Mental health of refugees and migrants: risk and protective factors and access to care

Global Evidence Review on Health and Migration (GEHM) series

The GEHM series is an evidence-informed tool for policy-makers on migration-related public health priorities of the Department of Health and Migration. These reviews aim to respond to policy questions identified as priorities by summarizing the best available evidence worldwide and proposing policy considerations. By addressing data gaps on the health status of refugees and migrants, the GEHM series and accompanying policy briefs aim to support evidence-informed policy-making and targeted interventions that are impactful and make a difference in the lives of these populations.

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(Global Evidence Review on Health and Migration (GEHM) series)

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Foreword

International migration is, by definition, a complex phenomenon, which is likely to grow in size and complexity over the coming years. Accordingly, WHO's work for refugees and migrants is based on the 2019 WHO framework of priorities and guiding principles to promote the health of refugees and migrants. This is founded on the proposition that refugees and migrants have health rights and needs requiring culturally sensitive and effective care that recognizes the impact of migration on physical and mental health.

Globally, the numbers of migrants are striking and can only be expected to increase. In 2020 there were approximately 1 billion migrants worldwide, representing about one in eight of the global population. These include 281 million international migrants and 82.4 million forcibly displaced people (including 48 million internally displaced persons, 26.4 million refugees and 4.1 million asylum seekers).

Refugees and migrants are a heterogeneous group of people who are on the move or have moved away from their usual place of residence. They have many different circumstances and experiences; they may move alone or with their families, and within or across internationally recognized state borders. They have many reasons for moving, including to avoid conflict and violence, to improve their financial situation, for marriage, for reunification with resettled family or for better educational opportunities.

There are many different types of refugee and migrant journey: some may be short and straightforward, whereas others may be long and perilous, with the risks of trafficking and interception by authorities. When refugees and migrants arrive in another country, their experiences are influenced by their legal status, the political environment and their access to housing, health care and employment.

The experience of migration is a key determinant of health and well-being. Refugees and migrants may represent the most vulnerable members of society and are often faced with xenophobia; discrimination; poor living, housing and working conditions; and inadequate access to health services, despite frequent physical and mental health problems. These risk factors have, of course, been exacerbated recently among refugees and migrants by the COVID-19 pandemic.

Migration represents a major life transition that may benefit mental health and well-being among some migrant and refugee groups, either immediately or over a longer period. Yet, for other groups, migration may adversely affect mental health – refugees and migrants may be at an increased risk of anxiety, depression, psychosis and suicide. They may be excluded from society because of stigma and discrimination, and denied their human rights. They may also be subject to physical and sexual abuse. In addition, they may face significant barriers that hamper the availability, accessibility, acceptability and affordability of health services for these populations.

The WHO *Mental Health Action Plan 2013–2020* calls for services that are responsive to the needs of refugees and migrants with mental health conditions. However, most refugees and migrants still do not receive access to mental health care. Cultural awareness and competence among providers and language-appropriate services are some of the barriers to accessing mental health service.

As a starting point for more effective policy and planning, a better understanding is needed of what factors place refugees and migrants at risk of mental health conditions and what helps and inhibits their access to mental health services. By synthesizing the literature, this Global Evidence Review on Health and Migration (GEHM) aims to improve the understanding of the risk and protective factors that contribute to mental health conditions among refugees and migrants, the facilitators and barriers for refugees and migrants in accessing mental health services and, specifically, the facilitators and barriers for refugees and migrants in accessing mental health services during the COVID-19 pandemic.

The findings of this GEHM are fundamental to developing better policies and practices to ensure that refugees and migrants receive their rightful mental health care and support.

Such policies and practices should first safeguard the human rights of all refugees and migrants, regardless of legal status, by strengthening national and international policies and criminal justice measures that protect them from violence and discrimination. More specifically, policies should also recognize the social determinants of mental health and prioritize basic needs, including food, housing, safety and education or employment; promote social integration; facilitate refugees' and migrants' participation in society; and reduce anti-migrant sentiment and discrimination. All of these interventions are likely to be beneficial for mental health.

Policies should also strengthen community capacity for and access to mental health care through provision of information about services, engaging with migrant communities and groups to help them to support themselves, and establishing community-based referral pathways. Choices should be provided in terms of access to mental health care.

The capacity of health care workers to assess and treat mental health conditions in refugees and migrants from diverse cultural backgrounds should be strengthened by training and continuous support, as well as by improving the capacity of other relevant cadres (such as migration officers, social workers and teachers) to recognize and support refugees and migrants with mental health conditions.

Much needs to be done, at all levels. We must not leave refugees and migrants behind in our public health and health system development. Strengthening the capacities of health systems to respond to the health needs, including the mental health needs, of refugee and migrant populations is vital. A starting point is to recognize the existing inequities in health system capacities and responses and the need to build health systems capacities and resilience based on an informed and responsive health workforce.

We need more political commitment to and resources for health. Health systems must be strengthened so that they are sensitive to the migrants' needs, languages and unique health problems. In addition, good health monitoring and data are needed to understand these health needs and to set priorities that integrate the care of refugees and migrants into the overall health system.

It is hoped that the publication of this WHO GEHM, Mental health of refugees and migrants: risk and protective factors and access to care, will contribute to achieving these goals.

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Preface

Global evidence on the health of refugees and migrants is limited and governments worldwide often grapple with developing and implementing legal frameworks and policies that address the needs of these populations.

To help to meet this gap in the available evidence and to support evidence-informed policy-making and interventions, the Department of Health and Migration has launched the Global Evidence Review on Health and Migration (GEHM) series.

These reports aim to provide findings and policy considerations that will facilitate international dialogue and knowledge sharing about the health needs of refugees and migrants and how to address these, as well as strategically supporting policy-making that both fosters public health and protects the right to health of refugees and migrants.

This report focuses on the mental health needs of refugees and migrants, and the available evidence on risk and protective factors and access to care. Policies are needed that safeguard human rights, including the right to health for all refugees and migrants, regardless of legal status; reduce anti-migrant stigma and discrimination; and recognize the social determinants of mental health by prioritizing basic needs, for example food, housing, safety, education and employment.

Access to mental health care must also be strengthened by engaging with refugee and migrant communities and offering choices and pathways regarding care and providers. Care itself needs to be strengthened through improving the capacity of health care workers to assess and treat mental health conditions among refugees and migrants from diverse cultural backgrounds.

This GEHM addresses these questions through an umbrella of systematic reviews published since 2012, as well as systematic reviews of empirical studies published since the start of 2020, using customized search strategies and key terms.

What are the findings? The reviews paint a complicated and mixed picture of the patterns of risk and protective factors and of the facilitators and barriers to care at the individual, family, community and national government levels. These can be considered within five key areas: self-identity and community support; basic needs and security; cultural concepts of mental health as well as related stigma; potential exposure to adversity and potentially traumatic events; and issues in navigating mental health and other systems and services.

There is still much to be learned. This report also identifies key research gaps that need to be addressed in future research. An important point that emerged from the reviews is that health workers need support to provide culturally sensitive care for refugees and migrants. WHO recently published the document *Refugee and Migrant Health: Global Competency Standards for Health Workers*, which is designed to help health workers. These are flexible standards that can be adapted to local contexts but also convey universal expectations concerning improvements in the care that should be offered to refugees and migrants.

Refugees and migrants may be among the most at risk people in our communities. Strong legislation, policies and practices are needed to ensure their right to health and to provide for their physical and mental health needs in ways that they find accessible and acceptable. This GEHM on the mental health of refugees and migrants outlines the scale of the challenge, as well as some of the factors associated with the mental health burden among refugees and migrants, and the responses needed. It is hoped this report will help policy-makers and health professionals to respond more effectively to the mental health needs of these populations.

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As for other reports in the Global Evidence Review on Health and Migration series, Department of Health and Migration, Division of Universal Health Coverage and Healthier Populations collaborated with other WHO departments: with the Department of Mental Health and Substance Use, Director Dévora Kestel, for this publication.

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Interdivisional Working Group

With the overall objective of strengthening normative research and evidence gathering works of the Department of Health and Migration, Division of Universal Health Coverage and Healthier Populations, an Interdivisional Working Group has been established to support the overall production of the Global Evidence Review series. Representatives from Science and Data Divisions in the Interdivisional Working Group have kindly agreed to support this initiative from normative, methodological, research and data perspectives, and to advise technical staff from Department of Health and Migration, Division of Universal Health Coverage and Healthier Populations and other relevant programme areas as appropriate in various stages of development of the Global Evidence Review series.

Abbreviations

CI	confidence interval
CNKI	China National Knowledge Infrastructure (database)
GAP	*Global Action Plan on Promoting the Health of Refugees and Migrants*
GEHM	Global Evidence Review on Health and Migration (series)
IASC	Inter-Agency Standing Committee
IDP	internally displaced person
IOM	International Organization for Migration
LGBTQI+	lesbian, gay, bisexual, transgender, queer and intersex
LMICs	low- and middle-income countries
mhGAP	*mhGAP Humanitarian Intervention Guide (mhGAP-HIG)*
MHPSS	mental health and psychosocial support
OR	odds ratio
PTSD	post-traumatic stress disorder
UASC	unaccompanied or separated children
UNHCR	Office of the United Nations High Commissioner for Refugees

Executive summary

Refugees and migrants are a heterogeneous group of people who are on the move or have moved away from their usual place of residence. Refugees and migrants have different circumstances and experiences: they can move with or without their family and within or across internationally recognized state borders for reasons including avoiding conflict and violence, to improve their financial situation, for marriage, to reunite with a resettled family or for educational opportunities. Journeys may be short and straightforward, or long and perilous, with risks of trafficking. The experiences of refugees and migrants arriving in a country are influenced by their legal status, the political environment, and access to housing, health care and employment.

Migration represents a major life transition, with some refugee and migrant groups experiencing benefits for their mental health and well-being. However, other groups may be at an increased risk of mental health conditions, including depression, anxiety and psychosis. Potential consequences of these conditions include premature death by suicide, physical ill health and loss of economic productivity. People with mental health conditions may be excluded from society owing to stigma and discrimination and denied their human rights. People with mental health conditions are more likely to experience physical and sexual abuse compared with the general population.

WHO and its Member States have recently reaffirmed the goals and objectives of the WHO *Global Action Plan on Promoting the Health of Refugees and Migrants* (GAP) by extending the time frame of the GAP from 2023 until 2030.

The WHO *Mental Health Action Plan 2013–2020* calls for services that are responsive to the needs of refugees and migrants with mental health conditions, yet most do not receive mental health care. Barriers to mental health services include lack of cultural awareness and competence among providers and a lack of language-appropriate services. Family and community support may be disrupted by migration, and the COVID-19 pandemic and lockdown restrictions have further stretched and strained these support systems.

A starting point for more effective policy and programming is understanding what factors put refugees and migrants at risk of mental health conditions and

what factors help or inhibit their access to mental health services. Therefore, this Global Evidence Review on Health and Migration (GEHM) aims to answer the following policy questions.

1. What risk and protective factors contribute to mental health conditions among refugees and migrants?

2. What are the facilitators and barriers for refugees and migrants in accessing mental health services?

3. What facilitators and barriers for refugees and migrants in accessing mental health services are prevalent during the COVID-19 pandemic?

The first and second questions were addressed through an umbrella review that identified all relevant systematic reviews published since 2012. The third question was addressed through a systematic review of empirical studies published since the start of 2020. Relevant academic literature was identified through systematic searches of global databases and key mental health journals worldwide, and grey literature was identified by searching relevant websites and databases. Qualitative, quantitative and mixed-methods studies that focused on refugees and migrants and outcomes of depression, psychosis, behavioural disorders, dementia, substance use disorders, self-harm and suicide, post-traumatic stress disorder (PTSD) and other stress-related disorders were included. All records were independently screened by two reviewers using pre-defined inclusion and exclusion criteria. There were no language restrictions placed on the search.

The review found complex and mixed patterns of risk and protective factors and of facilitators and barriers to care at all levels (individual, family, community and national government). Key gaps were (i) longitudinal studies of risk and protective factors, especially health, policy-level and environmental factors; (ii) studies on refugees and migrants who have migrated to low- and middle-income countries (LMICs); and (ii) studies on older refugees and migrants; lesbian, gay, bisexual, transgender, queer and intersex (LGBTQI)+ refugee and migrant communities; and internal migrants, particularly labour migrants.

Five high-level themes emerged, each of which has implications for research and policy and is relevant across refugee and migrant groups, contexts and stages of the migration process.

