

Current Addiction Reports

Substance use disorders among forcibly displaced people: a narrative review

--Manuscript Draft--

Manuscript Number:	ADDI-D-22-00102
Article Type:	Review
Section/Category:	Illicit Drugs
Corresponding Author:	Hussien Elkholy EGYPT
First Author:	Hussien Elkholy
Order of Authors:	Hussien Elkholy Joseph Tay Wee Teck Shalini Arunogiri Merit Ramses Asaad Franziska Baessler Roshan Bhad Emanuela Nadia Borghi Anja Busse Hamed Ekhtiari Subodh Dave Marica Ferri Claire Greene George Koob Christos Kouimtsidis Dzimtry Krupchanka Christoph Nikendei Stavroula Pipyrou Vladimir Poznyak Nora D. Volkow Aaron M White Arash Khojasteh Zonoozi Nadine Ezard Marc N. Potenza Alexander M Baldacchino
Abstract:	<p>Purpose of review</p> <p>Forced displacement, from wars, terrorism, internal disputes and environmental disasters, has been witnessed throughout human history. Forcibly displaced people face unimaginable difficulties and atrocities in their attempts to survive. Provision of support often focuses on basic needs, such as food, shelter, and essential health demands. We present here a narrative review informed by syndemic theory to understand the existing literature on the associations between substance use disorders and experiences of forced displacement.</p>

Recent findings

The risk factors associated with SUDs are similar to or overlap with those experienced by forcibly displaced people, yet there is substantial heterogeneity in patterns and prevalence of substance use across the different forcibly displaced people. Despite recognition that SUDs among forcibly displaced people are concerning, there are large gaps in knowledge. These include questions around whether forced displacement is directly and consistently linked with SUDs prevalence, what the patterns of risk and resilience look like across different cultures experiencing different causes of displacement over varying durations, and what constitutes effective interventions for these groups. These gaps are at least partly due to research having been disproportionately conducted in developed countries rather than in low- and middle-income countries.

Summary

Specifically, we categorize syndemic risks of both forced displacement and substance use disorders into four areas: trauma and violence, loss and instability, transit and resettlement and acculturation. We use causal loop diagramming to illustrate important synergistic interactions. We propose a research and intervention policy agenda informed by a broad and varied stakeholder base, accounting for generational and life-course effects and context specific cultural, structural, and economic priorities and values.

[Click here to view linked References](#)

Substance use disorders among forcibly displaced people: a narrative review

Authors:

Hussien Elkholy^{1,2*}, Joseph Tay Wee Teck^{3,4*}, Shalini Arunogiri^{5,6*}, Merit Ramses Asaad⁷, Franziska Baessler^{8,9}, Roshan Bhad¹⁰, Emanuela Nadia Borghi¹¹, Anja Busse¹², Hamed Ekhtiari¹³, Subodh Dave^{14,15}, Marica Ferri¹⁶, Claire Greene¹⁷, George Koob¹⁸, Christos Kouimtsidis^{19,20}, Dzimtry Krupchanka²¹, Christoph Nikendei⁸, Stavroula Pipyrou¹¹, Vladimir Poznyak²¹, Nora D. Volkow²², Aaron M White⁸, Arash Khojasteh Zonoozi²³, Nadine Ezard^{24,25**}, Marc N. Potenza^{26,27,28**}, Alexander M Baldacchino^{3,29**}

Authors affiliations:

1 Neurology and Psychiatry Department, Faculty of Medicine, Ain Shams University, Cairo, Egypt

2 Sussex Partnership NHS Foundation Trust, UK

3 School of Medicine, University of St Andrews, Scotland, UK

4 Humankind Charity, Leeds, UK

5 Monash Addiction Research Centre, Eastern Health Clinical School, Faculty of Medicine, Nursing and Health Sciences, Monash University, Melbourne VIC Australia

6 Turning Point, Eastern Health, Melbourne, Australia

7 Health Protection and Gender advisor - Red Cross

8 Department for General Internal Medicine and Psychosomatics, University of Heidelberg, Heidelberg, Germany

9 Heidelberg Academy of Sciences and Humanities, Heidelberg, Germany

10 Associate Professor, Department of Psychiatry & National Drug Dependence Treatment Centre (NDDTC), All India Institute of Medical Sciences (AIIMS), New Delhi, India-110029

11 University of St Andrews, Department of Social Anthropology, St Andrews, UK

12 United Nations Office on Drugs and Crime (UNODC). Prevention, Treatment and Rehabilitation Section, Vienna, Austria

13 Department of Psychiatry and Behavioral Sciences, University of Minnesota, Minneapolis, MN, USA

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
- 14 Dean, Royal College of Psychiatrists (RCPsych) United Kingdom
- 15 Professor, Institute of Psychiatry, University of Bolton
- 16 European Monitoring Centre for Drug and Drug Abuse (EMCDDA), Lisbon, Portugal
- 17 Program on Forced Migration and Health, Heilbrunn Department of Population and Family Health, Columbia University Mailman School of Public Health, New York, USA
- 18 National Institute of Alcohol Abuse and Alcoholism (NIAAA)
- 19 Imperial College, University of London, London, UK
- 20 Surrey and Borders Partnership NHS Foundation Trust, UK
- 21 World Health Organisation (WHO), Geneva, Switzerland
- 22 National Institute on Drug Abuse (NIDA), USA
- 23 Iranian National Center for Addiction Studies, Tehran University of Medical Sciences, Tehran, Iran
- 24 National Centre for Clinical Research on Emerging Drugs, UNSW Medicine, Sydney Australia
- 25 St Vincent's Hospital Sydney, Australia
- 26 Yale School of Medicine and Yale University, USA
- 27 Connecticut Mental Health Center, USA
- 28 Connecticut Council on Problem Gambling, USA
- 29 President, International Society in Addiction Medicine (ISAM)

* Have contributed equally as first authors.

** Have contributed equally as senior authors.

51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

Corresponding Author

Hussien Elkholy

Neurology and Psychiatry Department, Faculty of Medicine, Ain Shams University, Cairo, Egypt

Email: drhelkholy@gmail.com

Abstract:

Purpose of review: Forced displacement, from wars, terrorism, internal disputes and environmental disasters, has been witnessed throughout human history. Forcibly displaced people face unimaginable difficulties and atrocities in their attempts to survive. Provision of support often focuses on basic needs, such as food, shelter, and essential health demands. We present here a narrative review informed by syndemic theory to understand the existing literature on the associations between substance use disorders and experiences of forced displacement.

Recent findings: The risk factors associated with SUDs are similar to or overlap with those experienced by forcibly displaced people, yet there is substantial heterogeneity in patterns and prevalence of substance use across the different forcibly displaced people. Despite recognition that SUDs among forcibly displaced people are concerning, there are large gaps in knowledge. These include questions around whether forced displacement is directly and consistently linked with SUDs prevalence, what the patterns of risk and resilience look like across different cultures experiencing different causes of displacement over varying durations, and what constitutes effective interventions for these groups. These gaps are at least partly due to research having been disproportionately conducted in developed countries rather than in low- and middle-income countries.

