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Displacement stressors, trauma exposure, and mental health: a survey of asylum seekers and refugees

Authors:

1. KWOK, Robin Ka Ho
   ORCID ID: 0000-0003-3841-9715
   Affiliation: School of Nursing, The Hong Kong Polytechnic University
   Email: robin.kwok@polyu.edu.hk

2. HO, Grace Wing Ka
   ORCID ID: 0000-0003-4703-5430
   Affiliation: School of Nursing, The Hong Kong Polytechnic University
   Email: grace.wk.ho@polyu.edu.hk

Corresponding author:

HO, Grace Wing Ka

Email: grace.wk.ho@polyu.edu.hk

ABSTRACT

Background: The mental health of asylum seekers and refugees (ASRs) is a pressing global concern, with complex trauma histories and environmental stressors contributing to heightened vulnerability. This study investigates the mental health and service utilization patterns of ASRs in Hong Kong, where unique policy landscapes pose additional challenges to this population. *Methods:* A cross-sectional survey was conducted with 100 ASRs in Hong Kong. Participants completed measures assessing displacement-related stressors, trauma exposure, mental health symptoms (depression, anxiety, stress, PTSD/CPTSD), and mental health service utilization. *Results:* Participants reported high levels of displacement-related stressors and trauma exposure. The majority exhibited symptoms of depression, anxiety, and stress, with a significant proportion screening positive for PTSD/CPTSD. Despite high mental health needs, their service utilization rates were low. Trauma exposure and displacement-related stressors were significantly associated with poorer mental health outcomes, but not with service utilization. *Conclusion:* ASRs in Hong Kong face significant mental health challenges, influenced by both pre- and post-migration factors. Findings underscore higher rates of mental distress in the present sample compared to prior studies in ASRs and other local surveys. While trauma-informed care is crucial, efforts to improve mental health service access and reduce systemic barriers are needed with targeted strategies and policy changes.

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BACKGROUND

In 2022, the United Nations High Commissioner for Refugees (UNHCR) estimated over 108.4 million people were forcibly displaced worldwide, of which 29.4 million were refugees and 5.4 million were asylum seekers (1). Asylum seekers are individuals who have fled their home country and are seeking international protection, but have not yet received the legal determination as to whether they can remain in the country of resettlement or face deportation. Refugees, on the other hand, are individuals who have been legally recognized as having fled their country due to conflict, persecution, or severe human rights violations and have been granted the right to stay in the country of resettlement. Asylum seekers and refugees (ASRs) often present with complex trauma histories that negatively impact their mental health. Further, the stress of migration and assimilating in their country of relocation can also increase their risk of developing mental health problems. As the number of ASRs are rising globally, it is crucial to establish an in-depth understanding of their mental health, and their associated risks and needs in local contexts, to inform and implement programs and policies to support this highly vulnerable population.

Mental Health of ASRs

A recent meta-analysis examining mental illness in ASRs across 15 countries showed the prevalence of posttraumatic stress disorder (PTSD) and depression are significantly higher among ASRs compared to the general population (31% versus 4% for PTSD; 32% versus 12% for depression) (2). The ecological model of refugee distress suggests the sources of distress among ASRs are complex, multifaceted, and can stem from four ecological levels (individual, family, community, and society) before, during, and after their migration (3). Indeed, one systematic review identified 11 predictors that affect ASRs' mental well-being (4), including the length of asylum process and duration of stay, residency status, poor social integration and weak social network, financial and employment problems, and pre-migration trauma. Together, these findings underscore the importance of considering both past exposures and ongoing environmental stressors when evaluating and addressing the mental health needs of ASRs.

In addition to poorer mental health, ASRs are also less inclined to seek or engage in the mental health services that they need. For instance, a study conducted in Germany showed that 55% of adult ASRs screened positive for emotional distress, but only 20% perceived a subjective need for therapeutic care (5). Among those who recognized the need for care, 43% did not receive any form of support. Moreover, a systematic review indicated ASRs had lower rates of mental health and psychosocial support services utilization, despite high mental health morbidity, which can be attributed to language barriers, cultural stigma, low awareness, and acculturation stress (6). The lack of cultural sensitivity among local mental health service providers can further exacerbate the challenges of navigating and accessing appropriate services for ASRs. Some ASRs may prefer to engage with care workers who share their ethnic background and speak their native language, as this can better foster trust and facilitate

culturally appropriate relationships. Therefore, it is also imperative to understand the local and contextual factors that influence their propensity to seek support for mental health issues.