The first theme, **self-identity and community support**, may be challenged when refugees and migrants are geographically and temporally dislocated from their pre-migration lives and exposed to new contexts and cultures. Being part of a community with a shared ethnocultural background and participating in school life for children are associated with better mental health. Therefore, policies that promote social integration and strengthen family bonds and community networks may benefit refugees and migrants of all ages.

The second theme, **basic needs and security**, characterizes all stages of the migration journey, and lack of these is a risk factor for mental health conditions: insecure income, employment, housing, legal status and access to food were consistently associated with poor mental health. The threats of deportation, imprisonment and resettlement are realities for many migrants without legal status and for asylum seekers. Therefore, guaranteeing the basic needs (food security and nutrition, protection, accommodation and general subsistence) of these populations should be the first level of intervention. A flexible approach to mental health care provision, such as providing services outside normal working hours that is accessible to individuals with no fixed housing, along with acute mental health care services for refugees and migrants who have delayed seeking treatment, is likely to be beneficial.

The third theme, **cultural concepts of mental health as well as stigma**, relates to the ways in which mental health diagnoses and treatments may not adequately engage with the meaning that people ascribe to their problems. Refugees and migrants may experience stigma because of their migrant status and their mental health condition, which may prevent or delay seeking care. Locating mental health services outside the health system (e.g. in community centres, women's groups and schools), matching therapists or other helpers to clients (e.g. based on gender, language or cultural background), mobilizing communities to support themselves (e.g. training lay workers and peer supporters) and offering a variety of individual, group and tele-mental health care supports could help to improve the acceptability of services and reduce stigma-related barriers.

The fourth theme is **exposure to adversity and potentially traumatic events.** Such exposures can occur before, during and after the migration process and are both risk factors for mental health conditions and barriers to care. Human rights-based policies and criminal justice measures are needed to protect refugees and migrants from adversities and potentially traumatic events,

including by providing safe migration channels, limiting the use of detention (especially for vulnerable groups), ensuring that detention is used only as a last resort, and improving the health of detained refugees, migrants and asylum seekers. Media campaigns to improve public awareness of violence against refugees and migrants, promote accurate information, emphasize the positive contributions of refugees and migrants, and challenge harmful stereotyping of refugee and migrant groups are potential approaches to reducing community-based discrimination and violence against refugees and migrants.

The fifth theme, **navigating mental health and other systems and services**, concerns the difficulties that refugees and migrants may face owing to lack of knowledge about their entitlements and difficulties in understanding the language, obtaining the necessary legal documents and accessing online information. Services should proactively engage with refugee and migrant groups, for example by providing transport, proficient and timely translators, and accompaniment to appointments where desired. Refugees and migrants may need practical support with immigration and registration documents and procedures. Language and digital literacy programmes will improve access to local services and community groups, enhance employability and foster a sense of belonging.

Based on these five themes, the main policy considerations to benefit the mental health of refugees and migrants are to:

- implement policies and programmes for refugees and migrants that promote their social integration, their participation in society and reduce anti-migrant sentiment and discrimination;
- ensure that migrant policies recognize an address the social determinants of mental health and prioritize basic needs, including food, housing, safety, and education or employment;
- strengthen the capacity of health care workers to assess and treat mental health conditions among refugees and migrants from diverse cultural backgrounds, as well as the capacity of other relevant professionals (migration officers, social workers, teachers) to recognize and support refugees and migrants with mental health conditions;

- provide choices about the delivery model for mental health (including the location, service provider, referral pathway and treatment approach) to improve access to care and acceptability, empower individuals and optimize outcomes;
- safeguard the human rights of all refugees and migrants regardless of legal status by strengthening national and international policies and criminal justice measures that protect migrants from discrimination and violence; and
- strengthen community capacity for and access to mental health care by providing information about services, providing psychoeducation, mobilizing communities to support themselves, proactively engaging with migrant groups and providing community-based referral pathways.

1. Introduction

Refugees and migrants represent a heterogeneous group of people on the move or who have moved away from their normal place of residence, and they may have greatly different circumstances and experiences. Also, the rights that migrants and refugees have vary significantly based on their different legal status. For example, individuals may move with or without their family and within or across internationally recognized state borders for many reasons, including to avoid conflict and violence, to improve their financial situation, for marriage, to reunite with resettled family members or for educational opportunities *(1)*.

In 2021 there were an estimated 258 million international migrants globally *(2)*. There are thought to be at least three times more internal migrants than international migrants; however, lack of data precludes precise estimates *(3)*. By the end of 2021 the total number of forcibly displaced people was 89.3 million, of whom 53.2 million were internally displaced people (IDPs), 27.1 million were refugees and 4.6 million were asylum seekers *(4)*.[1] Box 1 summarizes some commonly used definitions for different refugee and migrant groups. The International Organization for Migration (IOM) and Office of the United Nations High Commissioner for Refugees (UNHCR) emphasize that refugees and migrants represent two distinct categories that are governed by different frameworks: the Global Compact for Safe, Orderly and Regular Migration *(5)* and the Global Compact on Refugees *(6)*.

[1] The data presented here do not include the mass displacement resulting from the conflict in Ukraine that began on 24 February 2022. As of 30 August 2022, after the writing of this report had been completed, the United Nations High Commissioner for Refugees reported 7 007 381 refugees from Ukraine in Europe. A total of 3 969 537 refugees have registered for European Union temporary protection or similar national protection schemes in Europe. In addition, there have been 11 976 498 border crossings out of Ukraine and 5 324 798 border crossings into Ukraine *(4)*.

Box 1. Overview of migration terms

Asylum seeker. A person who is seeking international protection *(7)*. Prior to being granted legal status in the destination country, refugees are termed asylum seekers. Not all asylum seekers will be granted refugee status.

Internally displaced person. Someone who has been forced flee from their home to avoid conflict, violence and disasters and has moved within an internationally recognized state borders *(8)*.

Migrant. According to the IOM, a migrant is an "umbrella term, not defined under international law, reflecting the common lay understanding of a person who moves away from his or her place of usual residence, whether within a country or across a border, temporarily or permanently, and for a variety of reasons" *(9)*.

The following categories of migrant are not mutually exclusive.

- *Internal migrant.* A person who has moved within internationally recognized state borders and includes rural-to-rural migration and rural-to-urban migration *(10)*.
- *International migrant.* Defined by the United Nations Department of Economic and Social Affairs as any person who changes his or her country of usual residence *(8)*.
- *International migrant worker.* The International Labour Organization definition is "all international migrants who are currently employed or unemployed and seeking employment in their present country of residence".
- *Migrant in an irregular situation.* A person who moves or has moved across an international border and is not authorized to enter or to stay in a state pursuant to the law of that state and to international agreements to which that state is a party *(7)*.

Box 1. contd.

- *Refugee.* According to the 1951 United Nations Convention and its 1967 Protocol Relating to the Status of Refugees, under international law and UNHCR's mandate, refugees are individuals living outside their countries of origin who are in need of international protection because of feared persecution, or a serious threat to their life, physical integrity or freedom in their country of origin as a result of persecution, armed conflict, violence or serious public disorder *(11)*. Refugees have legal permission to remain in the host country and may have access to health care, education and welfare benefits.

Victim of trafficking. A person who has been recruited, transported, transferred or harboured through force, fraud or deception with the aim of exploitation for profit or other means *(12)*.

This report uses the term ***refugees and migrants*** to refer to all migrants defined above (asylum seekers, IDPs, refugees, migrants and victims of trafficking). Where feasible, data are presented with reference to specific refugee and migrant groups.

1.1 Background

1.1.1 Mental health risks of migration

The impact of migration on mental health is increasingly a focus of international health research and policy *(1)*. WHO defines mental health as "a state of well-being that enables people to cope with the stresses of life, to realize their abilities, to learn well and work well, and to contribute to their communities" *(13)*. A mental disorder is defined as "a clinically recognizable set of symptoms or behaviours associated in most cases with distress and with interference with personal functions" *(14)*. Mental health conditions encompass a broad range of mental disorders, psychosocial disabilities and other mental states associated with significant distress, impaired functioning or risk of self-harm *(13)*. This review uses the term "mental health condition" except when describing data for specific categories of mental disorder. Box 2 summarizes the key mental health terms used in this report.

Box 2. Overview of mental health terms

Mental disorder. A syndrome characterized by a clinically significant disturbance in cognition, emotional regulation or behaviour that reflects dysfunction in the psychological, biological or developmental processes that underlie mental and behavioural function. Such disturbances are usually associated with distress or impairment in personal, family, social, educational or occupational function or with other important areas of function *(14)*.

Mental health. A state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well, work well and contribute to their communities. Mental health is an integral component of health and well-being: it is more than the absence of mental disorder *(13)*.

Mental health condition. A broad term covering mental disorders and psychosocial disabilities, as well as other mental states associated with significant distress, impaired functioning or risk of self-harm *(13)*.

Psychosocial disability. A disability that arises when someone with long-term mental impairment interacts with various barriers (e.g. discrimination, stigma and exclusion) that may hinder their full and effective participation in society on an equitable basis *(13)*.

Mental health conditions are among the top 10 leading causes of the global burden of disease. The Global Burden of Disease Study estimates that mental disorders account for 4.9% of disability-adjusted life-years *(15)*. Other analyses suggest that this is an underestimate and that mental disorders actually account for 13.0% of disability-adjusted life-years *(16)*. The consequences of mental health conditions are manifold. People with severe mental disorders are at an increased risk of premature death due to suicide and are predisposed to conditions such as cardiovascular diseases, diabetes, infectious diseases and undernutrition. Having a severe mental disorder is associated with a 60% higher chance of dying prematurely from a noncommunicable disease that has been neglected because of the underlying mental condition, and

up to 8% of the years of life lost globally are thought to correspond to the excess deaths due to mental health conditions *(16)*. The consequences of untreated mental health conditions in childhood and adolescence include educational difficulties, physical ill health and social exclusion, which lead to poorer physical and mental health outcomes and lower economic productivity in adulthood. People with mental health conditions are often excluded from society owing to stigma and discrimination and denied their human rights. Poverty, homelessness and exposure to physical and sexual abuse are more common among people with mental health conditions compared with the general population *(17)*. Mental disorders are expected to cost the global economy US$ 16.3 trillion between 2011 and 2030 *(18)*.

In some contexts, refugees and migrants are at risk of developing mental disorders owing to a cluster of migration-specific stressors (e.g. a difficult migration journey), in addition to more general stressors (e.g. exposure to socioeconomic adversity) *(19)*. Particularly vulnerable groups include refugees and victims of trafficking who have experienced conflict, potentially traumatic events and major losses *(20–23)*. WHO estimates that one in five people (22.1%) in conflict-affected areas may experience depression, anxiety, PTSD, bipolar disorder or schizophrenia *(24)*. A recent meta-analysis showed that international migrants in Europe are at an increased risk of psychotic disorders compared with non-migrants *(25)*, and a Swedish study found an increased incidence of psychosis in refugees *(26)*. Some studies suggest that the prevalence of mental health conditions among displaced and refugee children resettled in high-income countries is higher than in their non-refugee peers *(27)*.

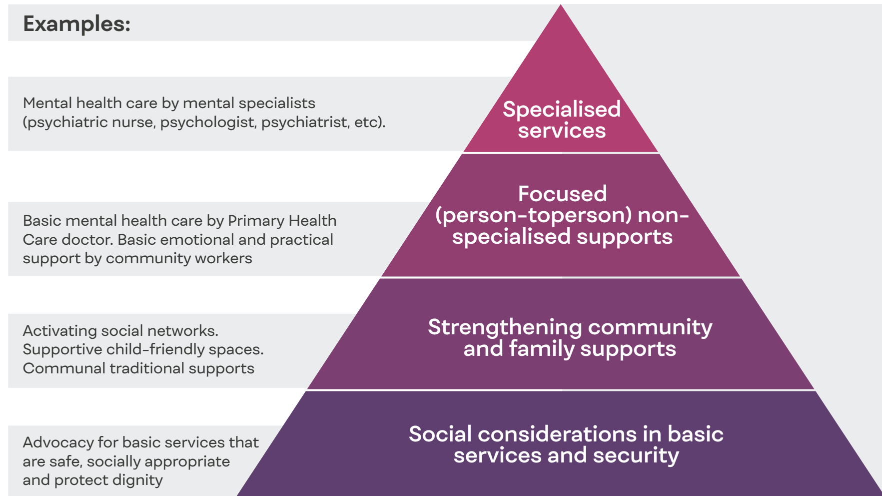
In other contexts, refugee and migrant groups may not experience an elevated risk of mental health conditions. For example, a systematic review found no evidence that migrant women were at greater risk of perinatal depression than non-migrant women, although this may be partly due to the underdetection of depression resulting from the use of culturally insensitive measures *(28)*. For some groups, the process of migration may even promote mental health. A small study of adolescents in six countries (Australia, Canada, China, New Zealand, South Africa and United Kingdom) reported that adolescent migrants were more resilient than non-migrants in the host country *(29)*. Generally, however, evidence in this area is mixed, with many larger studies reporting no significant differences in mental health outcomes between refugees and migrants compared with the host population *(30,31)*. Synthesizing evidence on risk and protective factors for mental health conditions, as well as the factors underpinning greater resilience and how these factors cluster in refugees and migrants, will help to identify the most vulnerable groups and improve the targeting of interventions.

