Preventive mental health interventions for refugee children and adolescents in high-income settings

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The mental health of refugee children and adolescents is a multifaceted phenomenon that needs to be understood and addressed across multiple sectors that influence all potential determinants of health, including housing, education, economic opportunities, and the larger policy and political context including immigration. The current state of interventions to address mental health problems in refugee children is limited and even more so for prevention programmes. This Review describes interventions of note that are delivered to individuals as well as parenting and school interventions, and broader socioeconomic and cultural interventions. Few studies aim to assess impact across multiple domains of the refugee experience. The multidimensional and collective character of challenges facing refugee children and families calls for comprehensive psychosocial interventions through which healing the psychological wounds of war is complemented by restoring and supporting the social and physical environment so that it is one in which children and their families can thrive.

Introduction

The pressures causing forced displacement show no signs of abating, with the global population of forcibly displaced people growing substantially over the past two decades from 34 million in 1997 to 66 million in 2016. In recent years, the Syrian conflict has forced the largest movement of a population since World War 2. Of those displaced, most remain either internally displaced in their countries of origin or stay in neighbouring countries, often in temporary settlements and camps. In 2016, of the 22.5 million who had crossed an internationally recognised border making them a refugee, half were younger than 18 years of age. Only 15% were hosted in high-income countries, many as asylum seekers awaiting formal refugee status.

The mental health of forcibly displaced populations has been an important area of clinical work and research to understand how the interplay between biological, psychological, social, and cultural processes determines how individuals vary on a spectrum from successful integration and adjustment to chronic mental illness. The psychological impact on a child and their caregivers can be substantial—both positive and negative. Evidence suggests that two sets of factors are of key importance in understanding the risk and protective factors shaping the mental health of refugee children as well as being potential portals for interventions: exposure to past and ongoing traumatic events and the complexities of navigating the post-migration environment such as dealing with school, discrimination, and reconfigured family life.

To leave an environment of extreme insecurity and arrive in a different country of relative safety enhances mental health and wellbeing for many; the focus of this Review, however, will be on interventions that have been developed to mitigate the varied mental health risks accompanying forced migration. This narrative review of preventive mental health interventions for refugee children arriving in high-income countries highlights the triple jeopardy that inhibits the roll-out of informed interventions for this population: limited mental health research in children, high mobility of refugee populations, and complex cultural differences. First, the study of preventive mental health interventions is a poorly researched and conceptualised area for all children at heightened risk of developing mental health problems, be they the child of a parent with mental illness, a child with learning and neurodevelopmental difficulties, or those living in socioeconomically deprived environments. The barriers that inhibit research on representative samples of vulnerable child populations are manifold and range from ethical and consent issues to poor funding and limited attention. Second, refugee populations can be a highly mobile group often with immigration from ethical and consent issues to poor funding and limited attention. Second, refugee populations can be a highly mobile group often with immigration...
take place within the borders of one state or might have a transnational character. Trafficking in people can force or other forms of coercion, abduction, and deception, to achieve one person having control over another person, for the purpose of exploitation. Trafficking in people can be implemented. For example, in Greece, which is both a transit and destination country, the interplay of mental disorder with the austerity experienced as a result of the global financial crisis can, for refugee children, interact with the risk afforded by exposure to organised violence. The role of the international community is thus heightened, so as to ensure that the responsibility for forcibly displaced populations is shared across high-income nations and not solely an issue for countries along common migration routes.

Mental health and wellbeing

Refugee children often manage to navigate a substantial number of changes and challenges, and many exhibit considerable resilience and strength; however, a proportion, because of previous experience, current family, school, and living circumstances as well as biological predisposition, can develop major mental health difficulties with associated implications for academic and social functioning (figure 1). For example, mental health problems might impede a refugee child’s ability to adjust in the classroom and acquire a new language, with cascading consequences across several key facets of their resettlement such as establishing social support networks.