ASRs in Hong Kong

Historically known as the "Port of First Asylum", Hong Kong received more than 200,000 people who fled during the Vietnam War (7). However, the 1951 United Nations Convention relating to the Status of Refugees and its 1967 Protocol, the two main international instruments on refugee status protection (8), were never formally instituted in Hong Kong, and the government holds the stance of "maintaining a firm policy of not granting asylum and not determining or recognizing refugee status of anyone" (9). Currently, there are approximately 14,900 non-refoulement claimants in Hong Kong (8), but the substantiation rate has been as low as 0.56% (10). Since 2014, individuals in Hong Kong seeking non-refoulement protection must navigate the 8-step Unified Screening Mechanism (USM), a process that typically spans years before the application is finalized (11). During this process, the government provides a humanitarian assistance package of HK$3,200 per month (12), and the claimants are prohibited from working or receiving social security benefits as their stay in Hong Kong is considered unlawful. In comparison, the poverty line in Hong Kong was HK$4,000 in 2020 (13).

The policy landscape in Hong Kong presents unique challenges for individuals with a background of forced displacement. Factors such as the disproportionately low success rate in obtaining legal status, prolonged application and review periods, and compromised economic self-sufficiency may all contribute to the development or exacerbation of mental health problems among ASRs in Hong Kong. Wong, Cheung (14) conducted a cross-sectional study and found 36% of African ASRs in Hong Kong reported clinically significant level of depression, and nearly three out of four (72%) reported difficulties accessing medical facilities. Another recent study (Ng, Chung (8) surveyed 47 ASRs in Hong Kong and identified three recurring themes associated with poorer mental health: poverty, fear of being sent home, and lack of the right to work. These findings emphasized the multifaceted challenges faced by ASRs in Hong Kong, but research in this area remains scarce.

The present investigation assessed the mental health and related service utilization of ASRs in Hong Kong, and examined their relationships with trauma exposure and displacement-related stressors. It was hypothesized that greater trauma exposure and displacement-related stressors are associated with poorer mental health (i.e., depression, anxiety, stress, and posttraumatic stress) and higher mental health service utilization in the past year.

METHODS

Participants and Setting

This study employed a cross-sectional survey design. Participants were recruited from one non-governmental organization (NGO) dedicated to serving ASRs in Hong Kong. Participants were eligible if they were: 1) aged 18 years or above, 2) currently residing in Hong Kong, 3) able to provide informed

consent, and 4) have either submitted the formal written signification to the Immigration Department, possess the Recognizance Document, or hold substantiated legal status. This study received ethical approval from the first author's affiliated institution.

Recruitment and data collection were conducted between February and October 2022. Participants completed the surveys anonymously and in the English language. Data were collected in-person or online. In the online version, participants accessed the survey via a weblink and provided the data independently. In-person sessions were conducted for participants who were not English proficient and required assistance of another bilingual ASR following the procedures described in previous research studies (15-18).

The final sample included 100 participants; 40 ASRs completed the survey online and 60 completed the survey in-person. All participants received a HK$50 supermarket voucher upon survey completion; those who completed the survey in-person were offered an additional HK$40 to cover their transportation expenses.

Study Measures

Displacement-related stressors were measured by nine items (i.e., social network loss, lack of access to basic resources, perceived discrimination, experience of family conflicts or family violence, safety issues, difficulty in resettlement, legal status uncertainty, worry about deportation, and prolonged detention) compiled based on the study by Miller and Rasmussen (3). Affirmative responses (yes/no) were summed to represent the total number of displacement-stressors (possible range = 0-9).

Trauma exposure was assessed using the International Trauma Exposure Measure (ITEM) (19), a checklist of 21 experiences that meet the ICD-11 definition of traumatic event. Participants indicated their exposure to each event, which was summed to create a total trauma exposure score (possible range = 0-21).

Depression, anxiety, and stress were measured by the 21-item Depression, Anxiety, and Stress Scale (DASS-21) (20); each mental state was assessed using seven self-report items scored on a 4-point Likert scale ranging from "0 (did not apply to me at all)" to "3 (applied to me very much or most of the time)". Subscale scores were summed and multiplied by two, with a higher score indicating a greater degree of severity. The scale has been widely used in resettled refugees' studies (21, 22) with excellent internal consistency (21). The total and subscale Cronbach's alphas in the present sample were excellent (.88-.96).