1.1.2 Mental health treatment for refugees and migrants

Globally, a significant proportion of people with mental health conditions do not receive treatment. For example, data from the World Mental Health Surveys in 21 high-, middle- and low-income countries suggest that only 27.6% of people with an anxiety disorder received any treatment and only 9.8% received adequate care *(32)*. Among people with major depressive disorder, 41.8% received mental health services, and these were considered effective for only 23.2% *(33)*. Evidence suggests that the treatment gap for mental disorders is even wider among refugees and migrants. In a study of 4226 Asian and Latino adults in the United States of America, those who had migrated to the country were 40% less likely to use mental health services than those who were born there *(34)*. In a study of mental health service use among 1678 Syrian refugees living in Türkiye, the treatment gap was 90% for anxiety, 89% for PTSD and 88% for depression *(35)*.

Research and policy have sought to improve mental health and psychosocial support (MHPSS) for refugees and migrants. WHO's *Mental Health Action Plan 2013–2020* calls for services to be responsive to the needs of refugees and migrants *(36)*. Several training tools, operational guidance and policy documents relate to refugees, asylum seekers and IDPs. These include the *IASC (2007) Guidelines on Mental Health and Psychosocial Support in Emergency Settings (37)*, *The Sphere Handbook (38)*, the WHO/UNHCR's *mhGAP Humanitarian Intervention Guide (mhGAP-HIG)* (mhGAP) *(39)*, the UNHCR's *Operational Guidance for Mental Health* and *Psychosocial Support in Refugee Operations (40)* and *Global Public Health Strategy 2021–2025 (41)*, the IOM's *Manual on Community-based Mental Health and Psychological Support in Emergencies and Displacement (42)* and *Mental Health and Psychosocial Support for Resettled Refugees (43)*, and the Inter-agency Network for Education in Emergencies's *Mental Health and Psychosocial Support Minimum Services Package (44)*. The Inter-Agency Standing Committee (IASC) outlines steps for actors involved in the humanitarian response *(37,45)*. The steps are conceptualized as a multilayered pyramid of interventions (Fig. 1) that provide (i) basic services and security in a way that is conducive to mental health and psychosocial well-being, strengthening community and family support; (ii) focused, non-specialized basic mental health care and support (e.g. by primary health care professionals or community workers); and (iii) services delivered by mental health specialists *(37)*.

Fig. 1. Intervention pyramid for MHPSS in emergencies



Source: reproduced without change and with permission from IASC *(37)*.

The 152nd Executive Board has decided to extend the time frame of the WHO GAP from finishing in 2023 to finishing in 2030 to ensure that Member States continue their efforts to improve global health equity by addressing the physical and mental health and well-being of refugees and migrants. The GAP emphasizes the importance of ensuring that the provision of health promotion, disease prevention, timely diagnosis and treatment of mental and behavioural disorders are addressed, and that international guidance on mental health for migrants is still lacking *(46)*. In 2011 the World Psychiatric Association published evidence-based advice for clinicians and policy-makers on providing appropriate and accessible mental health care for refugees and migrants that highlights the importance of a life-course approach and for consideration of special groups (such as women, children, older people and individuals who identify as LGBTQI+) *(47)*. The recommendations included ensuring

the availability of cultural awareness and competence training for health care professionals and of public mental health messaging and language-appropriate services. In high-income countries, evidence supports the integration of mental health services into primary care for refugee and migrant populations but barriers to care remain *(48,49)*.

In 2021 the WHO *Refugee and Migrant Health: Global Competency Standards for Health Workers (50)* was published to promote the provision of culturally sensitive health care for refugees and migrants as a move towards achieving universal health coverage for all populations and leaving no refugees and migrants behind. The Standards can be applied across different health care settings and used flexibly to meet the specific contexts in which health workers operate, while conveying general expectations of the health workforce in delivering care to people with experiences of migration and displacement. Particular emphasis is given to the importance of addressing the MHPSS needs of refugees and migrants by providing care and interventions that are sensitive to experiences of chronic hardship, potentially traumatic events, grief and loss and by facilitating referrals to additional services and support as needed.

However, research is lacking on approaches to mental health care for refugees and migrants in LMICs. Identifying what helps and what hinders refugees and migrants from accessing mental health care could improve their access to mental health services.

1.2 Conceptual framework

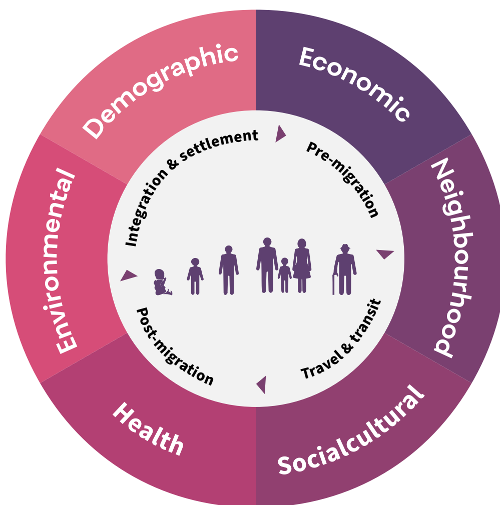
Conceptual models were developed to inform the GEHM protocol and interpretation of the findings.

1.2.1 Conceptual model of determinants of mental health conditions among refugees and migrants

Fig. 2 shows the conceptual model of determinants of mental health that was used to inform the GEHM. The model attempts to capture the social, economic and political environment in which migration occurs. It draws on the framework by Lund et al. that categorizes the determinants as social

and cultural, environmental, neighbourhood, economic or demographic *(51)*. A category for health determinants was also incorporated to capture the relationship between physical ill health and mental health conditions. The model incorporates Bronfenbrenner's Ecological Systems Theory, which distinguishes between proximal (i.e. factors in an individual's immediate environment that influence mental health) and distal (i.e. structural factors that impact at a population level and may be mediated by proximal factors) determinants and acknowledges that xenophobia and discrimination are manifested at all ecological levels *(51,52)*. Biological and family-level factors are conceptualized as mediating the effects of proximal and distal determinants on mental health. The model also includes a life-course component and the four key stages of refugees' and migrants' journeys (pre-migration, travel and transit, post-migration, and integration and settlement) and takes account of the fact that these journeys are rarely linear; it can take many years before resettlement in a host country occurs, and refugees and migrants may return or be sent back to their country of origin and/or migrate onwards *(1)*.

Fig. 2. Conceptual model of determinants of mental health conditions across the life-course among refugees and migrants

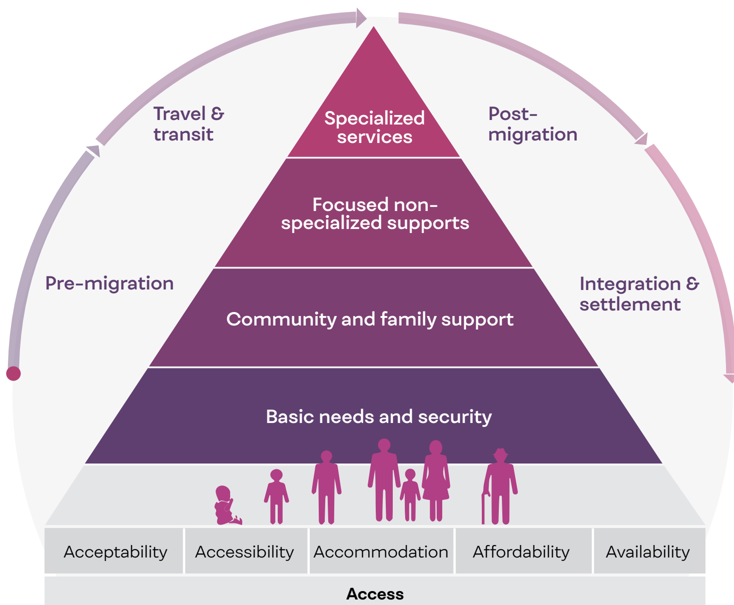


Sources: adapted from Lund et al. *(51)* and Bronfenbrenner *(52)*.

1.2.2 Conceptual model of access to mental health care among refugees and migrants

A conceptual model for access to mental health care for refugees and migrants was developed for this GEHM (Fig. 3), using the Penchansky & Thomas model of access, which defines access as the degree of fit between service users and the system as a starting point (53). The model conceptualizes five dimensions of access: acceptability (attitudes of service users and service providers towards each other), accessibility (location of services in relation to the location of service users), accommodation (the extent to which services are organized around the needs of service users), affordability (perceptions of how much a service is worth relative to how much it costs) and availability (whether there are sufficient services/resources to cope with the volume and types of disorder). It incorporates the IASC framework of MHPSS services to capture the variety and structure of mental health services for refugees and migrants (37,45) and conceptualizes access to mental health care during the different stages of the migration journey and across the life-course. The model is relevant to international and internal migration, although the barriers and facilitators to access care may differ in these contexts.

Fig. 3. Conceptual model of access to mental health care among refugees and migrants across the life-course



1.3 Objectives of the report

This GEHM reviewed the global academic and grey literature on refugee and migrant mental health to address the following policy questions.

1. What risk and protective factors contribute to mental health conditions among refugees and migrants?
2. What are the facilitators and barriers (including policy, legal, health system and community-level barriers and gender and age considerations) for refugees and migrants in accessing mental health services?
3. What facilitators and barriers for refugees and migrants in accessing mental health services are prevalent during the COVID-19 pandemic?

1.4 Methodology

Two systematic reviews were conducted to identify global evidence relevant to the policy questions. The first review was an umbrella review that identified evidence from systematic reviews published since 1 January 2012 on the risk and protective factors for mental disorders and on the facilitators and barriers to mental health care for refugees and migrants *(54)*. Searches were performed on the following academic databases: Cochrane Library, Embase, Global Health, MEDLine, PsycINFO, Scopus, Web of Science and the China National Knowledge Infrastructure database. In addition, an extensive grey literature search was conducted. The search was conducted in January 2022. Each record underwent title, abstract and full-text screening and data extraction by two independent assessors. A total of 2972 articles were identified through searches of databases and 33 from grey literature searches. After deduplication, title/abstract screening and full-text screening, 88 systematic reviews fulfilled the inclusion criteria. Of these, 64 focused on risk and protective factors *(20,25,27,28,55–114)* and 36 focused on facilitators and barriers to mental health services *(55–66,115–138)*, with 12 addressing both risk and protective factors and facilitators and barriers *(55–66)*.

The second review was a systematic review of empirical studies published since 1 January 2020 to identify evidence on facilitators and barriers to mental health services during the COVID-19 pandemic. Searches were performed on the same academic databases and grey literature sources as for the umbrella review. Each record underwent title, abstract and full-text screening and data extraction by two independent assessors. A total of 3583 articles were identified with 11 meeting the inclusion criteria *(139–149).* Annex 1 contains full details of the search terms, search strategy and inclusion and exclusion criteria for both reviews. Additional searches were conducted to identify case studies of good practices in research on risk and protective factors for mental health and on accessible mental health services for refugees and migrants, with a particular focus on LMICs. The case studies highlight a diverse range of geographical settings, population groups and types of mental health service.