Depression, anxiety, or sleep disturbance, often in combination, are more common in refugee children than in the general population. Rates of post-traumatic stress disorder (PTSD) are particularly high relative to population norms, especially in unaccompanied minors. Emerging evidence shows how previous exposure to potentially traumatic experiences interacts with the post-migration environment to either exacerbate or attenuate the risk of having PTSD, as shown in longitudinal studies of unaccompanied minor children resettled in the Netherlands and Belgium, an 8 year longitudinal study of refugee children in Denmark, and a study of Somali adolescents resettled in the USA. Longitudinal studies of both child and adult refugees confirm the prolonged negative effect that exposure to pre-migration traumatic events and post-migration stressors can have a decade or more after migration. Furthermore, studies done 60 years after World War 2 showed that the psychological effects of conflict could be lifelong, with human rights violations a risk factor for PTSD, and deprivation and threat to life, risk factors for depressive symptoms. PTSD has also been shown to cluster in families with negative effects on attachment and parenting. There is also some diverging evidence in certain refugee groups, with higher levels of conduct disorder and substance misuse in some studies but not others, as well as increased physical health needs. Several studies have shown the high rates of social care alongside mental health needs.
health needs among unaccompanied minors. A 1 year study of more than 300 male Sudanese adolescents in the USA highlights several important resettlement factors that can contribute to improved outcomes, including cultural and living needs. Many had outcomes indicating a high level of functioning, therefore ensuring that new arrivals feel safe and supported in the post-migration environment is important for good physical and mental health.

Resilience is a dynamic process driven by time-dependent and context-dependent variables—it is more complex than just a balance between risk factors and protective factors. Studies of resilience in refugee children, including a systematic review from ethnographic data, shows that although there are some universal resilience processes, resilience in young refugees has substantial variability. Commonly identified resilience domains include individual characteristics, family strengths, cultural influences, education, and community supports. Other factors identified to promote resilience among refugee children include social support (from friends and community), a sense of belonging, valuing education, having a positive outlook, family connectedness, and allegiances to one’s original culture.

A review of resilience identified eight protective factors to promote psychosocial wellbeing in adolescent refugees. These included finances to provide for necessities; host language proficiency; social support networks; engaged parenting; family cohesion; maintaining cultural links; educational support; and faith or religious involvement. Potential targets identified for preventive work included: friends and peers; parents; extended family members; school staff; faith community networks; and resettlement agency caseworkers and health-care providers.

Interventions

The interventions that do have an evidence base are often from relatively small, unreplicated studies, therefore the overall dearth of evidence lends difficulty to the entire exercise of identifying appropriate preventive interventions from which to draw conclusions. Rather than limit this narrative review to an endless list of research that needs to be conducted, relevant perspectives and evidence from studies of migrant children and adult refugees in high-income countries, as well as refugee children in low-income and middle-income countries (LMICs) contexts, are incorporated where relevant, to inform the review with the best available conclusions drawn from the field. No one framework to conceptualise the domains of prevention of mental illness in refugee children is used in this review however, Bronfenbrenner’s bioecological model of development alongside models including those of the intergenerational transmission of trauma, post-conflict cycle of violence, family stress, migration and daily stressors, peer interactions, and community relationships have been used to inform the findings (figure 2). As for interventions, there will always need to be cultural adaptations and nuances to reflect local and refugee contexts but given the substantial numbers involved, the evidence base needs to be appropriately and practically expanded.

Specific mental health interventions

A small evidence base for interventions for refugee children in high-income countries (HIC) exists, limiting the conclusions that can be drawn. Several systematic reviews on mental health mechanisms and interventions have been published over the past few years on refugee children and unaccompanied minors as well as adults and other forcibly displaced populations from which we can try to inform our understanding of possible preventive interventions. These interventions have been delivered to individual children with or at risk of developing disorders as well as to parents, families, and identified groups in the community or school.

Acute interventions for refugee children include “psychological first aid” and “skills for psychological recovery” but with little evidence-base to support their use. Several interventions have been studied incorporating the creative arts and include drama therapy, creative expression workshops, and art therapy; all with some identified positive effects.

Interventions developed to specifically address the sequelae of exposure to potentially traumatic events, most commonly PTSD, include narrative exposure therapy (NET), trauma-focused cognitive behaviour therapy (TF-CBT), and eye-movement and desensitisation therapy (EMDR). Evidence thus far does not inform how to prevent PTSD in refugee children and only supports individual methods to treat PTSD, which for refugee children is beset with extraneous stressors such as poverty, transportation, linguistic challenges, and lack of parental support because of stigma or their own psychopathology, which might make it harder to identify and support difficulties in their children. Studies trying...
treatments to groups of children have little evidence for PTSD prevention and treatment with better support in the management of depression. For example, a school-based PTSD intervention in conflict-affected children did not have positive results, while another reduced depression in refugee children and PTSD only in migrant children. A school-based group CBT programme teaching so-called recovery techniques to war-affected children in Australia also only had intervention effects for depression. A group crisis intervention for PTSD in an LMIC refugee camp showed no evidence to support the expression of experiences as a treatment method.

