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DISASTER PSYCHIATRY: TRAUMA, PTSD, AND RELATED DISORDERS (E FOA AND A ASNAANI, SECTION EDITORS)

The Relationship Between Post-Migration Stress and Psychological Disorders in Refugees and Asylum Seekers

Susan S. Y. Li[1] · **Belinda J. Liddell**[1] · **Angela Nickerson**[1]

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Abstract Refugees demonstrate high rates of post-traumatic stress disorder (PTSD) and other psychological disorders. The recent increase in forcible displacement internationally necessitates the understanding of factors associated with refugee mental health. While pre-migration trauma is recognized as a key predictor of mental health outcomes in refugees and asylum seekers, research has increasingly focused on the psychological effects of post-migration stressors in the settlement environment. This article reviews the research evidence linking post-migration factors and mental health outcomes in refugees and asylum seekers. Findings indicate that socioeconomic, social, and interpersonal factors, as well as factors relating to the asylum process and immigration policy affect the psychological functioning of refugees. Limitations of the existing literature and future directions for research are discussed, along with implications for treatment and policy.

Keywords Refugee · PTSD · Mental health · Post-migration stress

Introduction

In 2015, the number of refugees, asylum seekers, and internally displaced persons around the world was estimated to exceed 60 million [1]. The refugee experience is characterized by violence, war, and persecution, which can have long-lasting effects on psychological well-being [2]. Furthermore, for those refugees and asylum seekers who are resettled, the migration process can also present significant challenges that can affect the mental health of this already vulnerable population. This paper will critically review the existing literature on the association between post-migration stressors and mental health outcomes in adult refugees and asylum seekers, and outline strategies for research in this area to shape policy and practice. While we recognize that the experience of refugees and asylum seekers may differ considerably, the term "refugees" will be used hereafter to represent both refugees and asylum seekers.

Refugee Trauma and Mental Health

Research indicates that prevalence rates of psychological disorders in refugee groups are elevated compared to the general population [2–4]. High rates of post-traumatic stress disorder (PTSD), depression, and anxiety have been reported in refugee populations with these disorders often co-occurring [2, 5–7, 8•, 9]. A meta-analysis of 181 studies of conflict-affected populations, including refugees and displaced persons, estimated that PTSD and depression are prevalent at 30.6 and 30.8 %, respectively [9]. Importantly, a recent systematic review of the literature on the long-term mental health of adult refugees shows that this higher risk of mental health problems persists, even after several years post-resettlement [8•].

Research investigating predictors of mental health outcomes in refugees has predominantly focused on the negative impact of pre-migration factors, such as trauma exposure on mental health outcomes [5, 10, 11]. Studies indicate not only that refugees are typically exposed to numerous different types of potentially traumatic experiences in their home

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✉ Angela Nickerson
anickerson@psy.unsw.edu.au

[1] School of Psychology, University of New South Wales Australia, Sydney, NSW 2052, Australia

countries and during displacement but also that these experiences are often repeated and prolonged in nature [12, 13•]. Overall, research evidence suggests that there is a significant dose effect of refugee trauma on mental health, whereby greater exposure to trauma is associated with higher severity of psychiatric symptoms, including PTSD [9, 14–16].

While pre-migration trauma is a significant predictor of mental health outcomes, the literature in this field has been criticized as being skewed in its focus on these events, rather than considering the psychological impact of post-migration factors [17]. More recently, research attention has shifted toward understanding how post-migration stressors experienced in the settlement environment affect psychological outcomes, such as depression and traumatic stress symptoms [18]. Studies that have directly compared the impact of pre-migration and post-migration factors on the psychological well-being of refugees have found that post-migration factors are significantly associated with adverse mental health outcomes over and above the impact of pre-migration trauma [3, 19, 20, 21•, 22]. This article will review the literature on the association between post-migration difficulties and refugee mental health. For the purpose of this review, we have categorized post-migration difficulties into the following three groups: socioeconomic stressors, social and interpersonal stressors, and stressors related to the asylum process and immigration policies.