Summary: Specifically, we categorize syndemic risks of both forced displacement and substance use disorders into four areas: trauma and violence, loss and instability, transit and resettlement and acculturation. We use causal loop diagramming to illustrate important synergistic interactions. We propose a research and intervention policy agenda informed by a broad and varied stakeholder base, accounting for generational and life-course effects and context specific cultural, structural, and economic priorities and values.

Keywords: Forced displacement; Forcibly Displaced People; Substance Use Disorders; Syndemic

Introduction

Forced displacement is defined as the coerced or involuntary movement of people from their homes, often due to generalised violence, armed conflict or war, violations of human rights, politically or ethnically motivated persecution, and/or environmental or natural disasters, to a location within their own country (also called internal displacement) or to another country (where some may be entitled to refugee status)¹. At mid-2021, more than 84 million people were displaced worldwide, consisting of 48 million internally displaced people (IDP), 26.6 million refugees and 4.4 million asylum-seekers², and 42% of all forcibly displaced people are children.²

Forcibly displaced people have often been exposed to or have witnessed significant violence and abuse and experienced homelessness, loss of belongings, separation from family and friends, social and economic hardships, poor nutrition, and lack of healthcare in their countries of origin, during transit and on resettlement³. The consequent trauma responses, mental health disorders, discrimination, stigma and acculturative stress generate vulnerabilities and needs that require specific responses⁴. Substance use disorders (SUDs) are characterised by continued use of drugs or alcohol despite important substance-related health and social problems⁵, and are often prevalent among groups or individuals facing multiple vulnerabilities interacting at individual, community and societal levels⁶. The risk factors associated with SUDs are similar to or overlap with those experienced by forcibly displaced people^{7,8}, yet there is substantial heterogeneity in patterns and prevalence of substance use across the different forcibly displaced people³.

For example, a systematic review showed a prevalence of alcohol use disorder in 12 settings ranging from 4 to 42% in camp settings and from <1 to 25% in community settings³. The same review identified the prevalence of drug use at <5% in community settings³ and 20% in one long-standing refugee camp setting in North Western Nigeria among forcibly displaced people from Liberia, Sierra Leone, and Togo⁹. Another study conducted in a psychosocial walk-in clinic within a German reception and registration centre for forced migrants reported a prevalence of 17.4% for drug misuse¹¹. However, a study of Syrian refugees in Lebanon showed a low prevalence of SUDs of < 0.1%¹¹. A study aiming to explore the prevalence of alcohol and substance use among young refugees in two refugee camps in Serbia highlighted how children and adolescents can also be affected, with energy drinks and tobacco most commonly used, then alcohol and cannabis and less cocaine, amphetamines and LSD¹².

Worldwide, data from the World Health Organization (WHO) Global Health Estimates suggest SUDs accounted for approximately 338,000 deaths in 2019 (alcohol use disorders: 156,546; drug use disorders: 181,758)¹³. According to the WHO, mortality related to SUDs is much higher as the numbers reflect only deaths directly associated with the disorders¹³. Notably, SUDs are closely associated with gender-based violence¹⁴, mental disorders¹⁵, blood-borne virus transmission¹⁶ and tuberculosis¹⁷. Adverse consequences from SUDs may affect forcibly displaced people more severely because of stigma with consequential reduced access to healthcare¹⁸⁻²⁰. Crucially, 4 out of every 5 forcibly displaced people are hosted in low-and middle-income countries, with 76% experiencing prolonged periods of displacement for more than 5 years¹. This means not only that host countries will be limited in their capacities to provide healthcare and essential harm reduction interventions to forcibly displaced people²¹,

1 but also that national sustainable development plans inclusive of such populations may become
2 hampered should SUD-associated morbidity become uncontrolled²².
3

4 Despite recognition that SUDs among forcibly displaced people are concerning, there are large
5 gaps in knowledge. These include questions around whether forced displacement is directly
6 and consistently linked with SUD prevalence, what the patterns of risk and resilience look like
7 across different cultures experiencing different causes of displacement over varying durations,
8 and what constitutes effective interventions for these groups. These gaps are at least partly due
9 to research having been disproportionately conducted in developed countries rather than in
10 low- and middle-income countries³.
11
12
13

14
15 Multiple risk and protective factors may contribute to the development of SUDs, many of
16 which are not well studied among forcibly displaced people, including the effects of
17 biopsychosocial factors ranging from acculturative stress^{23,24}, loss of identity^{25,26}, isolation²⁷,
18 and disrupted social support networks²⁸ to mental disorders (e.g., depression, anxiety)¹⁵ and
19 physical health conditions (e.g., pain, infectious diseases)²⁹; community and health system
20 level factors, such as health literacy and access to healthcare^{30,31}; and structural factors such as
21 legal status⁴. Common and salient experiences of racism, discrimination, and stigma may
22 modify influences of the abovementioned factors on the development of SUDs³²⁻³⁴. Figure 1
23 shows different phases of the forced displacement process. In each phase, factors may be
24 viewed through a syndemic lens at micro, meso and macro levels.
25
26
27
28

29 Research on the epidemiology of substance use and SUDs in forcibly displaced people has
30 focused almost exclusively on individual risk and protective factors. Individual-level factors
31 match existing epidemiological research on SUDs in non-displaced people, including findings
32 that SUDs are more common among males and individuals with less social support, worse
33 family functioning, prior trauma, and psychiatric disorders, among other characteristics.³
34 Qualitative research has identified motivations underlying substance use from the perspective
35 of displaced people, which include: to cope with stress and fear, to forget loss and deal with
36 painful emotions/experiences, to combat loneliness and hopelessness, to experience fun,
37 curiosity, to challenge society and media, and to manage unhappiness and
38 conflict/displacement^{35,36}. Stress associated with immigration processes for forcibly displaced
39 peoples can add a further layer of risk to SUDs³⁷.
40
41
42
43
44
45

46 **Please insert Figure 1 here**

47 **Figure 1. Phases of displacement and possible factors influencing substance use disorders (SUDs).** The factors that
48 contribute to SUD within the three main phases of the forced displacement process are depicted in this figure along
49 with the interactions between the phases via the incident of deportation or return.
50

51 52 53 54 **Methods**

55 56 **Study design**

57 We conducted a ‘state-of-the-art review’ which, according to Grant and Booth’s review
58 classification, aims for comprehensive searching of recent literature, addresses more
59 contemporary matters in comparison to other combined retrospective and current approaches,
60
61
62

1 and aims to examine current knowledge, offer new perspectives and highlight avenues for
2 further research.³⁸

3
4 The nature of this narrative review is mainly descriptive. We anticipated that studies would not
5 be sufficiently homogenous to conduct a quantitative synthesis. A preliminary classification
6 included trauma and violence, loss and instability, transit and resettlement, and acculturation.
7 Other variables include year of publication, country of study, target population, study design,
8 and findings.
9