The field is also beginning to expand to a focus on transdiagnostic interventions involving common elements of evidence-based interventions that have shown effectiveness in addressing common clinical issues in war-affected youth in LMICs. For instance, Bolton and colleagues have investigated a common elements-based approach using lay counsellors effectively across disorders among trauma survivors. This approach is supported by a broader review of the use of paraprofessionals in treating PTSD in low-resource settings, with potential for translation into high-income contexts, where services for refugee children can be poorly resourced.

Parenting and family interventions
Parenting exerts such a profound and important influence in the lives of children that considering aspects of parenting that can be disrupted for refugee children as well as possible ways to intervene is vital. Little attention has been given to the importance of family level processes (such as family relationships, communication, and resilience) in interventions for refugee children despite a body of literature indicating the importance of such dynamics in shaping healthy child adjustment. In the context of exposure to violence and displacement stressors, efforts to prevent child mental illness requires thoughtful consideration of the mental health cascade across generations and the cluster of adversities that can affect family wellbeing.

This section will consider in turn parenting style and parental mental health; family engagement with local culture and structures; and family based mental health interventions. Although this section discusses family factors, the principles can apply to unaccompanied minors who live in homes. There is some evidence that if unaccompanied minors are placed in foster placement, this is better for them than other forms of supported accommodation and potentially same ethnicity foster placements have enhanced outcomes.

Parenting style and parental mental health
Immigrant and refugee families experience major disruptions that can destabilise established nuclear and extended family relationships and hierarchies. This situation can affect long-established gender and parent–child roles. When working with refugee children and their families, it is important to recognise that many caregivers are dealing with their own traumatic experiences and loss while also carrying out their parenting responsibilities.

Shifting family dynamics can exacerbate parental feelings of displacement as they struggle to find their identity. For instance, Somali refugee families resettled in the USA described frustration in wanting their children to uphold traditional dress, language, and religious practices, but felt disempowered and rejected by their adolescents who were rapidly absorbing elements of US culture. Children often learn the host country language and acculturate at a faster speed than their parents. For this reason, they might have to interpret for family members, negotiating with social structures, thus undermining the natural family hierarchy. This new role not only threatens the parents’ position as the so-called knowledgeable elder but also creates situations in which children are made aware of information and issues that are meant to remain within the adult realm. Furthermore, the acculturation gap can lead to parents feeling like they cannot control their children, which can increase the use of more rigid discipline strategies and child maltreatment. There is some evidence to suggest that refugee families have a higher rate of parent to child aggression. This trend is mirrored in migrant families where increasing evidence shows the importance of family relationships and how parent–adolescent conflict is a powerful cultural risk factor for aggressive behaviour. In some research, the refugee experience has been associated with increased risk of intimate partner violence with associated negative effects on children highlighting a need for appropriate interventions to reduce family violence in refugee communities.
The negative effect of parental mental illness needs to be considered for refugee children. If refugee children have arrived with their parents or another adult caregiver, this caregiver is likely to be at increased risk of mental health difficulties because of their refugee experience, especially if they have experienced potentially traumatic events. Studies have shown that this can affect their subsequent parenting, and can be heightened for some ethnicities, those aged older than 44 years, and those with a low material standard of living and not feeling secure in daily life.\(^7\) The added mental health risk to refugees of being a parent was shown in one study with increased odds of depression in Bhutanese fathers resettled in the USA.\(^7\) Migrant populations also have increased rates of postnatal depression, which can affect child development.\(^7\) When learning from the experience of children of Holocaust survivors, a meta-analysis of 32 samples testing the hypothesis of so-called secondary traumatization in their children, showed that in the 12 studies that had non-selected participants, no negative influence of their parent’s experience was evident in the children; however, those parents who were clinical samples did show a difference, with reduced child general wellbeing and adaptation.\(^7\) This finding reinforces the importance of improving parental mental health, especially for individuals with clinical disorders, to enhance child outcomes.