Post-Migration Stressors and Refugee Mental Health

The Effect of Post-Migration Socioeconomic Factors on Refugee Mental Health

Socioeconomic factors, such as financial and housing security, are associated with the psychological well-being of resettled refugees [3]. Many refugees experience financial difficulties in the settlement environment that include obtaining financial security and finding suitable employment. Refugees may face multiple barriers to employment, including visa restrictions, poor language skills, qualifications from their home countries not being recognized in the resettlement country, discrimination, lack of vocational skills, and psychological or physical barriers [23]. Accordingly, unemployment rates are higher in refugees compared to host country populations [23–25]. Refugees are also often underemployed (i.e., employed in positions below their qualification level or skills set) [23–25]. Research suggests that refugees with restricted access to economic opportunities, as a result of limited work rights and employment prospects, have worse mental health outcomes compared to those with greater access to these economic opportunities [3]. Unemployment is a strong risk factor for depression and anxiety in refugee populations [26], alongside pre-migration trauma [27]. In a 10-year longitudinal study of Southeast Asian refugees, unemployment among men was found to be a particularly strong risk factor for depression [28]. These findings suggest that access to sustainable employment is a key factor influencing the mental health of resettled refugees.

Financial difficulties and resource limitations in host countries mean that many refugees have limited access to stable housing in the settlement environment, which is an important potential source of psychological distress. In their meta-analysis of 59 studies, Porter and Haslam [3] found that refugees with access to secure private accommodation had better mental health outcomes compared to those in institutional or temporary accommodation. Consistent with this, correlational studies have found that impairment in global functioning among torture survivors settled in the USA was associated with unstable housing [29]. Qualitative and survey research conducted in the UK further suggested that the negative impact of insecure housing may be related to its social and cultural impacts, such as poor continuity of community relationships and lack of safety [30]. Taken together, the research evidence on post-migration socioeconomic factors affecting refugee mental health suggests that financial concerns and difficulties with accessing secure housing represent substantial barriers to positive psychological adjustment upon resettlement.

The Impact of Post-Migration Social and Interpersonal Factors on Refugee Mental Health

The process of uprooting one's life and adjusting to an unfamiliar physical and cultural environment poses significant social and interpersonal challenges for refugees. The social and interpersonal difficulties that can result from forced displacement may include ongoing family separation, social isolation, and discrimination from the host country, as well as the loss of social identity tied with former community and cultural groups.

Separation from family represents a significant barrier to positive psychological outcomes in refugees. Research has demonstrated that concern about family overseas is associated with anxiety and somatization in refugee groups [31] and that the relationship between past personal trauma exposure and psychological distress may be mitigated by family reunification [32]. Consistent with this, a study of Iraqi refugees in Australia found that those who were separated from immediate family members had greater mental health-related disability and elevated PTSD and depression symptoms, compared to those who were not separated from immediate family [33]. Furthermore, this study found that intrusive fears for family who remained in Iraq accounted for the higher risk of psychopathology, independently of past trauma exposure and current living difficulties. This is further supported by findings from qualitative interviews with members of refugee communities

in Australia, which indicated that the worry and stress related to family separation were associated with poor concentration and impaired capacity to find employment and develop language skills [34]. In addition, while social isolation among refugees is linked with worse mental health outcomes [19, 35, 36], social support from one's own community is a potentially important protective factor against mental health difficulties [31].

Specific social factors that may be especially important for refugee mental health include perceived discrimination and change in social roles associated with displacement [37, 38]. Specifically, research suggests that social exclusion, resulting from discrimination in the settlement environment, negatively impacts quality of life among refugees [38] and that perceived discrimination is strongly associated with symptoms of depression in refugees, even after controlling for pre- and other post-migration factors [39, 40]. In addition, qualitative research with refugees indicates that changes in social roles can be especially difficult to adjust to and may adversely affect positive psychological adjustment [37]. For example, qualitative interviews with refugees from African backgrounds resettled in Australia found that changes to gender roles, such as when males lose their status as the primary breadwinner and there is financial independence between spouses, can exacerbate interpersonal difficulties in the family, which has been related to domestic violence in refugees [41]. Changes in socioeconomic status may also contribute to the impact of shifting social roles on refugee mental health. Across studies, refugees who are more highly educated and had higher socioeconomic status pre-displacement show poorer mental health outcomes after settlement [3]. This may be due to the greater loss of socioeconomic status experienced upon resettlement, which can contribute to settlement stress. Taken together, this evidence highlights that social and interpersonal difficulties experienced by refugees in the post-migration environment are important factors contributing to mental health outcomes.

The Impact of the Asylum Process and Immigration Policies on Mental Health

As destination countries face a higher influx of asylum seekers, there is a growing trend toward more restrictive asylum policies, including increased periods of mandatory detention, extended processing times, and the implementation of temporary (rather than permanent) visas for refugees. Accordingly, the asylum-seeking experience is often fraught with uncertainty and requires the individual to navigate complex legal procedures. Research has indicated that the process of seeking asylum substantially contributes to elevated mental health symptoms [5, 21•, 42, 43]. Below, we review the literature on stressors associated with the asylum process, including detention, extended processing times, and insecure visa status.

