diseases and diabetes. There is a lack of existing data from low- and middle-income countries (Bloom et al, 2011), but a growing interest in how mental health may also impact on economic productivity in these (Chisholm et al 2016).

The OECD's (2015) four-year review of the impact of mental health on social and employment outcomes in OECD countries identifies mental health as a key variable in people's lives and economic growth. This report highlights links between mental health issues and economic losses on three different levels. At the individual level, people with mental health problems have lower employment, higher unemployment and increased risk of poverty. Employers suffer from losses in productivity at work and high rates of absence related to illness. The overall economy also experiences losses due to elevated social and health care expenditure (OECD, 2015: 9).

Chisholm et al. (2016) calculated treatment costs and health outcomes in 36 low, middle and high-income countries between 2016 and 2030 to propose a global investment case for a scaled-up response to the public health and economic burden of depression and anxiety disorders. The authors carry out a global return on investment analysis for mental health in people aged 15 years and older focusing on depression and anxiety disorders (the most prevalent mental disorders). These disorders lead to large losses in work participation and productivity, and yet lend themselves to effective and accessible treatment as part of an integrated programme of chronic disease management. The authors conclude that whilst investment into mental health outcomes is substantial, the benefits of doing so are also substantial.

Mall et al. (2014) analysed data from the South African Stress and Health Study (SASH) - the country's first nationally representative survey on physical and mental disorders - to examine links between physical and mental health disorders and "days out of role" - which have been identified as having important impact on national productivity losses. The authors found that both mental and physical disorders can "impede functioning as measured by productive employment and participation in other social roles".

A review of existing research on the effect of mental health interventions on individual, family and carer economic status in low and middle income- countries finds that mental health interventions were linked to improved economic outcomes. The authors note, however, that the difference was

not statistically significant in every study and they argue the need for additional research (Lund et al., 2011).

Despite interest in the economic impact of mental health conditions in lower income countries, existing data is more limited. Mnookin (2016), in their report on making mental health a global development priority, highlight a significant economic burden caused by mental health disorders due to lost economic output and the link between mental health and costly, potentially fatal conditions such as cancer, cardiovascular disease, diabetes, HIV, and obesity (Mnookin 2016: 3). Failure to treat anxiety and depression can contribute to household-level impoverishment, diminished economic growth and social well-being. This is because lost economic output results from untreated mental disorders leading to diminished work productivity, lower rates of labour participation, foregone tax receipts, and increased welfare payments. The authors argue that “a favourable economic return will follow from efforts to scale-up services for depression and anxiety” (Mnookin, 2016: 8).

The evidence of economic impact of mental health in conflict settings is more limited, often anecdotal or based on relatively small-scale studies. Bratti et al. (2015) carried out empirical research to assess the long-term economic impact of war on mental health in post-conflict Bosnia and Herzegovina (BiH). The authors note that while the ‘tangible’ costs of wars through the impact on survivors’ physical health, education and economic wealth are routinely assessed, evaluations of the psychological costs of wars, including those on mental health, are much scarcer. In their study, they measure the effects that recalling the war has on individuals’ labour force participation status, weekly working hours and net monthly income. They estimate that the war-trauma effect of the war accounts for approximately 4.2% of BiH’s GDP in 2001.

Betancourt (2015: 199) also identifies what she terms a “mental health consequence of war” in her research on war-affected youth in post-conflict Sierra Leone, which impacts on their economic potential. She states that:

the aftereffects of loss and trauma can result in paradoxical behaviour: even when they are given an opportunity, they squander it. For example, many nongovernmental organisation programmes have lamented the low attendance in youth employment and education programs in conflict zones, or have observed situations whereby war-affected youth, given nongovernmental organization issued tool kits, have sold their materials for quick money only to return to a life on the street.

Betancourt suggests that this is because exposure to violence is often associated with a foreshortened sense of the future that can lead young people to sell the very tools given to them to promote economic self-sufficiency.

The economic consequences of violence-affected mental health conditions also emerges in some studies on war-displaced populations. Bogic et al (2015) review studies that assessed factors associated with depression and anxiety disorders in adult war-refugees five years or more after displacement). From this, they conclude that links can be made between depression and unemployment and financial stress. Nevertheless, they note that it remains unclear whether “a poor socio-economic status after migration is a contributing factor in the occurrence or maintenance of a mental disorder or a consequence of the pre-existing mental disorder or both” (Bogic et al., 2015: 36). This is, in part, because of the paucity of comparable data for long-settled refugees.

In their report for a Migration Policy Institute research symposium on young children in refugee families, Sirin and Sirin-Rogers (2015: 11) note that mental health problems can result in “a high cost for society.” Drawing on more general research on the links between mental health and education/ employment outcomes, the authors highlight that individuals with mental health problems require more resources in school and in the transition to work; whilst as adults, they are more likely to leave jobs and stay unemployed. They suggest that ongoing mental health problems may thus limit the educational attainment and employability of Syrian refugees, hampering Syria’s eventual economic recovery (Sirin and Sirin-Rogers, 2015: 11).

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