**Family engagement with local structures and culture**

Supporting families in the diverse components of the acculturation process is important because the extent to which a child and their family feel accepted and participate in their local communities might affect the mental health of refugee children (figure 3).\(^7\) This observation has been reported from studies of engagement in the child’s school to language competence and acculturation—the extent to which aspects of the new culture are incorporated and accepted in their lives. Studies have identified more successful families as those with host country language proficiency, job skills, and a support system to replace the extended family.\(^7\)

Several studies have identified the positive effects of better parental engagement with school for children, both in studies of refugee and migrant families. Such interventions have resulted in improved academic performance and reduced levels of depressive and PTSD symptoms.\(^7\) A US study of Mexican mother–child dyads in a school-based intervention improved family problem-solving skills and reduced the effect of maternal depression on the child.\(^7\) Other studies have shown the importance of family in influencing education as well as the roles that a key teacher and their peer group can play, including the Families and Schools Together (FAST) programme for Mexican immigrants to the USA showing reductions in children’s aggressive behaviours.\(^7\) Furthermore, community-based participatory approaches to family-based prevention are showing promise in work with Bhutanese and Somali refugees in the USA.\(^7\)

A systematic review of migrant mental health in the USA highlighted family-based risk factors of high acculturation stress, low English language competence, discrepancies in children’s and parents’ cultural orientation, the non-western cultural orientation, and harsh parenting.\(^8\) Acculturation differences can be substantial with some indications that intercultural conflict and acculturation difficulties might be greater for females and those living in less ethnically diverse communities.\(^8\)

**Family and parenting interventions**

A systematic review of family interventions for traumatised refugees identified only six studies that fulfilled their inclusion criteria and so little can be concluded on an area of such importance, given the role of family relationships, communication, and resilience in preventing mental health problems.\(^8\) Family and parenting interventions have been trialled throughout the world with varying effects, therefore consideration could be given to assessing the effect of cultural adaptations to these programmes, while maintaining core intervention components.\(^8\)

Parenting studies have shown improvements in parenting practice and mental health in refugees and migrant populations. Research with displaced and migrant Myanmarese in a Thai camp, run by a non-governmental organisation, showed that a parenting intervention with parallel groups for children and parents had a significant effect on positive parenting practices, caregiver–child interactions, and family functioning.\(^8\) A randomised controlled trial (RCT) of parent-management training on Somali and Pakistani migrants in Norway showed that parenting practices could be enhanced, with
a decrease in harsh discipline and an increase in positive parenting, although these did not translate into teacher-identifiable effects on children’s conduct and social competence.82 Another programme for Somali-born parents in Sweden showed improvements in children’s behaviour problems83 and an LMIC study of a weekly psychosocial support group for Bosnian mothers had positive effects on mental health for both mothers and children.84 Adding a parenting component to CBT for aggressive behaviour in children resulted in less aggressive behaviour and more appropriate parenting skills in a Dutch study involving a high proportion of migrant families.85 The value of parenting classes has been shown in several studies with suggestions that these should be offered throughout their child’s time at school.86

Studies have shown how refugee fathers can describe their children’s aggressive, loud, or busy behaviour as difficult to handle.87 Hypervigilance and agitation as a result of previous traumatic experiences could exacerbate refugee fathers’ parenting challenges if, for example, they have excessive safety concerns.88 Interventions for fathers have shown the benefit of learning skills, including deliberate retreat when stressed, and improving the quality of interactions with their child, and thus diminishing the negative effect of stress resulting from trauma and migration.89

The involvement of all family members is a powerful approach for family-based preventive mental health interventions. An adaptation of the family-based preventive and strengthening intervention used for families affected by HIV in Rwanda is showing promising acceptability for Bhutanese and Somali families in the USA.90 This intervention, led by refugees for refugees, includes ten modules delivered separately to caregivers and children, with a focus on building a united family narrative. This prevention initiative builds on the principle of task sharing, with its use of refugees to deliver the intervention, and thus provides a scalable model of an intervention, which could be integrated within a range of health and social care services.91