Globally, mandatory detention is a common interception policy implemented in response to the irregular entry of migrants, including asylum seekers. Aspects of immigration detention which may negatively impact mental health include the prolonged and uncertain duration of detention; lack of access to legal services and representation; proximity to others experiencing high levels of distress; lack of agency (i.e., in relation to one's environment and actions); lack of control over asylum claim processing times; and ongoing separation from family [44]. A systematic review of the impact of immigration detention on mental health outcomes conducted by Robjant and colleagues [45] found that high levels of anxiety, depression, and PTSD were commonly reported by detainees and that levels of psychological distress increased with time spent in detention. Findings from a study of asylum seekers detained in a remote Australian detention center suggested that placement in immigration detention increased mental disorder prevalence rates threefold in adults [46]. Another study comparing two groups of Afghan asylum seekers in Japan who had equivalent levels of pre-migration trauma found that, compared to those who were never detained, the group that had a prior experience of immigration detention reported significantly higher levels of anxiety, depression, and PTSD 10 months following release from detention [47]. There is also evidence that prolonged immigration detention may have an especially adverse effect on the mental health of refugees [45–50]. A study of Mandaean refugees in Australia found that participants who had been detained for longer than 6 months had more severe depression and PTSD symptoms compared to those who had experienced a shorter period of detention or none at all, with these adverse effects enduring even after an average of 3 years residing in the community [49]. The negative impact of prolonged detention on mental health is also evidenced by a longitudinal study of asylum seekers detained in the USA, some of whom had been released into the community at follow-up [48]. This study found that symptoms of depression, anxiety, and PTSD all improved in those released from detention, while symptoms deteriorated in those remaining in detention, despite there being no difference in symptom severity between these groups at baseline. While this study reported an initial improvement of symptoms following release from detention [48], other studies have suggested that the negative effects of detention persist over time, even years after release [49, 50]. Together, this evidence suggests that prolonged immigration detention is detrimental to refugee mental health, with potentially lasting negative effects.

Research suggests that mental health outcomes deteriorate the longer the asylum-seeking process takes. For example, a community-based study of Iraqi asylum seekers in the Netherlands compared those who had been seeking asylum for more than 2 years to those who had been seeking asylum less than 6 months and found that a prolonged asylum

procedure predicted higher rates of anxiety, depression, and somatoform disorders, but not PTSD [43]. Moreover, this study found that experiencing a protracted asylum-seeking process had a stronger impact on psychopathology than pre-migration trauma exposure. A follow-up study further revealed that the positive relationship between an extended refugee determination process and psychopathology was partly attributable to exposure to greater living difficulties over time [51]. These living difficulties included family conflict, unstable housing, financial difficulties, discrimination, and stressors directly related to navigating the asylum procedure, such as responding to asylum application rejections, immigration detention, and ongoing temporary protection.

In addition to the refugee determination process itself, the application outcome may also affect mental health. In a longitudinal study of asylum seekers in Australia, those whose refugee claims were rejected maintained high levels of PTSD, depression, and anxiety, compared to those whose claims were accepted, where substantial improvements in symptom severity were observed [52]. A more recent study of Australian asylum seekers found that the greater the number of asylum claim rejections experienced, the more likely an asylum seeker was to be diagnosed with PTSD, regardless of pre-migration trauma exposure [27].

Once refugee status is determined, a refugee may be granted either a temporary or permanent protection visa. Temporary protection visas do not guarantee permanent residency in the settlement country and are only valid for a specified amount of time, whereby holders must reapply for continued protection prior to the expiry of the visa [53]. Conditions associated with temporary visas vary between countries and may include restricted access to settlement services, limited work and study opportunities, designated places of residence, and little or no prospect of family reunification [54]. The existing research suggests that the application of temporary visas rather than permanent protection visas has an adverse impact on mental health, including PTSD, depression, and anxiety disorders [55, 56]. There is also evidence that refugees who hold temporary protection visas face greater living difficulties compared to those with permanent protection visas [55, 56]. Temporary protection also has long-term consequences for mental health outcomes: after adjusting for baseline differences, a 2-year longitudinal study showed that refugees holding temporary protection visas evidenced increased anxiety, depression, and overall distress, coupled with lower motivation to learn English, compared to those on permanent protection visas, who showed improvement in psychological symptoms and English language skills over time [56]. A second longitudinal study of Iraqi refugees in Australia demonstrated that change in visa status from temporary to permanent was associated with decreased PTSD and depression symptoms, compared to individuals who consistently held permanent visas. This reduction in symptoms was mediated by decreases in daily living difficulties over time [57]. This research supports the negative mental health impact of stressors experienced in relation to the refugee determination process and insecure visa status.