10
11 The definition of target condition “forced displacement” was considered as the coerced or
12 involuntary movement of people from their homes, often due to generalised violence, armed
13 conflict or war, violations of human rights, politically or ethnically motivated persecution, or
14 environmental or natural disasters, to a location within their own country or to another country
15 (where some may be entitled to refugee status). However, given the different definitions that
16 the term might have, we consider studies that use different definitions as long as they were in
17 line with our definition.
18
19

20
21 The complexities of both forced displacement and SUDs are underpinned by syndemic risks
22 defined as interconnected factors across nested micro (individual factors), meso (for example,
23 the national institutions and humanitarian organisations with whom displaced populations
24 interact), and macro (for example, the structural and socio-cultural factors, such as laws,
25 military actions, economic conditions, and wider cultural norms in the origin and host
26 community) socio-ecological levels, over variable time frames⁴¹ In addition to being derived
27 from the interaction between individual-level processes and socio-ecological levels, syndemic
28 risks are characterised by originating from multiple possible causes, affected by combinations
29 of factors and subject to non-linear variations in response to very small changes in one or more
30 factors^{42,43}.
31
32
33
34

35
36 By using a syndemic lens, we can avoid treating risks as isolated indices which may result in
37 an incomplete picture of the patterns of substance use and the resilience within forcibly
38 displaced communities and individuals which may then lead to less effective, siloed and
39 unimodal interventions²⁹. However, presenting the dynamic complexities associated with
40 human behaviours, emotions and attitudes as they interact with risk factors for SUDs is
41 challenging⁴¹. We therefore used a visualisation method adapted from systems dynamics called
42 causal loop diagramming⁴⁴ which provides a more explicit description of the interrelationships
43 within a system’s structure.
44
45
46

47 *Search strategy*

48
49
50 Searches were conducted in MEDLINE, Embase, Web of Science, Scopus, ACM Digital
51 Library, IEEE Xplore Digital Library, SciELO. The review was conducted and documented in
52 line with the PRISMA-P⁴⁵ and MOOSE⁴⁶ checklists.
53

54
55 We also searched references from articles and scanned the grey literature. We contacted key
56 actors, including the researchers who have been actively involved on this topic for the last 15
57 years, to obtain more information. We included all identified studies that described forcibly
58 displaced people and SUDs. We included all methodologies and published in any language.
59
60
61

We included articles published in the last 25 years (from 1998 onwards) with the search end date being the 1st of May, 2022.

Quality appraisal and study details

Given that we expected a low number of studies and many to be qualitative, proof-of-concept of efficacy-testing, we put no restrictions on the type of study. This is a common feature of state-of-the-art reviews, where, instead of using quality assessment as an inclusion criterion, studies are included based on their relevance.

Data analysis

Paper characteristics, including year of publication, country of study, target population, study design, and findings, were entered into a spreadsheet. A thematic analysis approach, led by JT and HE and reviewed by the other authors, was used to group studies, compare them and analyse their findings and conclusions. There was an a priori split of four domains; namely, we divided issues into trauma and violence, loss and instability, transit and resettlement, and acculturation. This decision was based on previous knowledge on this topic.

Results

The limited data available were subject to methodological constraints, including inconsistent measures, absence of comparison populations, difficulties in accessing populations, and validity of reported data due to potential risks to disclosure of participants, particularly when substance use may be illegal, and defining the study population outside of circumscribed camp or collective settings^{39,40}. Almost all existing evidence was drawn from cross-sectional studies that prevent inferring causality with many existing studies focusing on any substance use rather than the development of SUDs^{39,40}.

We have identified 4 key domains/themes of syndemic risks encountered through different phases of forced displacement in relation to SUDs (Figure 2).

Please insert figure 2 here

Figure 2. Syndemic risk factors for substance use disorders (SUDs) among forcibly displaced people. The 4 key domains/themes of syndemic risks (depicted in the middle the figure) encountered through different phases of forced displacement (depicted in the right side of the figure) and factors level of involvement (depicted in the left side of the figure) is shown in relation to SUDs.

Interactions of different syndemic risk factors for SUDs in forcibly displaced people are summarised in Figure 3.

Please insert figure 3 here

Figure 3: Interaction of different syndemic risk factors for SUDs in forcibly displaced people. Each link in the diagram has a polarity. Black coloured arrows indicate a positive link showing that an increase in the input variable

may cause the output variable to also increase. Red coloured arrows indicate a negative link, meaning that an increase in the input variable may cause the output variable to decrease by a specified amount.

Trauma and violence

Forced displacement and the events that cause them are complex and deeply intertwined with trauma and violence⁴⁷. The drivers for forced displacement include armed conflict, climate change, natural disasters and competition for limited natural resources. These can be protracted and result in prolonged periods of exposure to trauma, violence, and threats to health. The Syrian civil war which began in 2011 is the single largest forced-displacement crisis with thousands killed in conflict². The situation is similar for South Sudan, while in the Democratic Republic of the Congo, the end of the civil war in 2003 has not led to a cessation in violence with widespread human rights violations including mutilation, sexual violence, detention in inhumane conditions and killings². Colombia hosts the second largest refugee population worldwide and has the largest internally displaced population—as many as 8 million people in 2020. Violence in Colombia stems from drug-trafficking groups, so-called narco-violence, civil war, human trafficking, corruption and poverty⁴⁸.

Health interventions therefore need to be designed to address multi-morbidity and chronic disease management as well as immediate and urgent needs. The direct relationship between illicit drug markets and forced displacement makes drug policy a key consideration in strategic plans for countries to move into economic and developmental recovery⁴⁹.

Forcibly displaced people, regardless of gender or age, can be victims of violence. However, females are particularly vulnerable to violence at all stages of their journey in forced displacement^{48,50,51}, with devastating consequences including physical, reproductive and psychological sequelae^{52,53} exacerbated by a lack of medical care, co-existing infectious disease, poor nutrition, stress, and other health problems⁵⁴. Sexual violence is often used as a terror tactic and a weapon of war⁵⁰. The UNHCR and other agencies working with forcibly displaced people recognise the different needs of men, women and children and incorporate them into policy and program design, particularly those related to human security⁵⁵.

Forcibly displaced people frequently have experienced or witnessed torture, violence, abuse and human rights violations. It is therefore unsurprising that disorders such as generalised anxiety, depression and post-traumatic stress disorder (PTSD)^{56,57} are highly prevalent. Associations between mental disorders, trauma and SUDs among the general population are well documented^{7,58,59}, and research involving forcibly displaced people suggest similar concerns^{60,61}. PTSD as a diagnostic construct has been challenged since its inception, including regarding presumptions that it develops from a specific aetiology, its indistinct nature when compared to other mental health diagnoses and the detection of diagnostic creep⁶². This last issue is particularly relevant here, as the PTSD model has been extended across diverse cultures to envelope an increasing range of events and human reactions.