Posttraumatic stress was measured using the 18-item International Trauma Questionnaire (ITQ) (23). All items were answered on a 5-point Likert scale ranging from "0 (Not at all) to 4 (Extremely)". Criteria for PTSD require the presence (score of ≥ 2) of at least one symptom from each of the three PTSD symptom clusters (i.e., Re-experiencing, Avoidance, and Sense of Threat) in the past month, accompanied by functional impairment. Criteria for Complex PTSD (CPTSD) require meeting PTSD requirements and reporting the presence (score of ≥ 2) of at least one symptom from each of three

additional symptom clusters (i.e., Affective dysregulation, Negative self-concept, and Disturbed relationships) related to Disturbances in Self Organization (DSO), along with the associated functional impairment. DSO symptoms are measured by how the participants typically feel, think about oneself, and relate to others. Although CPTSD is not included as a formal diagnosis in the DSM-5, it is recognized as a diagnosable psychiatric condition in the International Classification of Diseases (ICD-11). Participants were dichotomized into screening positive for "PTSD/CPTSD" and "no trauma". The internal reliability of the ITQ in the present sample was .96 for the full scale, and .93 for the PTSD and .93 for the DSO subscales.

Mental health service utilization was assessed using four binary items (yes/no) drawn from prior studies (18, 24). These include the use of 1) outpatient services (i.e., private general practitioner and general outpatient clinic), 2) psychiatric services (i.e., psychiatric specialized outpatient clinic, psychiatric admission, and psychiatric medications), and 3) accident and emergency department for mental health issues in the past 12 months. Participants also reported whether they perceived any unmet mental health service needs in the past 12 months.

Sociodemographic characteristics included gender, age, place of origin, years of residence in Hong Kong, the legal status in Hong Kong, and whether participants were receiving the government's humanitarian assistance.

Statistical Analysis

SPSS version 29 was used for data analysis; all measures were scored according to instrument guidelines. Given very little missingness (<2%), mean/ mode substitution was used to input missing data. Descriptive statistics were computed to summarize the characteristics of the study sample. Eight multiple regression models were built, each using displacement stressors and trauma exposure to predict an outcome on mental health (depression, anxiety, stress, and PTSD/CPTSD) or mental health service utilization (past year usage of outpatient service, psychiatric services, and A&E, and unmet mental health needs), controlling for age and gender. Linear regression results are presented in standardized beta coefficient; logistic regression results are presented in odd ratios (OR). Statistical significance was set at $p<.05$.

RESULTS

Participants (n=100) reported a mean age of 41.68 years (SD=9.58; range=18-67) and had been residing in Hong Kong for an average of 10.03 years (SD=5.27). The majority were female (72%), originated from Asia (72%), were financially dependent on the government's humanitarian assistance (84%), and were under review of their application process (89%) (see **Table 1**). On average, participants reported exposures to 5.18 displacement-related stressors (SD=2.60); worry about deportation (81%) was the most commonly reported stressor, followed by legal status uncertainty (75%). Participants had an average of 9.46 lifetime traumatic events (SD=6.76); 89% reported at least one traumatic event.

The mean scores for depression, anxiety, and stress were 17.22 (SD=11.60), 15.17 (SD=11.64), and 17.72 (SD=11.33), respectively. Over half (57%) of participants reported symptoms of moderate to severe depression, 63% exhibited moderate to severe anxiety, and 46% reported moderate to severe levels of stress. A total of 44 participants screened positive for a trauma-related disorder; 9 met the probable diagnosis for PTSD and 35 for CPTSD. Over the past year, 18% received outpatient services, 16% received psychiatric services, and 13% visited the accident and emergency department for mental health care; 25% reported having unmet mental health service needs.

Results of multiple regression analyses are presented in **Table 2**. Controlling for age and gender, more displacement-related stressors and trauma exposure were significantly associated with higher levels of depression, anxiety, and stress among ASRs, with the strongest associations found between stress and trauma exposure (β=.42, p<.01). Depression, anxiety, and stress were also more strongly associated with trauma exposure (β=.30-.42, p<.01) than displacement-related stressors (β=.21-.30, p<.05). Each additional trauma exposure was associated with 1.17 times higher odds of screening positive for PTSD/CPTSD (p<.01), but this relationship was not found between displacement-related stressor and PTSD/CPTSD (OR=1.07, p=.53). Last, trauma exposure and displacement-related stressor did not significantly associate with mental health service utilization in the past 12 months. However, the odds of having unmet mental health service needs were 1.35 times higher for each additional displacement stressor (p=.01).