Annex 2 provides a critical assessment of the systematic reviews included in the umbrella review and of the studies included in the synthesis review using appropriate methodologies *(150–153).*

2. Results

2.1 Risk and protective factors for mental disorders among refugees and migrants

2.1.1 Summary of included studies

Sixty-four systematic reviews assessing risk and protective factors for refugees and migrants were included in the umbrella review *(20,25,27,28,55–114)*. The populations included refugees (44 reviews), migrants (33 reviews), asylum seekers (31 reviews) and IDPs (12 reviews). Forty-seven assessed international migration; 14 assessed both internal and international migration, and three assessed internal migration in China. Reviews focused on adults (24 reviews), children and/or adolescents (17 reviews), people of any age (14 reviews), perinatal women (six reviews), adolescents and adults (two reviews), older people (one review) and people identifying as LGBTQI+ (one review). Resettlement locations were predominantly high-income countries, including Australia, Canada, United States and countries in western Europe. WHO regions of origin included the African Region, Region of the Americas (specifically, south and central America), South-East Asia Region, Eastern Mediterranean Region and Western Pacific Region. Reviews assessed depression (44 reviews), anxiety (40 reviews), PTSD (36 reviews), behavioural/emotional disorders (11 reviews), psychosis (seven reviews), substance use (six reviews), and suicidal behaviour and self-harm (six reviews). Two reviews combined anxiety, depression and PTSD into a single category of general mental health conditions. The number of studies included in the reviews ranged between three and 86. Most reviews were published in English (59 out of 64); of the others, three were in Mandarin, one was in German and one was in Portuguese.

2.1.2 Demographic factors

2.1.2.1 Age

Evidence for associations between age and mental disorders in refugee and migrant populations was mixed. Among children, the association was confounded by the fact that mental disorders become more prevalent with age.

A global review found that refugee children aged 10–12 years had higher rates of depression than those aged 7–9 years *(55)*. A review of refugee unaccompanied or separated children (UASC) from Eritrea living in a refugee camp in Ethiopia reported that those aged 15–17 years had more severe PTSD symptoms compared with younger age groups *(67)*. Possible explanations include the expectation for older children to take on more responsibility and adolescents having been exposed to more adverse events than younger children *(27,68)*. There may be more parental and structured support and greater availability of services for younger refugee and migrant children (as well as age-related policies for education, accommodation and asylum-making processes) *(27,68)*. Unlike depression and anxiety, behavioural disorders may be more common among younger refugee and migrant children. A review of asylum seeker and refugee children found that behavioural disorders were significantly more severe in younger (6–14 years) compared with older (15–17 years) age groups *(69)*.

Age at the time of migration may also impact mental health, although evidence was contradictory for the direction of the association. For refugees resettled in LMICs, being younger at the time of displacement was protective against mental disorders *(68)*, whereas the opposite was true for refugees living in the Islamic Republic of Iran *(70)*. Associations may be confounded by positive selective migration, whereby people who move during early adulthood may be partially or fully through the risk period for illness onset at the time of migration *(71)*.

Among adults, a review of first-generation migrants in Canada reported higher rates of depression and anxiety among younger adults compared with older adults *(72)*. However, other reviews found less conclusive associations: for example, a global review of international migrant workers reported that both younger and older migrants were at higher risk of mental health conditions compared with those in the middle-age group *(73)*, whereas a review of perinatal migrant women from LMICs found that both higher (> 30 years) and lower (< 25 years) maternal age was associated with perinatal depression *(74)*. For refugees, there was some evidence of mental disorders increasing with age: one review reported that younger refugees and asylum seekers from conflict-affected areas found adjustment to a new culture easier than did older refugees *(75)*.

2.1.2.2 Gender and sex

Although **sex** and **gender** are often used interchangeably, they are different concepts. Sex refers to the biological aspects of an individual as determined

by their anatomy, while gender refers to socially constructed characteristics, including the norms, behaviours and roles associated with being a women, man, girl or boy *(154)*. This section used these terms as reported in the individual reviews.

Evidence suggests that, among refugees and migrants, girls and women have a higher risk of depression and anxiety than boys and men – a finding that holds true for the general population *(56,75,76)*. Migrant women living in Canada had higher rates of mood disorders (odds ratio (OR): 1.47; 95% confidence interval (CI): 1.32–1.62) and anxiety disorders (OR: 1.62; 95% CI: 1.45–1.80) than men after adjusting for other sociodemographic characteristics *(72)*. A review of refugee UASC found that female gender was a risk factor for depression and anxiety *(76)*. Among international migrant, refugee and asylum-seeking children living in Europe *(77)* and refugees residing in LMICs *(68)*, girls had higher levels of depression and anxiety, boys had higher levels of behavioural and conduct disorders, and PTSD prevalence was similar across genders, mirroring trends in the general population.

Among adult international refugees and asylum seekers, women were more likely than men to experience PTSD after witnessing the same traumatic event *(57)*. Reviews of perinatal refugee and migrant women showed that these groups are at increased risk of mental disorders compared with non-perinatal refugee and migrant women, as well as with non-migrant and non-refugee perinatal women *(28,58,74)*. Refugees and migrants who identify as LGBTQI+ had a higher risk of mental disorders compared with non-LGBTQI+ refugees and migrants *(59)*.

There was also evidence for gendered patterns of risk exposures, with women disproportionately exposed to adversity and potentially traumatic events, including torture and interpersonal or sexual violence (e.g. Gargiulo et al. *(78)*). Among refugees, women were more likely to experience factors known to perpetuate mental disorders, including lower levels of education and literacy; isolation, loneliness and lack of social networks; stresses related to fulfilling responsibilities as a wife, mother and carer; being required to stay at home to look after children; and low status in some societies, resulting in their needs not being prioritized *(57,60)*. Among migrant women, perinatal women from southern Asia living in high-income countries, those with less power in domestic decision-making and those who were single had more postnatal depressive symptoms *(58,79)*.

Some reviews found a higher risk of mental disorders among men compared with women. Refugee men in Denmark had a higher risk of psychotic disorder compared with refugee women, although this may have been confounded by fewer women presenting to mental health services *(80)*. A review of Iraqi and Syrian refugees found that men had higher rates of anxiety and PTSD than women, but women had higher rates of depressive disorders *(81)*. Other reviews had inconclusive findings *(55,71,82–84)*.

2.1.2.3 Country of origin

Some reviews assessed associations between mental health conditions and country of origin, ethnic background and/or race. These associations are problematic because of the complexity, subjectivity and multifaceted nature of ethnicity and race, as well as the intersectionality of these constructs with migration and the country of origin *(155–158)*. Reported associations are often intertwined with other mechanisms of association, including the socioeconomic, structural, cultural and demographic determinants of health *(156)*. Therefore, wherever possible, this section reports associations with the country of origin.

Data are mixed around country of origin and mental health conditions among refugee and migrant populations. A review of refugee UASC resettled across diverse countries found that those originating from Afghanistan and Iraq had a higher risk of mental disorders than those from other countries *(67)*. Among refugees who had resettled in high-income countries, those who originated from the Middle East and northern Africa had a threefold higher risk of psychotic disorders compared with the refugee group as a whole *(80)*. One review reported that international migrants from African and Caribbean countries of origin, where most of the population is categorized as Black, had a significantly higher risk of psychotic disorders (relative risk: 4.0; 95% CI: 3.4–4.6) than migrants from countries of origin in which most of the population is categorized as White (relative risk: 1.8; 95% CI: 1.6–3.1) *(84)*. These findings may be driven by structural and institutional racism and disproportionate levels of poverty, social exclusion and discrimination experienced by ethnic minority groups in destination countries. Among perinatal migrant women living in Canada, depressive symptoms were highest among women from a minority ethnic background *(28)*.

Disorders relating to substance use may also be associated with country of origin. Among refugee and migrant children living in Europe, those

from Asian countries of origin were less likely to use alcohol and cannabis compared with non-migrant/non-refugee children *(77)*. Cultural norms and religious beliefs from the country of origin may influence different levels of substance use, along with contextual factors in resettlement locations such as social norms and the local availability of substances *(77,85)*.

2.1.2.4 Education

Evidence was inconclusive for an association between educational level and mental health. Some reviews found that refugees and migrants with low levels of education and lower incomes were at greater risk of developing mental disorders, but most reviews suggested no statistically significant association or an unclear direction of association *(27,58,74)*.

2.1.2.5 Religion

Three reviews assessed the association between religious background and mental health conditions among refugees *(60,61,86)*. A belief in God and the ability to visit a place of worship was protective against mental health conditions among refugees resettled in rural Australia *(60)*. A review of adult refugees living in diverse countries globally found that engaging in religious practices was protective against mental disorders *(61)*. Another review reported that some refugee UASC relied on religion as a source of strength and protection. In Australia, refugee youth were found to draw upon moral and religious beliefs to provide a direction, sense of meaning and purpose in life *(86)*. However, religion may not play a strong protective role in all groups of refugees.

2.1.3 Sociocultural factors

2.1.3.1 Language

Lack of proficiency in the host country language was consistently a risk factor for mental disorders among refugees and migrants *(78,87–89)*. Among refugees living in Australia, lower proficiency in English had a significant impact on their ability to develop social networks and was associated with anxiety, depression and PTSD *(60)*. A review of refugees and asylum seekers from conflict-affected areas found that an inability to speak the language of the host country made connecting with and integrating into the local culture difficult *(75)*. Among refugee UASC, poor local language proficiency was a

predictor of PTSD *(67)*, while among child and adolescent refugees and IDPs in a range of resettlement countries, learning the host country's dominant language was a crucial part of sociocultural adaptation *(90)*.

Older refugees and migrants face particular challenges in learning new languages *(75)*. A review of refugee women with a history of traumatic events found that lower proficiency in the language of the host country was associated with greater PTSD severity *(91)*. Reviews of perinatal refugee and migrant women consistently identified lower local language proficiency as a risk factor for postnatal depression *(28,58,74,79,89)*. Conversely, proficiency in the local language was a protective factor *(59,60)*.

2.1.3.2 Cultural practices

In certain contexts, adherence to traditional and cultural practices was identified as a potential protective factor against mental health conditions *(61)*.

In a global review of refugee children, a strong sense of national identity with their country of origin was associated with lower levels of depression and anxiety *(86)*. Migrants' adherence to the cultural practice of "doing the month" (in which women stay within the confines of their homes during the first month after their baby's birth) was protective against postnatal depression among Chinese migrant women who had resettled internationally *(88,89)*.

2.1.3.3 Assimilation and acculturation

In the context of migration, acculturation usually refers to the process of cultural diffusion leading to greater linguistic and cultural similarity between refugees and migrants and the host population *(159)*. Assimilation is a similar but distinct concept, defined as the adaptation of one ethnic or social group – usually a minority group – to the customs, language and values of another *(157)*. Both terms are controversial, overshadowed by connotations of colonial and hegemonic oppression in which minority groups are forced to give up their own culture *(158)*. In presenting the findings of systematic reviews, this section acknowledges the limitations of these concepts.

Several reviews reported associations between acculturation and mental health. It might be assumed that acculturation is most challenging when

moving to a geographically distant country. However, a review of refugee children living in LMICs found that even moving to neighbouring countries can be challenging (68):

> Refugees in low-income and middle-income settings often come from neighbouring regions, with often few differences in culture, religion, and language between refugee and host populations. Evidence suggests, however, that adaptation to apparently similar settings is not necessarily easy, and refugees themselves draw attention to cultural dissimilarity in settings that western researchers judge to be similar on the basis of religion and language. Thus, internally displaced Bosnian adolescents were more likely to be depressed than were those exiled to neighbouring high-income countries, including Croatia with apparent similarities of culture and language and Austria with greater dissimilarity of culture, language, and religion.

The socioeconomic disadvantage and instability that often accompany displacement internally or to a neighbouring country (in contrast to displacement to a more distant country) may outweigh the advantages of cultural and linguistic continuity (68).

Among refugee children and adolescents, participation in school was associated with lower rates of mental disorders. Building relationships and a positive learning environment promoted well-being among refugee children (57,69). A global review of refugee children and adolescents summarized schools' role in promoting psychosocial well-being (90):

> Schools can play a vital role for the adjustment and well-being of resettled refugee children and youth, as they not only provide opportunities of learning and academic progress, but also constitute the context in which a major part of socialization and acculturation processes take place. Feeling accepted and supported by teachers and fellow students at school was associated with lower levels of aggressive behavior, emotional dysregulation and psychological distress and higher levels of well-being.

Case study 1 describes evidence-based guidance on facilitating social mixing between migrants and their new communities.

Case study 1. The power of contact: social mixing to strengthen interaction and social cohesion between migrants and local communities

The IOM has published evidence-based guidance on how to facilitate social mixing between migrants and their new communities to increase interaction, build trust and counter xenophobic and anti-migrant sentiment *(160)*.