PTSD diagnostic criteria do not account for variations in health literacy, demographics, resilience and vulnerability factors and the impact of these on trauma-related mental health symptoms. The impact of violence can unfold acutely^{7,63} or over longer time frames, as with intergenerational trauma⁶⁴. The sociocultural and linguistic features of a population also affect how traumatic experiences are experienced and interpreted, how stress responses are expressed and managed, and how healing unfolds^{65,66}. Each forcibly displaced person should therefore be

1 understood in the context of his/her/their own culture and circumstances, and interventions to
2 manage mental and physical health should be culturally appropriate⁶⁷.

3 Loss and instability

4
5
6 Forcibly displaced people face losses of their homes, property, community and livelihoods as
7 the governance and legal structures of their countries of origin cease to protect them.
8 Consequently, they often lose their capacities to plan for their futures and protect their families,
9 and this often significantly impairs their mental and physical health. These losses are frequently
10 neglected as humanitarian agencies mobilise to address urgently events leading to
11 displacement. Furthermore, forced displacement undermines a community's resilience, and a
12 culture of apathy may replace community rules and values.
13
14

15
16 In communities facing constant exposure to narco-violence in the absence of the protections of
17 the rule of law, organised criminal gangs often step in to provide a livelihood and a version of
18 relative security⁶⁸. This collaboration with criminal groups facilitates human trafficking,
19 displacing more individuals from their homes. The loss of healthcare systems and access to
20 common medications (and more specifically premature discontinuation of medication for
21 substance use disorders e.g., methadone for opioids) hinders chronic disease management and
22 acute emergency treatment, resulting over time in increased morbidity and mortality²⁹.
23
24

25
26 Homelessness and the risk of homelessness are particularly concerning, not only in the country
27 of origin but also when forcibly displaced people have arrived in their host country. In high-
28 income countries, people who are homeless have higher all-cause mortality⁶⁹. Specifically,
29 people in high-income countries who had experienced homelessness, imprisonment, substance
30 use, or sex work compared with the general population had a Standardised Mortality Ratio
31 (SMR) of between 8 and 12.3⁶⁹. Forcibly displaced people entering high-income countries may
32 find themselves competing for housing in urban settings with which they are unfamiliar,
33 exacerbating the resettlement stresses they face, further accentuated by discrimination and
34 racist behaviours from host citizens⁷⁰. Moreover, homeless children and adolescents might be
35 at greater risk for misuse of volatile substances such as toluene with the associated neurotoxic
36 and addictive consequences⁷¹.
37
38
39

40 Transit and resettlement

41
42
43 Different experiences during transit, resettlement and even return can also affect substance use
44 and SUDs. Displacement situations are often protracted, underscoring the importance of having
45 longer-term plans to support those who are displaced and host countries.
46
47

48 Protracted displacement also increases forcibly displaced people's vulnerability to
49 homelessness and human trafficking, both of which have been linked to premature mortality,
50 SUDs and trauma or violence⁷²⁻⁷⁴. The absence of a recognised legal status for forcibly
51 displaced people in their host countries not only contributes to protracted displacement, but
52 also limits seeking treatment for SUDs⁷⁵.
53
54

55
56 Legal status for forcibly displaced people exists for refugees as defined by the 1951 Refugee
57 Convention and asylum-seekers who are claiming refugee status but have not yet been given
58 this status². IDP do not have formal legal status, and reporting of their numbers is reliant on
59 the degree of transparency upon which their governments decide. This means that stateless,
60
61

1 internally, or undocumented forcibly displaced people may find themselves with no recourse
2 to public funds and thus be unable to access services⁷⁶. Uncertainty regarding legal status may
3 also exacerbate unwarranted fears and marginalise key populations from addiction treatment.
4 For example, Afghan refugees in Iran and Burmese refugees in Thailand have reported stigma,
5 perceived discrimination, a fear of being reported, and confidentiality concerns as barriers to
6 seeking SUD treatment^{40,60}. In the UK, access to National Health Services (NHS) may be free
7 for asylum-seekers and refugees, but those forcibly displaced people whose asylum claims
8 have been refused are liable to pay charges, potentially impacting access to and availability of
9 care.⁷⁷
10

11 Finally, the impacts of social and economic inequalities, discrimination and marginalisation
12 experienced by forcibly displaced people, all independent determinants of health, should not
13 be underestimated³⁴. These factors contribute to stress and powerlessness, and, with trauma-
14 related mental health issues, may increase risks of SUDs⁷⁸. Forcibly displaced people may find
15 themselves living in alien urban environments or impoverished neighbourhoods with high
16 availabilities of drugs and alcohol, resulting in exposure to these substances at very vulnerable
17 times in their lives⁷⁹. Few studies have explored how humanitarian and national systems
18 influence substance use and the development and treatment of SUDs among displaced
19 populations. Some studies, however, have found that resettlement factors (moving, trouble
20 accessing health services, health conditions delaying resettlement, family structure changing)
21 were not related to alcohol use disorders.⁸⁰
22
23
24
25
26

27 Acculturation

28

29 Displacement may alter cultural norms promoting or proscribing substance use. Patterns of
30 substance use from a range of settings were observed to be a continuation or exaggeration of
31 pre-displacement patterns, transition to host-population patterns, or a mix of the two. Patterns
32 of use may vary by sub-group affiliation, such as age, gender, ethnicity or religion.
33
34

35 The dynamic nature of cultural and contextual factors for displaced populations as they
36 navigate new identities, geographies, and systems in relation to their cultural contexts in their
37 respective communities of origin may also present unique risk for and protection against SUDs.
38 An interesting phenomenon, referred to as “immigrant paradox” or the “healthy immigrant
39 effect”, suggests that first generation immigrants to the USA show lower levels of substance
40 use than second generation and native-born Americans, despite exposure to various
41 sociodemographic risk factors⁸¹. Several hypotheses have been forwarded to explain this
42 phenomenon, including that immigrants having successfully uprooted their lives from one
43 nation to another tend to be highly capable, self-disciplined, and healthy individuals.⁸² Another
44 explanation, also referred to as the “cultural armamentarium hypothesis”⁸³, suggests that
45 immigrants may transport their cultural norms and practices (e.g., anti-drug use beliefs,
46 tendencies to congregate with other immigrants) that may provide a form of “herd immunity”
47 against risky behaviours.⁸⁴ A third hypothesis is that immigrants may abstain from illegal
48 activities such as substance use because of fears of deportation or involvement in foreign
49 criminal justice systems.⁸⁵
50
51
52
53
54

55 On the other hand, African migrants in Australia cited motivations for drinking alcohol as
56 coping with trauma, boredom and frustration, and as a social experience³. Forcibly displaced
57 people often experience acculturation stress when psychologically adapting to foreign
58 cultures.²⁵ They are hypothesised to start using drugs or alcohol in countries where this is a
59 mainstream norm in order to assimilate.²⁴ Both factors may contribute to increased risk for
60
61
62
63
64
65

1 developing SUDs. This may particularly be the case among younger migrants due to
2 intergenerational conflicts, greater desires for acceptance, and pressures associated with being
3 caught between cultures.^{23,86,87}

4 Discussion:

7 Applying the syndemic perspective to policy development

9 A syndemic lens allows us to think differently about the metrics and methodologies we use to
10 understand SUDs among forcibly displaced people and consider broader policy and
11 intervention options to modify outcomes for this population. Nevertheless, it is important to
12 apply syndemic approaches in a methodologically sound way, appropriate to the context of the
13 target population.⁸⁸ To support this endeavour, we propose three recommendations.