DISCUSSION

Struggling with mental health appeared to be a common phenomenon among ASRs in Hong Kong. Between 57%-63% of our sample reported moderate or higher levels of depression and anxiety, which was similar to a study of Bhutanese refugees in Australia (22). However, these rates were higher than those reported in prior local surveys of ASRs (36%-55%) (8, 14), among Bhutanese refugees in the United States (17%-25%) (25), or Bosnian refugees in Australia and Austria (23%-26%) (26). The mean scores for depression (17.2), anxiety (15.2), and stress (17.7) in the present sample were also higher than those reported in other studies of ASRs using the same measure (26-28). Although these direct comparisons should be interpreted with caution given most studies of ASRs did not include representative samples, ample evidence suggests mental health among ASRs are intimately linked with the integration policies and support systems available in their country of resettlement. For instance, a systematic review of 29 studies examining the long-term outcomes of adult war refugees concluded that post-migration socioeconomic difficulties, such as unemployment and financial hardship, were particularly associated with poorer mental health (29). Therefore, given the current policies prohibiting ASRs from gainful employment, it is not surprising that ASRs in Hong Kong have a heightened risk of mental health problems compared with ASRs in other countries.

The higher rates of mental distress reported in the present sample, especially when compared with prior surveys of ASRs in Hong Kong, may also be attributed to other contextual and historical factors. Specifically, the present study was conducted during the fifth wave of the COVID-19 pandemic when Hong Kong was placed under strict isolation and social distancing measures. However, findings from a population-based survey of Hong Kong adults in the same period (30) showed the mental well-being of the general population still fared substantially better than ASRs during those challenging times (depression: 5.3 vs 17.2; anxiety: 4.8 vs 15.2; stress: 6.9 vs 17.7; PTSD: 1.7% vs 9.0%; CPTSD: 4.2% vs 35.0%). Taken together, these results showed that ASRs experience poorer mental health compared with the general population of their location of resettlement, and perhaps more so in the event of disasters and wider social problems, which are likely sustained or exacerbated by the stressors and trauma incurred from both before and after their displacement. Indeed, ample studies have underscored the disproportionate health impacts that the COVID-19 pandemic had on ASRs due to marginalization, socioeconomic equalities, and cultural barriers (31-33). More research is needed to understand the unique mental health risks and needs of ASRs, especially in circumstances where their vulnerabilities may be magnified.

As hypothesized, positive associations between displacement-related stressors and trauma exposure with poorer mental health outcomes were observed. Trauma exposure also significantly heightened the risks of screening positive for PTSD/CPTSD. The present findings highlight the importance of considering both pre-migration traumatic experiences and post-migration environmental stressors when assessing the current mental health well-being of ASRs residing in Hong Kong (4). For example, the substantiation rate for ASRs in Hong Kong (<1%) has persistently remained significantly lower compared to some European societies that have a substantiation rate exceeding 50%. In fact, most participants reported worries about deportation and legal status uncertainty as a displacement-related stressor, underscoring how such stressors perpetuate "the violence of uncertainty" — a concept reflecting the health inequities driven by precarious policies and legal instability (34). This profound uncertainty about their future, coupled with viewing Hong Kong as merely a transitional shelter, can have a subtle but insidious impact on their mental well-being. Importantly, trauma exposure was found to be more strongly associated with mental health than displacement-related stressors. This finding underscores a critical need for host societies to design and deliver health and social care in a manner that is trauma-informed, and actively respond to the mental health concerns of this highly traumatized group. Ultimately, a place of resettlement should not only serve as a space for temporary refuge, but also a home that proactively seeks to address and minimize the pre-existing and ongoing challenges confronted by this highly marginalized population.

The hypothesized relationships between displacement-related stressors and trauma exposure with mental health service utilization were not supported. Several plausible explanations are offered. First, the low service utilization rates (13%-18%) suggested insufficient variability in our sample to achieve statistical significance. The low rates of service utilization may be linked to self-stigmatization

and the prioritization of competing needs, particularly given the low socioeconomic status prevalent among the population. In fact, perceived unmet service needs in our sample (25%) were significantly associated with displacement-related stressors. Second, due to their socioeconomic status, the only possible avenue for accessing mental health services is through the public sector. However, Hong Kong is confronted with a considerable shortage of mental health professionals, and the waiting time for new case in-takes at public psychiatry specialist outpatient clinics can take up to two years (35). This prolonged delay may intensify the reluctance of mental health help-seeking among ASRs struggling with a myriad of other demands and stressors.

Several limitations are noted. First, convenience sampling from one recruitment site limits the generalizability of findings to all ASRs in Hong Kong. The present sample also comprised mainly of females and ASRs from Asia. Second, surveys were completed in English, which may inadvertently exclude some ASRs due to language barrier. Third, the reliance on bilingual ASR for interpretation may limit the accuracy and reliability of assessments collected during the study. Fourth, the cross-sectional design precludes understanding changes in stressors and the trajectory of ASRs' mental health well-being over time, particularly in relation to the wide social issues that were ongoing at the time of recruitment (i.e., COVID-19 pandemic). Last, there are potential confounders (e.g., marital status and social support) that were not measured in this study.