The guidance builds on objective 16 of the Global Compact for Safe, Orderly and Regular Migration, which seeks to "empower migrants and communities to realize full inclusion and social cohesion" *(5)*. It recommends that social mixing activities should be fun and goal driven, promote equality amid diversity, foster mutual appreciation of cultures, encourage shared ownership, facilitate guided reflection, provide trusted oversight and facilitation, promote sustained and frequent interaction, and build institutional support and partnership.

Potential types of activity include training and volunteering through sports activities and community volunteering, creating and performing through the visual and performing arts, celebrating shared customs and important holidays, discovering through nature and cultural trips, and learning and discussing through mentorship and film screenings. Barriers to equal and active participation should first be identified and addressed. Monitoring and evaluation are recommended to inform and improve programming.

2.1.4 Economic factors

2.1.4.1 Poverty and living conditions

Consistent with trends in the general population, poor living conditions were associated with mental disorders among refugees and migrants. Among migrants living in Canada, higher neighbourhood disadvantage was associated with mood disorders (OR: 1.23; 95% CI: 1.17–1.29) and anxiety disorders (OR: 1.15; 95% CI: 1.09–1.21) *(72)*. Poverty prior to migration was associated with a fivefold increased likelihood of poor mental health among irregular migrants in the United States *(93)*. Among internal migrants in China, one review found that household economic status did not significantly affect children's mental health *(94)*, whereas another found that parental income significantly affected children's mental health outcomes *(95)*.

Among refugees and asylum seekers, concerns about safety and lack of shelter, food, water, clothing and toilets were associated with a greater likelihood of PTSD *(83)*. Iraqi refugees in the Syrian Arab Republic listed a lack of security and shelter, destroyed homes, overcrowding and poverty as the most important factors affecting their mental health *(81)*. Daily stressors including housing difficulties and employment-related issues were strong predictors of anxiety and PTSD in conflict-affected refugees and asylum seekers *(20)*. Among refugees and asylum seekers in Germany, unmet needs for housing, food and other daily expenses were associated with PTSD symptoms, while satisfaction with housing was associated with fewer depressive symptoms *(96)*. In a review of perinatal refugee women, depression was attributed to social factors including economic hardship *(88)*.

2.1.4.2 Employment

Unemployment or underemployment (i.e. being employed below one's occupational level) contributed to anxiety and depression *(87,96)*. Difficulty in resuming occupations held in the country of origin could force newly arrived migrants to take jobs of lower status, causing downward social mobility and often resulting in mental health problems *(84)*. Among migrant workers, complex or demanding roles, a lack of autonomy or security, and poor working conditions were significantly associated with depression *(73)*.

Critically, however, studies generally did not consider the employment type; for example, those in unauthorized employment may be at a particularly high risk of mental disorders *(97)*.

Similar findings were evident among refugees. Among refugees and IDPs in the Syrian Arab Republic and surrounding countries, feelings of deprofessionalization were particularly reported by men and adolescents, and were associated with suicide attempts *(81)*. A global review of refugees and forcibly displaced populations found that a lack of employment rights and limited work prospects were associated with PTSD *(83)*. Employment was associated with a reduction in psychological distress among refugees and asylum seekers living in Germany *(96)*.

One review summarized the pathway from unemployment to mental health as follows *(75)*:

> Unemployment may result in financial problems and loss of self-esteem, loss of social networks and social participation, and may increase the risk of dangerous behaviors, such as smoking, drinking, and drug abuse.

2.1.5 Health-related factors

There was some evidence of an association between pre-existing physical health conditions and mental disorders among refugees and migrants *(55,73)*. Among perinatal migrant women, physical health problems and difficulties with infant feeding were associated with postnatal depression *(79)*. Among Iraqi refugees living in the Syrian Arab Republic, children with developmental or intellectual disabilities or chronic illnesses were particularly vulnerable to mental disorders, with the parents reporting poorer access to health services despite their children's greater medical needs *(81)*. Parents of children with pre-existing conditions may feel overwhelmed themselves: "Some children are exposed to maltreatment and neglect from parents who themselves are showing high levels of distress and are unable to cope with their own difficulties" *(81)*.

Among perinatal refugee and asylum-seeking women, those who had had a caesarean-section or instrumental delivery and those whose infants had feeding problems had a higher risk of mental disorders *(88)*. Unavailability of medication was associated with depression and PTSD in Syrian refugees *(55)*, while getting a correct medical diagnosis for their conditions improved mental well-being and was protective against mental disorders among resettled refugees *(61)*.

2.1.6 Neighbourhood-level factors

Several neighbourhood-level factors were identified as being closely associated with refugees' and migrants' mental health. Social support and social isolation were prominent themes, along with integration into the local community. Although these themes are discussed separately, it is important to note the overlap and interplay between them.

2.1.6.1 Social support

Higher levels of social support were associated with better mental health outcomes, consistent with findings in general populations. However, there may be exceptions to this general trend, for example among individuals who experience intolerance and oppression from family members and communities because of their sexual orientation, gender identity or religious beliefs. For these groups, social networks may not be supportive.

A global review found that mental health conditions affected 20% of migrant workers with poor social support compared with 11% of those with higher levels of support *(73)*. Low levels of social support and difficult interpersonal relationships were risk factors for mental disorders among migrants living in LMICs *(98)*. Among irregular migrants in the United States, the following factors ameliorated psychological distress *(93)*:

> building adequate social support and sense of community, resourcefulness, and creativity to find viable solutions to social challenges (i.e. learn English, develop job skills), having an optimistic view of the future, increased empathy for marginalized others, and reframing the undocumented experience in a more positive way.

Two reviews of children of internal migrants in China found that good relationships with peers were associated with better mental health outcomes *(94,95)*. Lower levels of social support were consistently associated with a greater risk of postnatal depression among perinatal refugee and migrant women *(28,58,74,89)*. According to one review *(89)*:

> Immigration is a major life event. [It] completely changes one's life, breaking away from the original living environment, missing support from family and friends, and adapting to a new culture. All of these are significant challenges for every immigrant let alone perinatal women.

In a global review of migrant women, a lack of social support along with poor partner support and marital adjustment problems was associated with postnatal depression *(79)*. Among Chinese women who had migrated internationally, access to social support during the first month after childbirth was associated with a lower risk of depression after giving birth *(89)*. A review of south Asian migrants living in high-income countries found that a supportive partner helped the women to cope with postnatal depression *(58)*. However, women with strained partner relationships felt that their partners contributed to their postnatal depression. These women felt that gender inequity within a family could aggravate their vulnerable emotional state *(58)*.

Similar trends were seen among refugees. Among Syrian refugees in Jordan, loss of social support was associated with depression *(62)*. Among refugee UASC, social support and contact with family members in the country of origin were protective against depression *(56,76)*. A sense of community and increased connections with school were associated with fewer internalizing difficulties among refugee children living in LMICs, although it was unclear whether the sense of community arose from within the refugee population or the local community *(68)*. A lower risk of PTSD symptoms was reported among refugee

UASC in supported living arrangements compared with those in less well-supported accommodation (99):

Social support, whether that be from peers or a parental figure, is a protective factor in the face of adversity and loss. Having foster carers or guardians in certain placements may give the young people opportunities to better confide and express feelings of despair and hopelessness.

Associations between social support and mental disorders are of particular importance as refugees and migrants often experience a loss of social networks and separation from family and friends on leaving their places of origin (88). Strong social networks also play a crucial role in coping with mental health conditions (75). Among women who had moved to the Republic of Korea for the purpose of marriage, social interactions with local residents were associated with lower levels of depression (100).

2.1.6.2 Social isolation and social exclusion

Social isolation and social exclusion are risk factors for mental health conditions among migrants and refugees. A review of perinatal migrant women from south Asia found that social isolation was associated with a ninefold increased risk of postnatal depression (58). Among irregular migrants in the United States, isolation and separation from family and friends in the country of origin were some of the most distressing aspects of being a migrant (93). Infrequent contact and interactions with relatives and friends were also associated with poorer mental health outcomes (75).

Social isolation was associated with depression and PTSD among refugees in rural Australia (60), asylum seekers in Europe (78) and IDPs in the Syrian Arab Republic (81). Loneliness, isolation and a lack of social connections increased mental distress among refugees resettled in rural Australia (60):

> [I]ndividuals identified as having probable PTSD and depression reported high-level loneliness (81.2% and 42.8%, respectively), while individuals of refugee background reporting a sense of isolation were 19.5 times more likely to have depressive symptoms. The impact of isolation and loneliness … provided further insight into how lack of social connections, differences in cultural practices and language barriers contributed to isolation, loneliness and ongoing mental health issues during resettlement.

Taking part in activities outside the home – "whether this was at work or school or simply spending time in the park with other mothers" – helped migrant women from south Asia to feel better after a period of postnatal depression *(58)*. Case study 2 describes a programme combining sports, play and movement activities that aims to provide socioemotional support for refugee children. Among migrant women living in the Republic of Korea, taking Korean language classes and accepting home-visiting services significantly reduced depression *(100)*. Engaging in cultural activities and connecting with others from the same cultural background – whether in person or through online platforms – promoted mental health among refugees globally *(61)*. Family connectedness was protective against depression among refugee children resettled in LMICs *(68)*. Resettling individuals from the same culture of origin together to establish a "critical mass" of people from the same background within a community may create a buffer against isolation and mental distress *(60)*.

Case study 2. TeamUp: supporting refugee children across the globe

TeamUp, a programme that combines sports, play and movement activities, aims to provide socioemotional support for refugee children aged 6–18 years *(161)*. Sessions are facilitated by trained volunteers, teachers or other school staff and cover eight psychosocial themes: anger, assertiveness, bullying, conflict, fear, friendship, respect, and stress and tension. Verbal communication is limited in sessions so that children from diverse backgrounds can participate, and facilitators create a safe and non-judgemental environment.

TeamUp started in the Kingdom of the Netherlands, where it supports children in over 25 asylum centres and 17 schools. It has also been implemented in Colombia, Greece, Italy, Sri Lanka, Sweden, occupied Palestinian territory, and Uganda.

In a recent process evaluation of TeamUp in the Kingdom of the Netherlands, children and facilitators perceived that the intervention improved children's psychosocial outcomes. Facilitator competencies, satisfaction and self-efficacy were rated as high. Challenges to implementation included low attendance and a need for improvement in the facilitators' adherence to the TeamUp manual.

2.1.6.3 Racism and discrimination

Experiences of racism and discrimination were consistently associated with poorer mental health outcomes among refugees and migrants *(60,67,98)*. Among irregular migrants living in the United States, neighbourhood racial problems were associated with a fivefold increase in depression scores (OR: 5.8; 95% CI: 1.6–21.4) *(93)*. In China, the mental health of rural-to-urban migrant children was affected by discrimination *(95)*.

Similarly for refugees, high levels of discrimination at country level were a risk factor for depression among refugee UASC (67), while discrimination was strongly associated with mental disorders among refugees and asylum seekers living in LMICs (97). Discrimination was an obstacle to psychological adaptation and contributed to depressive and anxiety symptoms among refugees living in Germany (96). Refugees living in rural Australia experienced racism and discrimination, which led to increased risks of depression and PTSD (60):

> This included both direct racism and discrimination, via overt looks and gestures, but also indirectly, through exclusion from job opportunities, or suffering from human rights violations and systematic racism within the health care setting, such as not being able to access an interpreter. Such direct and indirect experiences of racism were identified as not only causing distress but also increasing risk factors such as social isolation, due to individuals being afraid to leave their homes.

2.1.7 Environmental factors

2.1.7.1 Rurality and urbanicity

Refugees in rural Australia reported high levels of communication difficulties, language barriers, loneliness, social isolation and disconnection from families, although these issues may not be unique to those resettled in rural locations (60). Another review found that accommodating refugees and asylum seekers far away from urban centres resulted in higher levels of unemployment, which in turn was associated with poor mental health (75). Among migrants, internal migrants in China who migrated to inland areas had worse anxiety than those who migrated to coastal areas (82).

2.1.7.2 Potentially traumatic events

There was strong evidence for an association between refugee and migrant mental health conditions and the experience of potentially traumatic events such as conflict, personal injury, physical and sexual abuse, persecution and serious accidents and witnessing violence and death *(83)*. Exposure to these events increased the risk of anxiety, depression, PTSD, self-harm and suicide attempts *(55,62,67,69,70,76,78,79,93)*. The prevalence of postpartum depression was higher in migrant women with a history of exposure to abuse and violence *(63)*. Most of the evidence pertained to refugees. Among Iraqi refugees in the Syrian Arab Republic, the main predictors of PTSD were exposure to fighting and hostility and a history of experiencing traumatic events *(81)*. War-related violence and centrality of the event (the degree to which the experienced traumatic events confer meaning and identity) were significantly associated with PTSD among Syrian refugees in the Syrian Arab Republic *(55)*.