16 Firstly, to support the creation of cross-disciplinary collaborations which are most relevant to
17 meeting the needs of forcibly displaced populations experiencing SUD, we propose widening
18 the SUD research and policy community to include public health professionals, civil society
19 organisations, people with lived and living experience of displacement and addiction, cultural
20 and religious leaders, and community leaders of both countries of origin and host countries.
21 This has the benefits of promoting the cross-pollination of ideas and values to inform relevant
22 research questions applicable at both individual and population levels, culturally and
23 structurally competent policy solutions, and relevant metrics appropriate to resource limited
24 contexts.

28 Secondly, we propose a research and policy agenda which examines the experiences and
29 syndemic risks of SUDs among forcibly displaced people across generations and the life
30 course. This is perhaps the most challenging proposal as it calls for significant and sustainable
31 investment in long-term research capacity and policies with multi-generational impacts.
32 Longitudinally tracking the lives of displaced children today to identify SUD diagnoses and
33 outcomes in one or two generations in the future is daunting. Yet, retrospective anthropological
34 research on the health status of communities as they experience syndemic vulnerabilities
35 happens currently⁸⁹, including among formerly displaced populations⁹⁰.

39 Finally, we propose that interventions and policies for forcibly displaced people at risk of or
40 experiencing SUDs are structurally and culturally sensitive, borrowing from the experiences
41 of other care settings. While there is little research on how health systems and services
42 providing care for longer-term chronic conditions should function in reference to forcibly
43 displaced people, some evidence exists for how these are organised for transient or homeless
44 people in many high-income countries⁹¹⁻⁹³. There is certainly scope for the cross-pollination
45 of ideas and knowledge to bridge gaps and make use of limited resources in sustainable ways.
46 However, the critical importance of upstream social determinants of health such as racism,
47 social inequalities and deprivation and stigma leading to forced displacements of many
48 populations should be noted and addressed. These factors will impact many forcibly displaced
49 people as they attempt to forge new lives in new settings and circumstances.

56 Conclusion

57 We have presented here a narrative review informed by syndemic theory to understand the
58 existing literature on the associations between SUDs and experiences of forcibly displaced
59 people. Specifically, we categorise syndemic risks of both forced displacement and SUDs into
60

1 four areas: trauma and violence, loss and instability, transit and resettlement and acculturation.
2 We then use causal loop diagramming to illustrate important synergistic interactions. We
3 believe that presenting the current literature in this way lays the foundation for person-centred
4 integrated community-focused care as well as policies which reflect the complexity of both
5 forced displacement and SUD experiences. We conclude by proposing a research and
6 intervention policy agenda informed by a broad and varied stakeholder base, accounting for
7 generational and life-course effects and context specific cultural, structural, and economic
8 priorities and values. We aim to prompt further discussion and debate and ultimately a
9 consensus-based approach to supporting people facing dual syndemic risks associated with
10 forced displacement and SUDs.
11

12 **Authors' contribution:**

13 HE, JT, MNP and AMB conceptualised the article. JT, HE, MNP, AMB, SA, MCG, NE and
14 AMB conducted the data curation and produced the first draft. JT, HE, AKZ and HE
15 contributed with graphs designing and data interpretation. MRA, FB, ENB, SD, MF, GK,
16 CK, DK, CN, SP, VP, NDV, AKZ, HE and AMW reviewed and edited the draft and
17 contributed with new ideas and materials. JT, HE, MNP, AMB incorporated all comments,
18 revised the article and produced the final version which had been reviewed and approved by
19 all co-authors. HE and JT had coordinated the whole process supervised and supported by
20 MNP and AMB. HE, JT and SA had contributed equally as first authors, while NE, MNP and
21 AMB had contributed equally as senior authors.
22
23
24
25
26
27

28 **Declarations of interest:**

29
30 **Funding:** No funding was received for this work. SA has received speaker honoraria from
31 Camurus, Indivior, Gilead and Janssen unrelated to this work. SA has received research grants
32 from the Australian National Health and Medical Research Council. MP has consulted for
33 Opiant Therapeutics, Game Day Data, Baria-Tek, the Addiction Policy Forum, AXA and
34 Idorsia Pharmaceuticals; has been involved in a patent application with Yale University and
35 Novartis; has received research support from Mohegan Sun Casino; has consulted for and/or
36 advised gambling and legal entities on issues related to impulse-control/addictive disorders;
37 has performed grant reviews for research-funding agencies; has given academic lectures in
38 grand rounds, CME events and other clinical or scientific venues. AMB has received
39 unrestricted educational grants from Indivior and Camurus. He is the President of the
40 International Society in Addiction Medicine (ISAM). He has performed grant reviews for
41 research-funding agencies; has given academic lectures in grand rounds, CME events and other
42 clinical or scientific venues. NE is employed by St Vincent's Health Australia for the New
43 South Wales Government and has received research funding from the Australian Government
44 for unrelated work.
45
46
47
48

49 **Conflicts of Interest:** The authors alone are responsible for the views expressed in this article
50 and they do not necessarily represent the decisions or policies of the UNODC, WHO,
51 EMCDDA, Norwegian Red Cross, ISAM, NIDA, NIAAA, and the Royal College of
52 Psychiatrists or any funding agencies. None of the remaining authors have any conflict of
53 interest to declare.
54
55

56 **Human and Animal Rights and Informed Consent:** Not applicable as no human or animal
57 subjects were involved in this work.
58
59
60
61
62

References

Papers of particular interest, published recently, have been highlighted as:

- Of importance
- Of major importance

- 1 Sironi, A, Bauloz C, Milen E. Glossary on migration. Geneva, Switzerland: International Organization for Migration, 2019
https://publications.iom.int/system/files/pdf/iml_34_glossary.pdf (accessed Sept 14, 2021).
- 2 UNHCR - Refugee Statistics [Internet]. UNHCR. 2022 [cited 28 April 2022]. Available from: <https://www.unhcr.org/refugee-statistics/>
- 3 Horyniak D, Melo JS, Farrell RM, Ojeda VD, Strathdee SA. Epidemiology of Substance Use among Forced Migrants: A Global Systematic Review. *PLOS ONE* 2016; **11**: e0159134.
- 4 Cohen R, Bradley M. Disasters and displacement: Gaps in protection. *J Int'l Human Legal Stud* 2010; **1**: 95.
- 5 Saunders JB. Substance use and addictive disorders in DSM-5 and ICD 10 and the draft ICD 11. *Curr Opin Psychiatry*. 2017 Jul;30(4):227-237. doi: 10.1097/YCO.0000000000000332. PMID: 28459730.
- 6 Cox S, Moss AC, Ritter A. Editorial for special issue: Vulnerable groups: Addiction research, policy and practice. *Addict Behav* 2020; **104**: 106266.
- 7 Ford JD, Hawke J, Alessi S, Ledgerwood D, Petry N. Psychological trauma and PTSD symptoms as predictors of substance dependence treatment outcomes. *Behaviour research and therapy* 2007; **45**: 2417–31.
- 8 Hien DA, López-Castro T, Fitzpatrick S, Ruglass LM, Fertuck EA, Melara R. A unifying translational framework to advance treatment research for comorbid PTSD and substance use disorders. *Neuroscience & Biobehavioral Reviews* 2021; **127**: 779–94.
- 9 Akinyemi OO, Owoaje ET, Ige OK, Popoola OA. Comparative study of mental health and quality of life in long-term refugees and host populations in Oru-Ijebu, Southwest Nigeria. *BMC Res Notes* 2012; **5**: 394.
- 10 Manok N., Huhn D., Kohl R.M., Ludwig M., Schweitzer J., Kaufmann C., Terhoeven V., Ditzen B., Herpertz S., Herzog W., Nikendei C. (2017). [Outpatient clinic for refugees with posttraumatic disorders and mental burdens in a state reception center. Development, implementation and patient spectrum.] *Psychotherapeut*, 62, 333 - 340.

- 11 Kazour F, Zahreddine NR, Maragel MG, *et al.* Post-traumatic stress disorder in a sample of Syrian refugees in Lebanon. *Comprehensive Psychiatry* 2017; **72**: 41–7.
- 12 Vasic J, Grujicic R, Toskovic O, Pejovic Milovancevic M. Mental Health, Alcohol and Substance Use of Refugee Youth. *Frontiers in Psychiatry*. 2021;12.
- 13 Global Health Estimates 2020: Deaths by Cause, Age, Sex, by Country and by Region, 2000-2019. Geneva, World Health Organization; 2020.
- 14 Block K, Nasr H, Vaughan C, Alsaraf S. What responses, approaches to treatment, and other supports are effective in assisting refugees who have experienced sexual and gender-based violence. *Institute for Research into Superdiversity (IRIS), University of Birmingham* 2019.
- 15 Posselt M, McDonald K, Procter N, de Crespigny C, Galletly C. Improving the provision of services to young people from refugee backgrounds with comorbid mental health and substance use problems: addressing the barriers. *BMC Public Health* 2017; **17**. DOI:10.1186/s12889-017-4186-y.
- 16 Rachlis B, Brouwer KC, Mills EJ, Hayes M, Kerr T, Hogg RS. Migration and transmission of blood-borne infections among injection drug users: understanding the epidemiologic bridge. *Drug and alcohol dependence* 2007; **90**: 107–19.
- 17 Nava-Aguilera E, Andersson N, Harris E, *et al.* Risk factors associated with recent transmission of tuberculosis: systematic review and meta-analysis. *The International journal of tuberculosis and lung disease* 2009; **13**: 17–26.
- 18 Browne J, Renzaho A. Prevention of alcohol and other drug problems in culturally and linguistically diverse communities. *Prevention research quarterly* 2010; **13**: 1–24.
- 19 Morris MD, Popper ST, Rodwell TC, Brodine SK, Brouwer KC. Healthcare Barriers of Refugees Post-resettlement. *J Community Health* 2009; **34**: 529.
- 20 Mulvaney-Day N, DeAngelo D, Chen C, Cook B, Alegría M. Unmet need for treatment for substance use disorders across race and ethnicity. *Drug Alcohol Depend* 2012; **125**: S44–50.
- 21 Greene MC, Ventevogel P, Kane JC. Substance use services for refugees. *Bull World Health Organ* 2019; **97**: 246-246A.
- 22 Health Poverty Action. Drug Policy and the Sustainable Development Goals. 2015 https://www.unodc.org/documents/ungass2016/Contributions/Civil/Health_Poverty_Action/HPA_SDGs_drugs_policy_briefing_WEB.pdf (accessed Sept 17, 2021).
- 23 Berry JW, Kim U, Minde T, Mok D. Comparative Studies of Acculturative Stress. *International Migration Review* 1987; **21**: 491–511.
- 24 Berry JW. Acculturation. In: Reference Module in Neuroscience and Biobehavioral Psychology. Elsevier, 2017. DOI:10.1016/B978-0-12-809324-5.05455-9.

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- 25 Celebi E, Verkuyten M, Bagci SC. Ethnic identification, discrimination, and mental and physical health among Syrian refugees: The moderating role of identity needs. *European Journal of Social Psychology* 2017; **47**: 832–43.
- 26 Acosta CP. Unsettled lives, displaced selves: An ethnographic study of refugees' subjective experiences and identity reformulation in a refugee camp in Greece. 2019; : 94.
- 27 Roe L, Proudfoot J, Tay Wee Teck J, Irvine RDG, Frankland S, Baldacchino AM. Isolation, Solitude and Social Distancing for People Who Use Drugs: An Ethnographic Perspective. *Frontiers in Psychiatry* 2021; **11**: 1599.
- 28 Lawoko S, Nakidde C, Lugada E, *et al.* Psychological Distress and Social Support among Conflict Refugees in Urban, Semi-rural and Rural Settlements in Uganda: Burden and Mechanisms of Association. In Review, 2021 DOI:10.21203/rs.3.rs-606878/v1.
- 29 Kohrt BA, Carruth L. Syndemic effects in complex humanitarian emergencies: A framework for understanding political violence and improving multi-morbidity health outcomes. *Soc Sci Med* 2020; : 113378.
- 30 Hewlett M, Merry L, Mishra A, Islam R, Wali RM, Gagnon A. Alcohol use among Bhutanese refugees in Nepal. *International Journal of Migration, Health and Social Care* 2015. DOI:10.1108/IJMHC-05-2014-0017.
- 31 Luitel NP, Jordans M, Murphy A, Roberts B, McCambridge J. Prevalence and patterns of hazardous and harmful alcohol consumption assessed using the AUDIT among Bhutanese refugees in Nepal. *Alcohol and alcoholism* 2013; **48**: 349–55.
- 32 Shedlin MG, Decena CU, Noboa H, Betancourt Ó. Sending-country violence and receiving-country discrimination: effects on the health of Colombian refugees in Ecuador. *Journal of immigrant and minority health* 2014; **16**: 119–24.
- 33 Sadeghi S. Racial boundaries, stigma, and the re-emergence of “always being foreigners”: Iranians and the refugee crisis in Germany. *Ethnic and Racial Studies* 2019; **42**: 1613–31.
- 34 Quinn N. Participatory action research with asylum seekers and refugees experiencing stigma and discrimination: the experience from Scotland. *Disability & Society* 2014; **29**: 58–70.
- 35 Massad SG, Shaheen M, Karam R, *et al.* Substance use among Palestinian youth in the West Bank, Palestine: a qualitative investigation. *BMC Public Health* 2016; **16**: 800.
- 36 McCleary JS, Shannon PJ, Cook TL. Connecting Refugees to Substance Use Treatment: A Qualitative Study. *Soc Work Public Health* 2016; **31**: 1–8.
- 37 •Christie B. UK immigration system blamed for high level of alcohol problems among refugees BMJ 2020; 371 :m4345 doi:10.1136/bmj.m4345. **Highlights the impact of stress.**
- 38 Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Info Libr J.* 2009 Jun;26(2):91-108. doi: 10.1111/j.1471-1842.2009.00848.x. PMID: 19490148.