School and peer interventions
Schools have been proposed as key sites for mental health interventions, with particularly compelling arguments for refugee children.92-94 Schools can provide a location where refugee children and their families are able to access a range of services, including health care and linguistic support as well as opening educational opportunities. Schools can foster social–peer relationships and encourage a sense of belonging to the school community and the wider culture—all likely to play important roles in preventing mental illness.95 Conversely, if school factors are not able to support refugee children they can become exposed to peer victimisation and bullying and feel disengaged from academic and social pursuits. Therefore, language acquisition opportunities, institutional supports, instructional practices, and teacher–student engagement strategies are all encouraged.96 Studies of migrant populations show that the classroom environment can influence rates of peer violence, emphasising the importance of supportive environments to assist refugee children. See panel 2 for advice from refugee children on how to help other newly arrived refugees.97

In a systematic review of learning problems in refugee children, major risk factors for learning problems included parental misunderstandings about educational styles and expectations, teacher stereotyping with low expectations, bullying and racial discrimination, pre-migration and post-migration trauma, and forced detention.98 Identified factors for success included high academic and life ambition, parental involvement in education, family cohesion, accurate educational assessment and grade placement, teacher understanding of linguistic and cultural heritage, culturally appropriate school transition, supportive peer relationships, and successful acculturation. A study of more than 270,000 children across 41 countries compared students’ different levels of emotional and cognitive engagement at school and showed that school engagement has distinct cognitive and emotional components.99 Native students had weaker attitudes toward school (cognitive engagement) but greater sense of belonging (emotional engagement) than did migrant students. Students with better teacher–student relationships, teacher support, or a classroom disciplinary climate often had a greater sense of belonging at school and had better attitudes toward school. There is some evidence that inter-ethnic and intra-ethnic bullying might respond to culturally adapted interventions.99

Studies of mental health interventions for refugee children in schools have primarily focused on treating specific mental health problems, predominantly PTSD, which is therefore where the greatest evidence base lies.96 99 These interventions, whether those that have targeted the whole classroom,96 or have been conducted within a tiered system identifying need,99 have some potential as preventive interventions, yet small sample sizes currently limit generalisability.

Interventions for contextual stressors
The broader social context needs to be considered when determining how to prevent mental health problems in refugee children and how to intervene to improve the post-migration environment for refugee populations because social decline can be particularly extensive for newly arriving refugees. For some migrants and refugees, downward mobility is temporary; for most, it extends into the next generation who are also more likely to experience common mental health problems.99 100 In this section, linguistic, housing, financial and occupational, and sociocultural factors are considered. This area, in common with the other factors explored in this Review, has been poorly conceptualised and studied in relation to mental health outcomes for refugee children.
importance of language acquisition. During the initial study of southeast Asian refugees in Canada showed the belonging. Linguistic challenges to build a sense of community and resettlement. In one study, peer-led community support who were not employed during the earliest years of period of resettlement, English-speaking ability had no effect on depression or employment. However, by the end of the first decade, English language fluency was a strong predictor of depression and employment, particularly among refugee women and among those who were not employed during the earliest years of resettlement. In one study, peer-led community support programmes helped refugee adults with cultural and linguistic challenges to build a sense of community and belonging.

Living conditions have been shown to be an important moderator for mental health problems in migrant populations. These are related to both the actual physical conditions of the home and the neighbourhood levels of deprivation, violence, and ethnic density. Migrants living in lower ethnically dense neighbourhoods had worse depression due to discrimination and poor social support. Moving from high-poverty areas to low-poverty areas has been shown to decrease the likelihood of continued exposure to violence and alcohol abuse. Another study showed how moving low-income families to low-poverty neighbourhoods had particularly beneficial effects for girls with better mental health and educational achievement and fewer risky behaviours. Living in unsafe neighbourhoods has been associated with an increased risk of PTSD in Haitian migrants and depression in unaccompanied minors. Psychosocial interventions to target social disadvantage might also reduce longer-term increased risk of psychosis in refugee and migrant populations.

The importance of working and job satisfaction has been shown for refugee adults, which then can affect their parenting practices, as described above. Situational and psychosocial factors can support career adjustment of migrant women. Unemployment and

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Panel 2: Refugee voices—unaccompanied minors’ and refugee adolescents’ recommendations for newly arrived populations

Qualitative interviews were conducted with 40 refugee adolescents who had been recipients of mental health services across three sites in UK. They were asked how best to support the mental health of newly arrived refugees in their schools. Their responses covered two broad areas: general settling (language, making friends, and asylum issues) and how mental health services could identify and help a child in distress.

**General help**

The provision of language classes was prioritised by a third of the refugee children, followed by extracurricular activities, advice on how to live in the UK, and help with asylum applications. Host language acquisition could facilitate access to education, friendships, managing other aspects of their lives and participating in therapeutic sessions.