Conclusion

The present study examined the mental health of ASRs in Hong Kong. Findings showed that this vulnerable group experienced poor mental health, which was significantly associated with trauma exposure and displacement-related stressors. However, these pre- and post-migration challenges did not associate with their mental health service utilization. Taken together, the findings highlight the urgency to establish a rigorous framework for managing their traumatic experiences and associated mental distress, alongside efforts to enhance their access to appropriate care. Existing meta-analyses have consistently demonstrated the effectiveness of cognitive behavioral therapy (CBT) and narrative exposure therapy (NET) in alleviating symptoms of PTSD, depression, and anxiety among ASR populations (36-38), providing evidence-based interventions for addressing their complex psychological needs. Moving forward, future research should focus on identifying effective strategies to overcome healthcare access challenges. For instance, this could involve launching educational campaigns and outreach initiatives aimed at destigmatizing mental health within ASR communities, raising awareness and fostering understanding within the systems and the broader community about the unique challenges faced by ASRs, implementing better assessment and screening protocols, and introducing inclusive policies to create a more compassionate for this marginalized and vulnerable population.

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The authors report there are no competing interests to declare.

Data availability statement

The authors confirm that the data supporting the findings of this study are available within the article.

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Table 1. Participant characteristics, mental health, and service utilization (N=100)

Gender, *n (%)*	
Female	72 (72.00)
Age, *Mean (SD) (Range: 18-67)*	41.68 (9.58)
Place of Origin (by continent), *n (%)*	
Africa	28 (28.00)
Asia	72 (72.00)
Years of Residence in Hong Kong, *Mean (SD)* (Range: 2-26)	10.03 (5.27)
With Government's Humanitarian Assistance, *n (%)*	84 (84.00)
Legal Status, *n (%)*	
Asylum Seekers (torture claimant/non-refoulement claimant)	89 (89.00)
Refugee	11 (11.00)
Number of Displacement-Related Stressors, *Mean (SD)*	5.18 (2.60)
Number of Trauma Exposure (ITEM), *Mean (SD)*	9.46 (6.76)
Depression Anxiety Stress Scales-21 (DASS-21), *Mean (SD)*	
Depression	17.22 (11.60)
Anxiety	15.17 (11.64)
Stress	17.72 (11.33)
International Trauma Questionnaire (ITQ), *n (%)*	
Posttraumatic Stress Disorder (PTSD)	9 (9.00)
Complex PTSD	35 (35.00)
Mental Health Service Utilization in Past 12 Months, *n (%)*	
Outpatient Services	18 (18.00)
Psychiatric Services	16 (16.00)
Accident and Emergency Department	13 (13.00)
Unmet Mental Health Service Needs, *n (%)*	25 (25.00)

Table 2. Relationships between mental health and service utilization with displacement stressors and trauma exposure among ASRs (N=100)

Predictors	Mental Health								Service Utilization							
	Depression		Anxiety		Stress		PTSD/ CPTSD		Outpatient Services		Psychiatric Services		Accident and Emergency Department		Unmet Needs	
	β	*p*	*β*	*p*	*β*	*p*	*OR*	*p*	*OR*	*p*	*OR*	*p*	*OR*	*p*	*OR*	*p*
Age	**-0.23**	**0.03**	-0.09	0.39	-0.11	0.31	0.98	0.53	0.98	0.56	0.99	0.76	1.04	0.25	**0.94**	**0.04**
Gender	-0.05	0.66	0.03	0.78	0.01	0.94	1.17	0.80	1.11	0.89	0.31	0.14	0.78	0.75	0.33	0.10
Displacement stressors	**0.27**	**0.01**	**0.30**	**<0.01**	**0.21**	**0.04**	1.07	0.53	0.97	0.79	1.21	0.12	1.04	0.77	**1.35**	**0.01**
Trauma exposure	**0.38**	**<0.01**	**0.30**	**<0.01**	**0.42**	**<0.01**	**1.17**	**<0.01**	0.99	0.81	0.91	0.07	1.05	0.30	0.99	0.87
R^2 / pseudo R^2	**0.31**	**<0.01**	**0.23**	**<0.01**	**0.27**	**<0.01**	**0.28**	**<0.01**	0.01	0.96	0.12	0.21	0.08	0.48	**0.19**	**0.02**

Note: Bold font indicates statistical significance at $p<0.05$; ASR = asylum seekers and refugees; PTSD = posttraumatic stress disorder; CPTSD = complex PTSD