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- 39 •• Ezard N. Substance use among populations displaced by conflict: a literature review. *Disasters* 2012; **36**: 533–57. **Provides important insight into studies on the problem of substance use among displaced people.**
- 40 Ezard N, Manji H, Busse A. Substance Use Disorders in Conflict-Displaced Populations. In: el-Guebaly N, Carrà G, Galanter M, Baldacchino AM, eds. *Textbook of Addiction Treatment: International Perspectives*. Cham: Springer International Publishing, 2021: 1463–75.
- 41 Lich KH, Ginexi EM, Osgood ND, Mabry PL. A Call to Address Complexity in Prevention Science Research. *Prev Sci* 2013; **14**: 279–89.
- 43 Cleland CM, Lanza ST, Vasilenko SA, Gwadz M. Syndemic Risk Classes and Substance Use Problems among Adults in High-Risk Urban Areas: A Latent Class Analysis. *Front Public Health* 2017; **5**: 237.
- 44 Baugh Littlejohns L, Baum F, Lawless A, Freeman T. The value of a causal loop diagram in exploring the complex interplay of factors that influence health promotion in a multisectoral health system in Australia. *Health Research Policy and Systems* 2018; **16**: 126.
- 45 Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, Shamseer L, Tetzlaff JM, Akl EA, Brennan SE, Chou R, Glanville J, Grimshaw JM, Hróbjartsson A, Lalu MM, Li T, Loder EW, Mayo-Wilson E, McDonald S, McGuinness LA, Stewart LA, Thomas J, Tricco AC, Welch VA, Whiting P, Moher D. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021 Mar 29;372:n71. doi: 10.1136/bmj.n71. PMID: 33782057; PMCID: PMC8005924.
- 46 Stroup DF, Berlin JA, Morton SC, Olkin I, Williamson GD, Rennie D, Moher D, Becker BJ, Sipe TA, Thacker SB. Meta-analysis of observational studies in epidemiology: a proposal for reporting. Meta-analysis Of Observational Studies in Epidemiology (MOOSE) group. *JAMA*. 2000 Apr 19;283(15):2008-12. doi: 10.1001/jama.283.15.2008. PMID: 10789670.
- 47 Nickerson A, Liddell B, Asnaani A, *et al*. Briefing Paper: Trauma and Mental Health in Forcibly Displaced Populations. *Washington, DC: International Society for Traumatic Stress Studies* 2017.
- 48 Wirtz AL, Pham K, Glass N, *et al*. Gender-based violence in conflict and displacement: qualitative findings from displaced women in Colombia. *Conflict and health* 2014; **8**: 1–14.
- 49 Csete J, Kamarulzaman A, Kazatchkine M, *et al*. Public Health and International Drug Policy. *Lancet* 2016; **387**: 1427–80.
- 50 Siddique JA. War and Rape. *The Encyclopedia of Women and Crime* 2019; : 1–5.
- 51 Araujo JDO, Souza FM de, Proença R, Bastos ML, Trajman A, Faerstein E. Prevalence of sexual violence among refugees: a systematic review. *Rev saúde pública* 2019; **53**: 78.

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- 52 Garcia-Linares MI, Sanchez-Lorente S, Coe CL, Martinez M. Intimate male partner violence impairs immune control over herpes simplex virus type 1 in physically and psychologically abused women. *Psychosomatic medicine* 2004; **66**: 965–72.
- 53 Ellsberg M, Jansen HA, Heise L, Watts CH, Garcia-Moreno C. Intimate partner violence and women’s physical and mental health in the WHO multi-country study on women’s health and domestic violence: an observational study. *The lancet* 2008; **371**: 1165–72.
- 54 UNHCR. Sexual and gender-based violence against refugees, returnees and internally displaced peoples. 1995.
- 55 Rosenow-Williams K, Behmer K. Gendered Environmental Security in IDP and Refugee Camps. *PeacwDEe Review* 2015; **27**: 188–95.
- 56 Steel Z, Chey T, Silove D, Marnane C, Bryant RA, van Ommeren M. Association of Torture and Other Potentially Traumatic Events With Mental Health Outcomes Among Populations Exposed to Mass Conflict and Displacement: A Systematic Review and Meta-analysis. *JAMA* 2009; **302**: 537.
- 57 Porter M, Haslam N. Predisplacement and Postdisplacement Factors Associated with Mental Health of Refugees and Internally Displaced Peoples: A Meta-Analysis. *JAMA : the journal of the American Medical Association* 2005; **294**: 602–12.
- 58 Dass-Brailsford P, Myrick AC. Psychological trauma and substance abuse: The need for an integrated approach. *Trauma, Violence, & Abuse* 2010; **11**: 202–13.
- 59 Reichert RA, Lopes FM, da Silva EA, Scatena A, Andrade ALM, De Micheli D. Psychological Trauma: Biological and Psychosocial Aspects of Substance Use Disorders. In: De Micheli D, Andrade ALM, Reichert RA, Silva EA da, Pinheiro B de O, Lopes FM, eds. *Drugs and Human Behavior: Biopsychosocial Aspects of Psychotropic Substances Use*. Cham: Springer International Publishing, 2021: 243–60.
- 60 Brune M, Haasen C, Yagdiran O, Bustos E. Treatment of Drug Addiction in Traumatized Refugees. *Eur Addict Res* 2003; **9**: 144–6.
- 61 Kozariae-Kovaèiae D, Ljubin T, Grappe M. Comorbidity of Posttraumatic Stress Disorder and Alcohol Dependence in Displaced Peoples. .
- 62 Rosen GM, Spitzer RL, McHugh PR. Problems with the post-traumatic stress disorder diagnosis and its future in DSM-V. *Br J Psychiatry* 2008; **192**: 3–4.
- 63 Afari N, Ahumada SM, Wright LJ, *et al*. Psychological trauma and functional somatic syndromes: a systematic review and meta-analysis. *Psychosomatic medicine* 2014; **76**: 2.
- 64 Castro-Vale I, Severo M, Carvalho D, Mota-Cardoso R. Intergenerational transmission of war-related trauma assessed 40 years after exposure. *Annals of general psychiatry* 2019; **18**: 1–10.
- 65 Drozdek B. Challenges in treatment of posttraumatic stress disorder in refugees: towards integration of evidence-based treatments with contextual and culture-sensitive perspectives. *Eur J Psychotraumatol* 2015; **6**. DOI:10.3402/ejpt.v6.24750.