“I needed English, that’s it, when they understand, they can sort their problems out. ‘Yeah. You can communicate on the phone. You can write letter and you can do anything’” [male, 16 years]

Many discussed the importance of making new friends, having fun, and the need for distractions from preoccupations about current or previous difficulties. They suggested sports activities, drama, and “silly stuff” to take place both at and outside school. They had valued having a friend from the same country of origin initially but later wanted local friends.

“Probably like hobbies on weekends. To do anything because like I told you I’m just sitting at home and I’ve got nothing to do.” [male, 16 years]

“...introducing them to English teenagers, let them spend time with them, make friends with them, ... See the difference between the two cultures.” [male, 17 years]

Finally, some of the young people mentioned the importance of help with asylum applications:

“Most helpful to be helped with asylum application, not to return to home country.” [male, 17 years]

**The role of mental health services**

The young people were asked how mental health services could better address the needs of new refugees. There was wide variation in responses as to whether all refugee children should be initially seen by mental health services. More than half thought that everyone should be seen briefly so as to lower the hurdle for further contact. A quarter thought services should wait for teachers to make referrals who could also encourage the young person to attend any appointments.

“Yeah I think the teachers should tell you because like if a teacher see a student behaviour changing and seeing that he’s getting bullied or something even though he doesn’t want to see a counsellor I think he should see a counsellor and talk to them if a person is getting bullied cuz bullied people do lead to suicides and that’s not good.” [male, 17 years]

When asked when the appointment should be made, most thought that this should happen in the first 3 months.

“I think immediately because when they first came because they had so many problems...they don’t know English, they don’t know this culture or that’s why I think straight away, after a month when they come here, I think they really need it.” [male, 17 years]

“Maybe a few months later, because they could like learn how to cope.” [female, 15 years]
migration-related stressors impacted on poor quality of life measures while contact with friends had a positive impact.\textsuperscript{111} Reports of suicidal ideation among Bhutanese refugees in the USA highlights the association of symptoms with an inability to find work.\textsuperscript{114}

Alongside indicators of social functioning are those of belonging. An Australian longitudinal study investigating 97 refugee adolescents showed how indicators of belonging—especially subjective social status in the broader community, and perceived discrimination and bullying—were key factors associated with wellbeing.\textsuperscript{115} Other studies of refugees have highlighted the importance of community support\textsuperscript{43,116} and how those without social support were more hopeless and distressed.\textsuperscript{117} A notable intervention to help Syrian refugees in Jordan conceptualised that helping others was a basic psychological need, which was encouraged in the participants, and, alongside feeling competence in a task, improved feelings of depression but not PTSD.\textsuperscript{118} Increased social support is often associated with feelings of belonging as demonstrated by a study of unaccompanied asylum-seeking children where those with better social support achieved more even if they were experiencing significant PTSD symptoms.\textsuperscript{119}

Access to services
An essential aspect to address in any intervention to improve mental health prevention and treatment is to tackle the real and perceived barriers to accessing mental health care for refugee populations.\textsuperscript{2,32} For example, in a large Danish study, fewer refugee children accessed mental health services than did native-born peers.\textsuperscript{111} There are several key cultural, social, and personal factors that influence this difference, including poor mental health literacy in refugee populations, often a consequence of coming from very different health-care conceptualisations and systems.\textsuperscript{122} Many of the countries refugees come from have few mental health structures and have cultures where mental illness might be stigmatised, leading to distrust of the system.\textsuperscript{112,113} Children are dependent on carers to access services and their carers might require interpreting services, or financial support if services need to be purchased.

Greater emphasis is often placed by refugee communities on reaching for and receiving support from respective communities of faith.\textsuperscript{114} Studies have identified how young refugees, who often value self-reliance, are more likely to seek informal psychosocial support from friends in the first instance.\textsuperscript{112} The low priority placed on mental health by adult refugees highlights the hierarchy of need for practical solutions to social, legal, and economic difficulties compared to health, especially mental health. Services might need to offer both practical and psychological support, as the data suggest that high levels of need are likely to continue for a few years after arrival, thereby supporting the importance of a prevention focus for services alongside treating clinical cases.\textsuperscript{116–117}