Exposure to more severe traumatic events and a higher number of potentially traumatic events increased the likelihood of mental disorder *(87,88,101)*. Among refugees and forcibly displaced populations, exposure to two, three or four potentially traumatic events was associated with a fivefold, 20-fold or 30-fold increase in PTSD risk, respectively *(83)*.

Certain groups (including women, children and torture survivors) were particularly vulnerable to the negative consequences of potentially traumatic events. Among resettled refugee children, previous exposure to violence was strongly associated with subsequent risk of psychological disturbance *(27,68)*. As described in a review of refugee children resettled in LMICs *(68)*:

> The degree of direct exposure to threat, cumulative number of adverse events, and duration of exposure all consistently increased the odds of mental health symptoms. Risks are increased not only by actual and threatened violence to an individual, but also by witnessing violence to others. The type of event matters: those that directly imperil or disrupt the integrity of the individual, family, or home are particularly consequential.

Among Iraqi refugee children in the Syrian Arab Republic, the main predictor of PTSD was the number of potentially traumatic experiences related to the conflict *(81)*. Among child and adolescent refugees and migrants, witnessing the torture of family members and exposure to the effects of war gave rise to mental health symptoms *(57,68)*. Within immigration detention centres, the most serious adverse effects of being detained were seen among asylum seekers whose mental health was already vulnerable due to experiences of torture and other potentially traumatic events *(78)*.

2.1.8 Country-level factors

One review identified an inverse relationship between the host country's gross national product and depression prevalence in labour migrants, but not among refugees *(84)*. Gross national product is correlated with the availability of paid employment and, therefore, may have a greater impact on the mental health of labour migrants than for refugees, who have relocated primarily in search of a place of safety *(84)*. Another review found a higher prevalence of PTSD among refugee and asylum-seeking populations living in the Middle East compared with those living in the Asian Pacific Region, Europe or North America *(83)*.

2.1.9 Migration-related factors and migration trajectory

2.1.9.1 Time since migration

Evidence on associations between mental health conditions and time since migration was contradictory *(68,76,88,102,103)*.

Two reviews found that a shorter period of residence in the destination country was associated with a higher risk of postnatal mental disorders among perinatal migrant women, suggesting that migration stressors may subside over time *(79,88)*. However, another review found that perinatal migrant women's risk of depression increased with increasing time in the resettlement country *(28)*. A review of refugees and migrants living in Canada found that those who had been living in Canada for over 10 years had higher rates of

anxiety and mood disorders compared with those who had lived there for less than 10 years *(72)*. Among migrant workers, a longer duration of residence was associated with a higher likelihood of depression *(73)*.

Similar findings were reported for refugees. Two reviews of refugees and asylum seekers found higher levels of anxiety and depression with increasing time in the destination country *(87,92)*. Among refugees and IDPs in the Syrian Arab Republic and neighbouring countries, psychological stress intensified as the period of displacement increased *(81)*.

Among refugee children living in LMICs, the prevalence of depression (but not of PTSD) increased with increasing time since displacement, particularly when social support was lacking *(68)*. Among refugee children in high-income countries, the duration of residence in the destination country was negatively associated with depression, with a trend towards a reduction in symptoms over time *(27)*. Three further reviews confirmed this trend, reporting that longer residence in the destination country was associated with lower levels of depression and other mental health conditions among refugee children *(67,69,86)*.

2.1.9.2 Refugee or migrant status

The few reviews that compared the risk of mental health conditions by refugee or migrant status reported higher risks among refugees and asylum seekers compared with migrants *(57,80)*. A review of refugees resettled in high-income countries reported an approximately twofold higher risk of psychosis among refugees compared with migrants (hazard ratio: 1.66; 95% CI: 1.32–2.09) *(80)*. A global review of perinatal refugee and migrant women found the highest PTSD rate among asylum seekers (48.2% scoring above the cut-off), followed by refugees (33.8%) and then migrants (15.0%) *(88)*, a trend confirmed in another review *(28)*. A review of refugee and migrant women living in Europe found a greater number of self-harm episodes and higher stress levels in asylum seekers compared with migrants *(78)*.

2.1.9.3 Insecure legal status

There was consistent evidence that an insecure legal status is associated with poorer mental health. Three reviews identified denial of international protection as the biggest risk factor for mental disorders among asylum seekers *(64,76,78)*.

For refugees and asylum seekers in Germany, those with a pending or rejected asylum application had a 1.76-fold higher risk of depressive symptoms than those whose application had been approved *(96)*. Feelings of being "stuck in limbo" while awaiting an asylum or resettlement decision was linked with anxiety and depression in individuals who identified as LGBTQI+ *(59)*. Gaining temporary rather than permanent protection also contributed to the risk of depression and PTSD *(101)*. Feelings of fear and uncertainty associated with the immigration process and the possibility of deportation were identified by refugees as potential causes of mental disorders *(64)*:

> The feelings of fear and uncertainty associated with the immigration process and the potential for deportation were identified by respondents as a potential cause of mental illness. Supporting these findings is a growing body of research suggesting that an uncertain immigration status contributes significantly to worse mental health outcomes and poorer psychosocial adjustment in the resettlement country.

One review highlighted the importance of support and encouragement from legal support service staff in helping to overcome anxiety and worry among refugee children awaiting an asylum decision *(86)*. Most of the evidence on insecure legal status centred on the experiences of refugees and asylum seekers. However, one review of irregular migrants in the United States found a fourfold increase in depression scores for those without documentation of legal status compared with those who had entered the United States with documentation *(93)*.

2.1.9.4 Detention

Detention within immigration or other asylum-processing centres was a significant risk factor for mental health conditions. Detention-related risk

factors included slow bureaucracy and consequent prolonged detention, as well as language difficulties, separation from family, inadequate medical treatment, being interviewed by migration officers, being woken during the night for head counts, assaults by migration officers, solitary confinement, exposure to violence and brutality, and witnessing suicide attempts *(105)*. Longer periods of detention were associated with increased rates of depression and PTSD *(78,105)*. Among adult refugees and asylum seekers who had previously experienced detention, symptoms of PTSD were common *(105)*:

> Detainees all reported that they were bothered a lot or extremely by "sudden and upsetting memories" from detention, "images of threatening or humiliating events in detention", "sudden attacks of anger over small things" and that thinking about detention makes them feel extremely sad and hopeless. Other symptoms include becoming "nervy, sweaty, shaky and/or have rapid heartbeats" when thinking of detention (93%) and having "nightmares about things that happened in detention".

Children were particularly vulnerable to the effects of detention. High rates of mental health conditions among refugee children were associated with being placed in detention *(67,69)*, and mental disorders were 10 times more likely following detention than prior to detention *(101)*. Prolonged stay in an asylum centre was associated with a 30-fold increase in the risk of psychopathology among children aged 11–16 years (OR: 30.0; 95% CI: 3.8–237.0) *(102)*. These associations were most pronounced in UASC and in children who had experienced multiple relocations within the asylum system *(67,69)*. Girls and women were especially vulnerable to the adverse effects of restrictive reception settings and detention *(27,101)*. Refugees and migrants who identify as LGBTQI+ reported severe mental health conditions, especially when transgender women were held in male facilities *(59)*. Detainees who are torture survivors were a further vulnerable group at risk of severe, complex PTSD and suicide attempts *(101,105)*. The prevalence of anxiety, depression and PTSD

was significantly higher among torture survivors who had been detained than in non-detained refugees and migrants from similar backgrounds *(101)*.

Mental health conditions associated with detention persisted beyond the detention period. Symptoms of mental disorders remained higher in former detainees compared with their non-detained counterparts up to 4 years following their release *(101)*.

2.1.9.5 UASC

UASC living in Europe were at greater risk of experiencing mental health conditions compared with children who were accompanied by family members. Refugee UASC in Sweden had high levels of anxiety, emotional and behavioural problems, PTSD, self-harm and suicide attempts, with unaccompanied adolescent refugees particularly vulnerable to self-harming behaviours *(78)*. In a global review of refugee children, being unaccompanied was a risk factor for depression *(67)*. A review of refugee children living in high-income countries reported that UASC experience a higher number of adverse and potentially traumatic events *(27)*. In children, being separated from their immediate family was associated with PTSD, and symptoms of mental disorders were fivefold lower in refugee boys who were living with both parents than in those with other living arrangements *(27)*.

2.1.9.6 Migration trajectory

Most reviews focused on the post-migration context and only a few explored the pre-migration phase, transit and onward or return migration. Among irregular migrants in the United States, pre-migration stressors including exposure to war and conflict and a perceived sense of failure related to an inability to succeed in the country of origin *(93)*. The most distressing events experienced by LGBTQI+ refugees and migrants occurred prior to migration or during transit *(59)*.

Exposure to adverse events during transit was a determinant of anxiety and PTSD *(27)*. Transit-phase risk factors included the journey itself, duration of transit, loss of a familiar environment and uncertainty regarding the outcome of the journey *(57)*. Among irregular migrants in the United States, a dangerous

border crossing was reported to be one of the most significant stressors during the transit phase *(93)*.

A higher number of relocations after migration was associated with a threefold higher risk of poorer mental health among asylum-seeking children (OR: 3.0; 95% CI: 1.4–6.7) *(102)*. One review found that the prevalence of anxiety, depression and PTSD was higher in adult refugees than in non-refugee populations but also higher than in populations currently living in conflict or war settings *(103)*. This suggests that not only does exposure to conflict and war make refugees vulnerable to mental health conditions but also that the flight and/or additional post-migration factors may further aggravate symptoms *(103)*. No review specifically addressed the issue of return migration.

Several reviews highlighted the importance of considering the migration journey as a whole. Among refugee children resettled in high-income countries, the cumulative exposure to potentially traumatic events was more important than pre-displacement events in determining current mental health *(27)*. Similarly, a review of adult refugees who had been displaced within the Syrian Arab Republic and to surrounding countries found that their mental health conditions were attributable to both past and current challenges *(81)*.

2.2 Facilitators and barriers to mental health services among refugees and migrants

2.2.1 Summary of included studies

A total of 36 reviews on facilitators and barriers were included in the umbrella review *(55–66,115–138)*, of which 33 highlighted barriers and 25 highlighted facilitators to accessing mental health services. Most reviews were published in English *(32)*; other languages were German (three reviews) and Portuguese (one review), with one review published in multiple languages (Dutch, English, French, Italian and Spanish). Twenty-two were mixed-methods reviews, 12 were qualitative reviews and two were quantitative reviews. The reviews included between seven and 252 studies. Reviews focused on refugees (30 reviews),

asylum seekers (16 reviews), migrants (16 reviews) and IDPs (five reviews). Only two reviews included the views of health care professionals. Reviews focused on adult populations (30 reviews), children and/or adolescents (29 reviews), older adults (seven reviews) and perinatal women (four reviews). Reviews assessed post-migration (28 reviews), integration and settlement (25 reviews), travel and transit (six reviews) and pre-migration (one review). Most reviews focused on international migration (21 reviews). Mental health conditions included PTSD and other stress-related disorders (16 reviews), depression (15 reviews), anxiety (13 reviews), behavioural disorders (five reviews), psychosis (four reviews), suicide and self-harm (three reviews), substance use disorders (three reviews) and dementia (one review). Ten reviews focused on accessing care in the community and primary care levels, and eight on access to specialist mental health services. It was not always possible to discern from the reviews whether health care professionals were mental health specialists (such as psychiatrists, psychologists or psychiatric nurses) or non-specialists (such as general doctors or community health workers trained in delivering psychosocial interventions).

2.2.2 Availability

Fifteen reviews assessed the availability of mental health services for refugees and migrants *(55,57,60,62,63,65,115–123)*. Four reviews discussed the lack of mental health services specifically adapted to the needs of refugees and asylum seekers *(55,60,124,125)*. In a review of Syrian refugees residing in Iraq, Jordan, Lebanon and Türkiye, of those who felt they needed psychological treatments and support only 15% were able to access it owing to a lack of services *(55)*. For refugees living in rural Australia, the availability of mental health services was limited despite the large size of the refugee population requiring services *(60)*. Unfamiliarity with the health systems compounded accessibility for refugees and asylum seekers who had experienced traumatic events *(125)*. Several reviews discussed the lack of specialist mental health services for specific groups *(57,62,116–118)*, such as refugee UASC with PTSD who require tailored trauma-focused treatment *(116)* and refugees who were survivors of torture or sexual violence who require survivor-centred services *(57,118,126)*.