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- 66 Hinton DE, Good BJ. Culture and PTSD: Trauma in Global and Historical Perspective. University of Pennsylvania Press, 2016.
- 67 Asylum seeker and refugee mental health | Royal College of Psychiatrists [Internet] Royal College Of Psychiatrists. 2022 [cited 4 May 2022]. Available from: <https://www.rcpsych.ac.uk/international/humanitarian-resources/asylum-seeker-and-refugee-mental-health>
- 68 Hays CM. Collaboration with criminal organisations in Colombia: an obstacle to economic recovery. 2018; : 3.
- 69 Tweed EJ, Thomson RM, Lewer D, *et al.* Health of people experiencing co-occurring homelessness, imprisonment, substance use, sex work and/or severe mental illness in high-income countries: a systematic review and meta-analysis. *J Epidemiol Community Health* 2021. DOI:10.1136/jech-2020-215975.
- 70 • Kang C, Tomkow L, Farrington R. Access to primary health care for asylum seekers and refugees: a qualitative study of service user experiences in the UK. *British Journal of General Practice*. 2019;69(685):e537-e545. **Insight into available services.**
- 71 Munawar K, Choudhry FR, Hadi MA, Khan TM. Prevalence of and Factors Contributing to Glue Sniffing in the South Asian Association for Regional Cooperation (SAARC) Region: A Scoping Review and Meta-analysis. *Subst Use Misuse*. 2020;55(5):752-762. doi: 10.1080/10826084.2019.1701036. Epub 2019 Dec 18. PMID: 31852359.
- 72 Acharya AK, Bryson Clark J. Narco-violence, forced displacement, and sex trafficking: a qualitative study in Mexico. *Global Crime* 2021; **0**: 1–17.
- 73 Achilli L. Smuggling and trafficking in human beings at the time of the Syrian conflict. In: *Human Trafficking and Exploitation*. Routledge, 2017.
- 74 David F, Bryant K, Joudo Larsen J. Migrants and their vulnerability to human trafficking, modern slavery and forced labour. Geneva: International Organization for Migration, 2019 https://publications.iom.int/system/files/pdf/migrants_and_their_vulnerability.pdf (accessed April 19, 2021).
- 75 Holmes SM, Castañeda H. Representing the “European refugee crisis” in Germany and beyond: Deservingness and difference, life and death. *American Ethnologist* 2016; **43**: 12–24.
- 76 UNHCR, editor. The economic, social and cultural rights of migrants in an irregular situation. New York ; Geneva: United Nations, 2014.
- 77 Hiam L, Steele S, McKee M (2018) Creating a ‘hostile environment for migrants’: the British government’s use of health service data to restrict immigration is a very bad idea. *Health Econ Policy Law* 13(2):107–117
- 78 Swendsen J, Conway KP, Degenhardt L, *et al.* Mental disorders as risk factors for substance use, abuse and dependence: results from the 10- year follow- up of the National Comorbidity Survey. *Addiction* 2010; **105**: 1117–28.

- 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
- 79 Karriker- Jaffe KJ. Areas of disadvantage: A systematic review of effects of area- level socioeconomic status on substance use outcomes. *Drug and alcohol review* 2011; **30**: 84–95.
- 80 Hewlett M, Merry L, Mishra A, Islam R, Wali RM, Gagnon A. Alcohol use among Bhutanese refugees in Nepal. *International Journal of Migration, Health and Social Care* 2015. DOI:10.1108/IJMHS-05-2014-0017.
- 81 Salas-Wright CP, Vaughn MG, Clark TT, Terzis LD, Córdova D. Substance use disorders among first- and second- generation immigrant adults in the United States: evidence of an immigrant paradox? *J Stud Alcohol Drugs*. 2014 Nov;75(6):958-67. doi: 10.15288/jsad.2014.75.958. PMID: 25343653; PMCID: PMC4211337.
- 82 Rubalcava LN, Teruel GM, Thomas D, Goldman N. The healthy migrant effect: New findings from the Mexican Family Life Survey. *American Journal of Public Health*. 2008;98:78–84.
- 83 Vaughn MG, Salas-Wright CP, DeLisi M, Maynard BR. The immigrant paradox: Immigrants are less antisocial than native-born Americans. *Social Psychiatry and Psychiatric Epidemiology*. 2014; 49:1129–1137.
- 84 Charles CZ. New York, NY: Russell Sage Foundation; 2006. *Won't you be my neighbor? Race, class, and residence in Los Angeles*.
- 85 Hacker K, Chu J, Leung C, Marra R, Pirie A, Brahim M, Marlin RP. The impact of Immigration and Customs Enforcement on immigrant health: Perceptions of immigrants in Everett, Massachusetts, USA. *Social Science & Medicine*. 2011;73:586–594.
- 86 Abraido-Lanza AF, Chao MT, Florez KR. Do healthy behaviors decline with greater acculturation? Implications for the Latino mortality paradox. *Soc Sci Med* 2005; **61**. DOI:10.1016/j.socscimed.2005.01.016.
- 87 Milner K, Khawaja NG. Sudanese refugees in Australia: The impact of acculturation stress. *Journal of Pacific Rim Psychology* 2010; **4**: 19–29.
- 88 Tsai AC. Syndemics: A theory in search of data or data in search of a theory? *Social Science & Medicine* 2018; **206**: 117–22.
- 89 •• Slagboom MN, Crone MR, Reis R. Exploring syndemic vulnerability across generations: A case study of a former fishing village in the Netherlands. *Social Science & Medicine* 2022; 295: 113122. **Insight into syndemic approach.**
- 90 Pipyrrou S. Displaced Children, Silence, and the Violence of Humanitarianism in Cold War Italy. *Anthropological Quarterly* 2020; 93: 429–59.
- 91 Magwood O, Leki VY, Kpade V, Saad A, Alkhateeb Q, Gebremeskel A, Rehman A, Hannigan T, Pinto N, Sun AH, Kendall C, Kozloff N, Tweed EJ, Ponka D, Pottie K. Common trust and personal safety issues: A systematic review on the acceptability of health and social interventions for persons with lived experience of homelessness. *PLoS One*. 2019 Dec 30;14(12):e0226306. doi: 10.1371/journal.pone.0226306. PMID: 31887152; PMCID: PMC6936789.

1 92 Miler JA, Carver H, Foster R, Parkes T. Provision of peer support at the intersection of
2 homelessness and problem substance use services: a systematic ‘state of the art’ review.
3 *BMC Public Health* 2020; **20**: 641.

4 93 Paisi M, Kay E, Plessas A, *et al.* Barriers and enablers to accessing dental services for
5 people experiencing homelessness: A systematic review. *Community Dentistry and Oral*
6 *Epidemiology* 2019; **47**: 103–11.
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65