Conclusions
Interventions to prevent mental health problems for refugee children in high-income countries cannot assume that individual or group treatment interventions for specific disorders can necessarily be adapted to become preventive interventions. Mental ill health among refugee children is a multi-faceted phenomenon that needs to be tackled within a wide range of sectors that influence socioeconomic determinants of health including housing, education, work, immigration, and the political arena.\textsuperscript{119} What is needed is a continuum of care and multi-level and cross-sectoral intervention models that can address the multitude of acculturative and resettlement stressors faced by resettled refugees.\textsuperscript{43}

The studies identified in this review of preventive interventions have highlighted the role of specific interventions, such as those treating PTSD, alongside parental, family, school, and broader cultural interventions. The results therefore demonstrate the importance of distal and proximal social variables, as well as the consequences of biological, psychological, and community-level functioning in refugees. Any attempt to address the needs of this population must attend to the complexity of the broader context in which refugee children arrive. Within the development of preventive interventions, it might be that focusing on high-risk populations of refugee children would have the greatest potential impact. These would include attention to the needs of unaccompanied minors, trafficked and undocumented children, former child soldiers, those with a history of abduction, torture, parental and child detention, and high residential mobility, and those experiencing high rates of bullying.\textsuperscript{120–131} Furthermore, little is known on how to support other high-risk groups, such as enhancing support and education for refugee and migrant children with disabilities.\textsuperscript{132}

Some basic questions warrant urgent attention. These include whether interventions directed at host populations (none of which were identified in our search) can improve community engagement and broader social inclusivity for newly arriving refugee children and families.\textsuperscript{111} How, when, and whether existing interventions can be adapted to the cultural sensitivities of specific refugee situations needs to be determined, as adapting interventions is likely to enhance implementation challenges and improve the reach of services available.\textsuperscript{133} For example, enhancing existing interventions with culturally sensitive supplements, has been tried alongside a universal school-based intervention for anxiety (the FRIENDS programme).\textsuperscript{97} Interdisciplinary research and novel analytic methods can potentially, therefore, complement more focal research.\textsuperscript{111}

The world today is witnessing the largest humanitarian crisis since World War 2. Issues of refugee resettlement from war zones to higher income settings is a topic of great public debate with a vast array of responses from the international community. Given the massive cultural
and contextual divide facing many refugees from low-resource and conflict-affected settings who resettle in high-income countries, clinically oriented intervention models are necessary but not sufficient to advance effective responses. There is now the possibility to conduct large-scale, courageous interventions, where public policy in refugee status determination and resettlement strategies can, if there is the political will, inform the question of the prevention of mental health problems in refugee children and adolescents were included.

Search strategy and selection criteria

To inform this narrative review, a comprehensive and broad search was undertaken across medical, sociological, and educational databases to collect as much information as possible on preventive interventions for refugee children and their mental health needs. To capture the breadth of interventions that might affect the mental health of refugee children, preventive interventions were hypothesised to lie within several social institutions, including families, schools, the local community, and employment and housing opportunities. We searched ten databases that included clinical (Embase; MEDLINE; PsycINFO; Cochrane); health economic (NH EED); social care (ASSIA, Sociological Abstracts); education (ERIC), and grey literature (Health Management Information Consortium), as well as key online web resources including UNHCR (the UN Refugee Agency); WHO; Médecins Sans Frontières (MSF); and the Oxford Refugee Studies Centre. There were no language exclusions and the databases were searched from inception (ranging according to the database from 1947 to 1967) until May 8, 2017. The search terms on MEDLINE, for example, expanded to 323 steps with search groupings that included descriptors for individual refugee or forced migrants; potential countries of origin; age range of participants; types of intervention including family, school, and individual; as well as relevant outcomes. 17 235 records were identified leaving 12 854 records to investigate after duplicates were removed. These records were then reviewed by MF and 243 abstracts were screened so that all studies that could inform the question of the prevention of mental health problems in refugee children and adolescents were included.

implications not only for today’s refugee children but also for their families, the communities in which they live, and subsequent generations.

Contributors

MF designed the literature search with Sarah Stockton; analysed and interpreted the data, compiled the figures and tables, and wrote the first draft of the Review. TSB reviewed and contributed to the Review content.

Declaration of interests

MF declares no competing interests. TSB held NIH grants 1U01 MD00616-01, and U19 MH110989-01, during the conduct of the study.

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