Case study 3 discusses the integration of mental health into primary care in refugee settings in Bangladesh.

Case study 3. Integrating mental health into primary care in refugee settings in Bangladesh

Rohingya refugees have fled from Myanmar to Bangladesh in large numbers owing to persecution and armed conflict. In 2017 the UNHCR developed a programme to integrate mental health into UNHCR-supported primary care facilities within the Kutupalong and Nayapara refugee camps *(162)*, guided by the mhGAP *(39)*.

After assessing the capacity of primary health centres to deal with mental health conditions and consulting key stakeholders, two to three primary care workers from each primary care facility were selected for mhGAP training. The trained staff provided mental health and psychosocial services in the primary care centres and had bi-weekly supervision visits. In the 7 months following the start of the integration programme, consultations for mental health conditions increased from fewer than 40 per month to 160 per month, and more patients were identified as having a mental disorder and offered support.

This programme showed that mental health care can be integrated into primary care in the context of an acute humanitarian emergency, although a number of challenges were identified: limited human resources resulted in difficulties in providing mental health supervision, high staff turnover owing to short-term contracts and harsh working circumstances created difficulties in building effective working relationships, and logistical challenges meant that medication shortages and transportation difficulties were common. The following recommendations were made to integrate mental health care into primary care:

- capacity-building should be seen as a process rather than a one-off event;

Case study 3. contd

- ongoing clinical supervision is essential and requires significant resources;
- advocacy and liaison with local stakeholders within the health care system are key;
- attention must be paid to the local context, including a careful assessment of the local health system's strengths and readiness; and
- referral systems are needed for patients with more intensive care needs.

2.2.2.1 Concerns of mental health service providers

Professionals providing mental health services for refugees and migrants voiced their concerns regarding the practicalities of delivering care. Some felt unprepared to assess and treat refugees and migrants, whose needs were often seen as complex *(116,117,119,125,127)*: "It was a big shock. I felt like I almost couldn't use anything of what I had learned during my education and that was very strange" *(119)*.

Some mental health service providers described significant emotional strain and mental exhaustion, which contributed to burnout and difficulties in retaining trained mental health staff *(119,120)*. Training psychosocial service providers to recognize the specific needs of refugees and migrants and ensuring cultural competency were raised as important issues *(60,63,126,128,129)*. Benefits of such training included increasing the availability of acceptable treatment options *(128)* and reducing the drop-out rate from psychological services *(129)*. Training for non-specialist staff working within primary care centres was considered essential for supporting Syrian refugees with psychosocial disability *(63)*. This approach of training primary care providers is the foundation for much MHPSS work with refugees and migrants and forms part of WHO and UNHCR policy, as evidenced by other studies beyond the scope of this review *(49,163,164)*.

2.2.3 Accessibility

Poor accessibility as a barrier to mental health services was discussed in 28 reviews *(55–59,63–66,115–122,124–128,130–135)*.

2.2.3.1 Language

Language barriers were a key factor affecting the accessibility of mental health care for refugees and migrants *(56–58,66,117–119,121,124–126,128,130–133,135)*. The main issues identified were the use of medical jargon, which is difficult for refugees and migrants to understand and difficult for interpreters to translate *(130)*; a lack of appropriately translated materials, which makes navigating services difficult *(117,130,133)*; and a general lack of proficiency in the host country language *(58,121,125,128,165)*. Even among those able to speak the local language, some found it difficult to express mental health concepts in a new language *(121,133)*. Language barriers were often compounded by poor communication skills among mental health service providers *(128)* and a fear among refugees and migrants of being misunderstood and misdiagnosed *(57,118)*. These factors made the accurate diagnosis of mental health conditions challenging and impacted treatment options *(120)*. In a review of refugees and asylum seekers, one individual said, "I asked for painkillers but he [the doctor][2] gave me pills instead for depression. I don't think he understand my problem or what I tell him. No interpreter to help me. He gave me the pills for the wrong thing, but at least they help me relax and sleep" *(135)*.

Eleven reviews discussed the availability of interpreters within mental health services *(55–57,119–121,128,132–135)*. A lack of trained, experienced interpreters was a particular barrier for refugee UASC *(56,134)* and for newly arrived migrants and migrant families with young children with developmental disabilities *(121)*. One mental health service provider for migrant children and their families reported *(121)*:

Most of our interpreters they … don't have enough experience. So, when people become proficient, they leave for another job and leave this to a beginner. And the beginners they cannot make the things effective. So sometimes they mislead the people more often than are helpful.

[2] *Brackets are in the original text.*

Even when interpreters were available, fears about lack of confidentiality, poor translation skills *(132)*, lack of mental health training *(119)* and limited interpreters of the same gender as the client (55) often resulted in a low acceptability of the service. Some health care professionals reported that service users did not always feel comfortable or satisfied using interpreters *(118,132)*. Some data suggested that qualified interpreters trained in specific medical terminology could encourage engagement with mental health services *(128)* and reduce disparities in mental health services use among refugees *(57)*.

2.2.3.2 Flexible services

Difficulties in accessing mental health services due to a lack of time and the inflexibility of services were discussed in several reviews *(63,65,116,118,121, 122,124,133)*. Although these issues also apply to general populations, several reviews highlighted them as specific barriers for refugees and migrants *(118,121,122,133)*. One review reported that in six European capitals, only 30% of services for refugees and asylum seekers were open outside normal office hours and only 13% were open on weekends *(122)*. Refugees' and migrants' strict work schedules hindered attendance, with employers often not allowing time off work to attend medical appointments *(65,121)*. Among refugees living in Malaysia, "One challenge raised by all counsellors relates to scheduling difficulty given that the majority of the Rohingya refugees in Malaysia have full time employment and are only available during evening hours" *(65)*.

Complicated booking systems *(116)*, difficulty in locating services *(133)*, lack of child care *(118,122)* and the prioritization of household duties created additional barriers *(65,133)*. Long waiting lists were a barrier for refugees living in the United States *(124)*. For young refugees and migrants with mental health and neurodevelopment disabilities, long waiting times and inflexible appointment schedules were key reasons for disengagement with mental health services *(121)*.

Refugees' and migrants' access to mental health services was facilitated when services provided flexible appointment schedules and did not issue penalties for missed appointments *(65,116,123,133)*. Longer appointment times were advantageous to account for the possibility that they might arrive late and to provide any additional time required to explore cultural concepts of mental health conditions, and the use of interpreters helped with communications *(119,123)*.

Another facilitator to accessing community-based mental health services was task-sharing, in which individuals without clinical qualifications but with experience of working in community health are trained to deliver psychological interventions *(63,127)*. A review of Syrian refugees suggested that task-shifting could improve access to care, with trained community workers acting as culture brokers to encourage refugees to access mental health services *(63)*. This finding is likely to be applicable across diverse refugee and migrant settings.

2.2.3.3 Competing needs

Even when mental health services were available, refugees and migrants often felt that they could not prioritize their mental health until other needs had been met *(63,132,134,135)*. Among refugee UASC, these needs included education and material possessions *(132)*, whereas among Syrian refugees, the most pressing needs were to overcome poverty, violence and social isolation *(63)*. One review suggested a "safe phase", during which the most immediate needs should be addressed and only after this individuals may wish to discuss their experiences of potentially traumatic events *(134)*. According to one study, "An asylum seeker or a refugee … has many things to do. One cannot master everything at the same time" *(135)*.

For refugees who had experienced multiple relocations, particular challenges were continuity of care, registering for health services and securing referral to specialist services *(116,125)*. One review highlighted that Syrian refugees preferred rapid interventions rather than prolonged psychological treatments because of the unpredictable and mobile nature of their lives *(63)*.

2.2.4 Acceptability

Twenty reviews explored acceptability as a barrier or facilitator to accessing mental health services among refugees and migrants *(55,63,65,115,116,119–122,124–130,132,134–136)*.

2.2.4.1 Cultural factors

Cultural factors were key to the acceptability of mental health services *(63,65,115,116,119,121,122,125–128,130,135)*. Limited cultural competency of the health care provider and a lack of cultural responsiveness within the design of the mental health service resulted in poor acceptability *(63,65,115,116,119,121,122,125–128,130,135)*. For Palestinian refugees residing in Jordan, cultural factors were an important barrier *(115)*. In a review of migrant parents caring for a child with a disability, parents felt that "they did not receive the level of care and sensitivity that would have been expected within their culture" *(130)*.

Three reviews reported that dissonance between parents' cultural beliefs and those held within the host country reduced the likelihood that they would use local mental health services *(115,125,130)*. A lack of culturally acceptable services resulted in significant mistrust and fear of the service in refugees and migrants *(120–122,134)*. One review highlighted the importance of cultural competency among health professionals: "I felt like I was judged by my doctor …. I wanted to do things according to my tradition but I was expected to do things differently" *(135)*.

2.2.4.2 Psychological services

Refugees and migrants often felt that the treatment options offered to them were culturally inappropriate *(63,65,115,116,125,127,130)*. Talking therapies were sometimes not accepted as a treatment by refugees and asylum seekers due to perceptions that they could not benefit from talking to strangers about their problems *(116,120,132,134,135)*, a lack of trust in health care providers, feeling intimidated *(120,121,132,134)*, not wanting to discuss potentially traumatic events *(120)* and being unaccustomed to verbalizing emotions *(135)*. UASC and refugees who had been victims of torture found talking therapies particularly difficult: the groups drew parallels between talking therapies and being interrogated or questioned by the police, resulting in further emotional distress *(132,134)*. Some expressed discomfort during the therapy sessions: "Sessions can become unpleasant, [for example] having headaches because of talking too much" *(132)*.

Problem-solving and advocacy-focused treatments were highlighted as a more acceptable intervention framework for refugees and asylum seekers *(63,65,120,132,134)*. For example, refugee UASC preferred activity-based interventions, which improved engagement with mental health services compared with direct talking therapies *(132,134)*.

> A group of refugee children went for 3 days hiking to a fishing lodge in the mountains together with professionals from a center that supports children who are coping with grief. This shared journey provided the children with an opportunity – which they grasped – to talk about personal losses *(134)*.

The use of drawings as a non-verbal method for refugee children who had experienced traumatic events was beneficial in helping them to express difficult life stories *(134)*. Peer support groups were accepted as a form of treatment for refugee families with children with behavioural difficulties *(116)*.

Methods to improve the cultural competence of mental health services were discussed *(63,116,119,126–128)*. Culturally relevant therapies such as art and theatre workshops were acceptable to refugees from the Syrian Arab Republic *(63)*. Among south-east Asian refugees, cognitive behavioural therapy was perceived as an acceptable service because of parallels between some of its mindfulness elements and Buddhist practice *(127)*. Narrative therapeutic approaches were identified as potentially more acceptable in cultures with a stronger oral tradition of history telling *(127)*.

Intercultural mediation services improved the acceptability of mental health services for refugees and migrants in Europe *(119,128)* and for refugees in the Syrian Arab Republic *(63)*. Acceptability of the service and treatment adherence were higher if individuals were matched with case managers who shared the same linguistic and ethnic backgrounds *(128)*. This finding was echoed among young migrants with neurodevelopmental disabilities, who expressed a preference for same-culture service providers to improve the cultural responsiveness of the service *(121)*. However, a review assessing mental health service delivery in LMICs concluded that despite rigorous cultural adaptations of the interventions, service users still did not accept treatment because it lacked concepts of mental health that were considered important in their country of origin *(65)*.

2.2.4.3 Medication

Refugees raised concerns about the use of prescribed medication to treat anger and sadness, which they deemed as within the normal range of emotions *(132)*. Other factors reducing the acceptability of medications were a lack of information about side-effects, misconceptions about addiction to medications and the risk of medicines being ineffective: "Sometimes I see these pills …. I mean I don't think that these pills are good. They make me numb. Sometimes I decide to give up. I decide to skip taking them to see what would happen" *(135)*.

Despite these concerns, a meta-analysis found no difference in rates of adherence to medication between migrants and non-migrants *(128)*. *I*ndividuals with a preference for traditional medicines may be less likely to take prescribed medication and, therefore, less likely to find mental health services in the host country acceptable *(128,132)*. Service providers should be aware that certain herbal medicines may affect the efficacy of medication and alter therapeutic benefits. One review suggested that these interactions could lead to incorrect doses being prescribed, resulting in a poorer treatment benefit, worsening engagement with mental health services and reduced adherence to medication *(128)*.