Discussion

The evidence reviewed here is part of the growing body of research investigating the various post-migration factors that affect mental health in refugees. These factors, including socioeconomic and interpersonal difficulties, as well as stressors relating to the asylum-seeking process and immigration policy, have all been associated with poorer mental health outcomes. These factors should not be considered in isolation but rather, together with past trauma exposure, may interact to negatively impact mental health and well-being. For example, temporary visa status or discrimination may restrict an individual's employment opportunities, and this subsequent financial burden may affect a refugee's social standing. Similarly, limited opportunities for employment may affect a refugee's ability to find stable affordable housing, and this increased instability may then lead to greater social isolation. Taken together, this research highlights the importance of understanding the impact of stressors experienced in the settlement environment on psychopathology in this vulnerable population. However, further research is required to address the many gaps that remain in understanding these pathways. These opportunities are discussed below, along with particular challenges faced by researchers in this area and the potential implications for treatment and policy.

Limitations of the Existing Research

The vast majority of research investigating the impact of post-migration stressors on refugee mental health has been cross-sectional in nature. Longitudinal research capturing the impact of the ever-changing post-migration environment has been limited to date. One particular challenge accounting for the lack of longitudinal studies in refugee mental health research is the high mobility of this population in the settlement environment, which makes long-term follow-up difficult. Nevertheless, longitudinal research is critical for elucidating the directionality of the relationship between post-migration stressors and psychological distress. Specifically, these studies would provide evidence regarding whether experiencing post-migration stressors causes greater psychopathology or poor psychological functioning reduces a refugee's ability to cope with these stressors. For example, the relationship between social isolation and poor mental health outcomes may be bi-directional, whereby social isolation may worsen psychological symptoms, and poor psychological functioning may cause greater social withdrawal. While there is emerging evidence

that high levels of psychological symptoms may impair psychosocial adaptation in refugees [58•], there is a need for systematic longitudinal research to determine the direction of influence between mental health and post-migration stressors.

Second, the majority of research investigating the effect of post-migration stressors on mental health in refugees has focused on identifying *which* factors most strongly predict psychopathology, rather than *how* these factors affect mental health. Thus, the psychological mechanisms underlying these relationships are poorly understood. Recent research has begun to address this gap in the literature, exploring constructs such as self-efficacy [59•] and emotion regulation difficulties [13•]. In their study of Kurdish and Afghan refugees, Sulaiman-Hill and Thompson [59•] found that greater self-efficacy was associated with lower psychological distress, as well as positive educational and employment outcomes in refugees. Given this, it is possible that decreased self-efficacy may mediate the relationship between the loss of socioeconomic status and the poor psychological functioning. In their study of trauma-exposed refugees in Switzerland, Nickerson and colleagues [13•] found that emotion regulation difficulties partially mediated the relationship between post-migration living stressors and PTSD, as well as depression, in addition to fully mediating the relationship between trauma exposure and psychopathology. While both studies are cross-sectional in nature, precluding inferences about causality, they identify potential mechanisms that may explain how pre- and post-migration refugee experiences can lead to psychopathology. Further systematic empirical research, elucidating the psychological mechanisms that underpin psychological distress in refugees, is essential to inform more effective psychosocial interventions. In addition, the implementation of longitudinal and experimental designs has the potential to greatly increase understanding of the causal pathways leading to mental health difficulties in refugees.

Finally, there is a lack of research that directly explores the role of post-migration factors in moderating treatment outcomes. Clinicians working with survivors of torture and trauma often face the challenge of implementing evidence-based interventions in the context of significant post-migration stress. While the research reviewed above demonstrates that post-migration factors affect psychological functioning, the ways in which these factors interact with treatments remain unclear. There is emerging evidence to suggest that experiencing varied stressors in the post-migration environment may differentially affect treatment outcome. For example, in a recent study, Drozdek and colleagues [60•] examined the effect of legal status on the efficacy of a trauma-focused group intervention in reducing anxiety, depression, and PTSD symptoms in Afghan and Iranian refugees. Interestingly, the researchers found that the treatment was equally efficacious for both asylum seekers and refugees who had already been granted legal status, while a third group of claimants who were granted legal status during the course of the intervention showed the greatest reduction in symptoms. This highlights the importance of considering post-migration contextual issues during treatment.

Challenges Faced by Research into Post-Migration Stress

One particular challenge faced in the field of refugee mental health research is the heterogeneity of cultural backgrounds, persecution contexts, and traumatic experiences across (and within) refugee groups, which has implications for the generalizability of research findings. In addition, the types and extent of stressors experienced are likely to vary for refugees of different demographics. For example, economic disadvantage has been demonstrated to be affected by ethno-racial discrimination, whereby refugees from varied backgrounds face different levels of discrimination in accessing housing [61–63], as well as in employment [25, 64]. The specific source country of refugees can also affect mental health outcomes more directly. Porter and Haslam [3] found that refugees whose country of origin sustained ongoing conflict had worse mental health outcomes than if the conflict had been resolved. Furthermore, Steel and colleagues [9] found the political terror ranking of the country-of-origin was a significant predictor of PTSD and depression among refugees and conflict-affected groups. This is consistent with findings suggesting that worry about family remaining in the country of origin is associated with worse psychological functioning [33], as this worry may be amplified if there is ongoing conflict or uncertainty about conflict resolution in the home country. Improved mental health outcomes have also been associated with time since the resolution or exposure to conflict [9]. Given this, it is paramount that contextual factors, such as cultural background and country of origin, are considered when investigating the effects of post-migration stress on refugee mental health.

Another challenge associated with research into post-migration stress is the variability of the settlement environment. Countries all over the world host refugees, and each presents a unique set of factors that influence the post-migration experience, part of which is due to locally implemented interception and migration policies. The type and severity of post-migration stressors can differ widely between high-income resettlement countries, where the majority of research with refugees has been conducted, and low-middle income countries, where most of the world's refugees are hosted [65]. The existing body of research conducted with refugees residing in refugee camps suggests that post-displacement stressors are significantly associated with psychological distress in these contexts [66–68]. However, there is a clear distinction between the types of post-displacement stressors experienced in these environments compared to the high-income countries. For example, refugees residing in

camps may experience difficulties relating to physical safety and basic needs, such as adequate shelter, access to clean water, and sanitation [68], while these may not be as relevant to refugees resettled in high-income nations. Similar challenges meeting basic needs may be faced by individuals displaced to post-conflict settings or countries with ongoing conflict [69]. This highlights the importance of further research concerning the factors influencing refugee mental health in low-middle-income countries.

Implications for Treatment and Policy

The impact of resettlement stressors on mental health over and above that of pre-migration trauma has substantial implications for practice and service delivery. In particular, the potentially deleterious impact of post-migration difficulties highlights the need for interventions to consider psychological distress in refugees from a psychosocial perspective, rather than simply from a trauma-focused perspective [17, 18, 70, 71]. Findings from randomized controlled trials conducted over the past decade have provided strong evidence for the efficacy of trauma-focused interventions for PTSD in refugees [72•, 73, 74]. However, a meta-analysis comparing trauma-focused interventions and nonspecific interventions for PTSD found that problem complexity (including being a refugee) diminished the superiority of specific trauma-focused intervention [75]. This has led some researchers to argue for an integrative approach to treatment, whereby interventions target daily stressors and trauma experiences in a sequential manner [70]. Overall, while trauma-focused therapies have demonstrated efficacy in reducing PTSD symptoms, the research on how to best manage psychosocial difficulties experienced by refugees is still lacking. Furthermore, the comparative efficacy of interventions that target psychosocial difficulties first, versus moving directly into trauma-focused treatment, is yet to be directly tested.

Research on the effects of post-migration stress on refugee mental health also has implications for policy development. Modifying key post-migration factors via migration and social policies could substantially alleviate the mental health burden of refugee groups. For example, policies and programs that support refugees to find employment and build social capital and connection in their new communities could substantially reduce mental health symptoms and adjustment difficulties. In addition, moving away from policies that have detrimental effects on refugee mental health, such as prolonged detention and ongoing temporary protection, may remove additional stressors experienced by refugees and result in better mental health outcomes. The literature on the psychological impact of post-migration stressors represents an important potential resource for policy makers to draw on when developing policies to optimize well-being in this vulnerable population.

Conclusion

Post-migration factors are important predictors of refugee mental health and must be considered alongside pre-migration trauma to understand the psychological effects of the refugee experience. Stress relating to socioeconomic difficulties, social and interpersonal challenges, and the asylum process and immigration policies in the settlement environment affects mental health outcomes in refugees. Closer examination of the underlying mechanisms that influence the relationship between post-migration stressors and refugee mental health, as well as longitudinal research to discern causality, would be useful to inform policy and interventions that promote better psychological functioning among resettled refugees.

Compliance with Ethical Standards

Conflict of Interest Susan S. Y. Li, Belinda J. Liddell, and Angela Nickerson declare that they have no conflict of interest.

Human and Animal Rights and Informed Consent This article does not contain any studies with human or animal subjects performed by any of the authors.

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