2.2.4.4 Cultural concepts of mental health

Refugees and migrants may use different explanatory models to conceptualize mental health conditions than the host population. Several reviews highlighted a perception among some refugees and migrants that mental health conditions cannot be treated *(64,122,132)* or do not constitute an illness *(118,121)*. Somatization of symptoms (that is, the manifestation of psychological or emotional disturbances as physical symptoms) was a challenge in diagnosing mental health conditions among refugees and migrants *(57,63,116,119,121, 122,131,135)*. It was common for mental health conditions to present somatically among certain groups, particularly victims of torture *(57,63)*. Often, physical symptoms were not recognized as having an underlying mental health cause because health care professionals had little experience in culturally diverse manifestations of mental health conditions *(63,116,119,122,131)*.

Differing conceptualizations of mental health also impacted the perceived acceptability of services *(63,116,118,119,121–124,128,135)*. Older Iranian migrants living in the United States ascribed mental health conditions to

an imbalance of spirits and consequently did not consider the prescribed medication compatible with their more holistic model of mental health *(124)*. Similar findings were reported among Chinese migrants who viewed health as "a holistic state of equilibrium involving both the body and the mind" *(133)*; accordingly, they deemed the separation of physical and mental health services across different hospital and community sites unacceptable.

2.2.4.5 Gender and sex

Gender-sensitive approaches to care, such as the provision of same-sex therapists and interpreters, was important *(55,118,119,126,127)*. Patient-centred approaches were important for meeting refugees' and migrants' individual preferences *(118)*. Using therapists of the same sex as the client was particularly important for refugees and migrants who had experienced sexual assault or intimate partner violence *(118)* and those who identify as LGBTQI+ *(59)*. One review highlighted particular challenges when a female mental health professional worked with a male service user, although this was not generalizable across refugees and migrants *(119)*. In Türkiye, health professionals found it challenging to work around the cultural norms of some refugee and migrant groups in whom detailed medical questioning was seen as offensive, resulting in possible underdiagnosis: "This [patriarchal culture] causes some undisclosed illnesses, like stress and mental disorders, and cases like sexual violence to remain undiagnosed by health providers" *(123)*. One review also highlighted the importance of gender-specific services for men who struggled to engage with services *(63)*.

2.2.5 Affordability

Eight reviews discussed factors relating to the affordability of mental health services *(115,119,121,122,124,128,130,135)*.

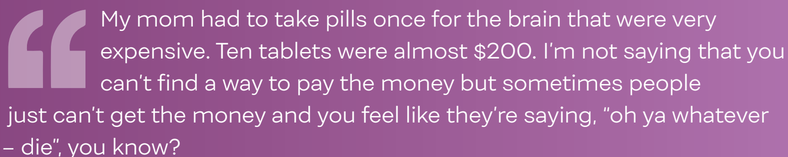
2.2.5.1 Cost of disability

Costs associated with mental health conditions included job or income loss, medical costs and expensive health insurance *(121,130)*. Cost was a particular issue for migrant women from Mexico and Asian countries who had children with neurodevelopmental disabilities and were living in the United States *(121)*. Loss of income caused by attending appointments was an issue *(65,121)*:

"Refugee families are working really hard you know, and income is absolutely essential for them ... and if we're going to be calling them away from their work schedule, that's a loss of income for them in order to attend these appointments" *(121)*.

2.2.5.2 Health insurance

Although many countries provide health care free of charge, others require health care insurance and refugees and migrants may face challenges in obtaining this *(119,121,124,130,133)*. Migrants living in the United States were three times more likely to be uninsured compared with individuals born in the United States *(124)*. For those without documentation of their legal status, there were high costs associated with care and medication *(122,130,135)*. Out-of-pocket payments for medication were a challenge for those already in difficult socioeconomic situations *(135)*:



Although this evidence relates to countries where health insurance is required, even in countries where access to health care is purportedly free at the point of use, challenges and barriers to access may still exist *(166)*.

2.2.5.3 Perceived costs

Refugees and migrants were often unaware of the availability of free-of-charge mental health services *(115,119)*. In such cases, the perceived cost of health services acted as a barrier *(118,121,135)*. One review highlighted that not all refugees were aware that Palestinian refugees in Jordan are entitled to free access to health care *(115)*. In some cases, if health care professionals were aware of the socioeconomic background of the person they were treating, they waived administrative charges and issued prescriptions and appointments free of charge *(119)*.

2.2.6 Awareness

Eighteen reviews assessed refugees' and migrants' awareness of mental health services and how this affected their access to services *(57,58,62,64,66,116–119,121,122,124–126,128,130,133,135)*.

2.2.6.1 Available services

Potential service users were often unaware of the mental health services available *(62,64,66,117,124,126,130,133)*. Among migrants from diverse countries residing in the United States, less than 25% were aware of which mental health resources they could access *(124)*. A review of refugees and asylum seekers in Europe included a Swiss study in which 66% of mental health service providers felt that lack of awareness of their service was the main barrier to access for refugees *(122)*. Even when mental health services were free of charge, refugees and migrants were often not aware of their eligibility to access them *(115,119)*.

2.2.6.2 Navigation of the health system

Difficulty in understanding and navigating the health care system in the host country were key barriers for many refugees and migrants *(57,64,117,121,135)*: "Even if they were kind of aware of [services],[3] they wouldn't know where to start" *(121)*. Key challenges were distinguishing between primary and specialist care *(57,117,135)*, navigating multiagency approaches *(116,119)*, unfamiliarity with the scope of local services (e.g. general practitioners and health visitors in certain countries provide care for both mental and physical health) *(58)*, and lack of clarity about the role of voluntary services *(119)*. The complexity of referral processes represented a further barrier to accessing services *(135)*: "When I first came here and didn't have anybody, I had no clue what the Primary Care Trust is or Mental Health Trust, or Hospital Trust. Back home it's all in one".

The differing structures of health systems and multiple possible entry points reduced refugees' and migrants' ability to initiate and adhere to treatment *(128)*. In some settings, health professionals themselves also lacked clarity about the eligibility of refugees and migrants for mental health services *(119)*.

[3] *Brackets are in the original text.*

2.2.7 Attitudes and stigma

Twenty-five reviews summarized evidence on attitudes and associated stigma towards mental health conditions as barriers or facilitators to accessing mental health services *(57,58,62–66,115–126,128,130–133,135)*.

2.2.7.1 Community attitudes

A commonly identified barrier to accessing mental health services was stigmatizing attitudes from families, friends and the wider community towards mental health conditions *(62,63,65,115,117,118,121,122,124–126,130,132,135)*. There was fear of becoming the subject of local gossip *(130)*; information being leaked back to their place of origin *(130)*; being labelled as shameful *(63,117,121,130)*, crazy, mental or mad *(65,118,132,135)*; or damage to marriage prospects or the family reputation *(118,121)*. Stigmatizing attitudes were a barrier to accessing mental health and psychosocial services for two thirds (66.4%) of asylum seekers in Europe *(122)*. High levels of fear around stigma were reported among refugees who had been victims of torture *(63)* and migrants from African countries of origin residing in the United States *(124)*, and were associated with substance use *(117)*, neurodevelopmental disability *(121)*, attention deficit hyperactivity disorder *(130)* and conflict-related and gender-based violence *(62)*.

As in general populations, stigmatizing attitudes were sometimes also held by refugees and migrants themselves *(121,124,132,135)*. Some groups blamed the individual for their mental health condition *(121)* and considered mental health conditions a sign of weakness *(121,126)*. Older Korean migrants living in the United States held particularly stigmatizing attitudes towards mental health conditions *(124)*. A review of Syrian refugees found that shame and guilt prevented victims of torture from seeking mental health support *(63)*. Migrants from LMICs found that community education and support and the use of cultural formulation interviews to explore refugees' and migrants' understanding of mental health conditions reduced stigmatizing attitudes *(128)*. A review of migrant children and young people with mental health conditions addressed stigmatizing attitudes by minimizing gossip and community rejection and ensuring that those seeking help were directed to trusted information sources *(121)*.

2.2.7.2 Attitudes of health care professionals

Six reviews discussed the negative attitudes of mental health service providers and the resulting impact on access to services *(58,63,118,119,130,132)*. Negative attitudes were manifested as discrimination *(130,135)*, lack of interest in the service user *(132)*, rushing the appointment *(58)* and distrust in the service user *(119,135)*. One review reported that some health care professionals in Sweden and the United Kingdom felt that refugees and migrants had a "sense of entitlement to welfare" and strained the public health resources *(119)*. However, this was by no means the predominant view: much more commonly, health care providers were empathetic and supportive and valued their role in providing care to refugees and migrants: "We are doctors and we do not care whether the patient is illegal or not" *(119)*.

Three reviews discussed the difficulties of diagnosing mental health conditions in refugees and migrants from diverse cultural, linguistic and religious backgrounds *(63,123,128)*. Overlabelling was highlighted as problematic, especially for groups such as IDPs who experience high levels of ongoing, daily insecurity *(63)*. The recognition, diagnosis and treatment of psychosocial disability were associated with stigma and shame from family, the community and health professionals *(62,63,65,66,115–118,121,122,124,128,130,132,135)*. For example, one review gave the example of a group of Syrian refugees who felt comfortable expressing strong emotions *(63)*. Labelling these emotions and expressions of distress as a mental health condition was deemed not only inaccurate but also unacceptable and was associated with shame and embarrassment. Case study 4 describes perceived stigma and discrimination among Somali refugees in Kenya.

Case study 4. Perceived stigma and discrimination among Somali refugees in Kenya

Somali refugees living in Eastleigh, Nairobi, participated in a qualitative study of barriers affecting their access to and utilization of mental health services *(167)*. A total of 82 participants were recruited, including adult and adolescent refugees, primary health care workers, religious leaders and psychiatrists. Two levels of perceived stigma were described.

First, respondents reported experiencing stigma and xenophobic attitudes held by locals. Somali refugees were perceived by locals as outsiders, which created mistrust between the local population and refugees and impeded the latter's integration into the local community. Many Somali felt uncomfortable to seek mental health services in the same health facilities as locals: one participant said, "Even if I have a mental condition, I do not know whether I can trust the doctor because the people at the community in Eastleigh have shown me a lot of stigma and discrimination in various service deliveries including health care".

Secondly, Somali refugees themselves had stigma and discriminatory attitudes towards mental health conditions. Receiving treatment for a mental disorder was often regarded as shameful and individuals needing treatment were considered weak. These attitudes, coupled with a general mistrust of locals, negatively affected the willingness of Somali refugees to disclose symptoms of mental health conditions to health care providers for fear that the information would be shared with others in their community.

Health providers should acknowledge the significant negative impact of stigma. A confidential, private and reassuring environment for assessing mental health and providing mental health services is essential to encourage help-seeking and open discussions. Finally, integrating indigenous methods of treatment and healing into biomedical methods can enable a wide spectrum of culturally acceptable support to be offered to refugees.

2.2.8 Help-seeking

Sixteen reviews identified barriers to help-seeking among refugees and migrants *(63,115,116,118,120–125,127,128,130,132,133,135)*.

2.2.8.1 Informal support

Refugees and migrants commonly sought emotional support from their own communities rather than professional support *(116,130,132)*. Informal support was sought from schools *(116)*, family members *(116,123–125,132)*, peers *(132)*, religious or spiritual leaders *(116,121,123,132)*, social workers *(132)* and friends *(123,124)*. One study quantified this: "The most common source of help seeking was family (23.1%) followed by a GP [general practitioner] (21.5%) and then psychiatrists and psychologists at 13.8 and 12.3% respectively" *(125)*.

For some, seeking support from the community had the additional benefit of reducing social isolation, which in turn facilitated later presentation to the mental health services *(63,124,130)*. For example, Chinese migrants in the United States whose families encouraged them to seek help were less likely to attempt suicide than those without such encouragement *(124)*. Some groups, such as migrants from Latin America and Viet Nam residing in the United States, had a favourable attitude towards seeking mental health services *(124)*. A review of migrant children and young people found that those with a previous negative experience of using a mental health service would be less likely to seek help in the future *(121)*.

2.2.8.2 Consequences of help-seeking

Fear of the consequences of help-seeking included concerns over a lack of confidentiality and its negative consequences *(65,121,124,132)*. A significant barrier for refugees and asylum seekers was fear of information disclosure to the authorities *(121,124,132,135)* or the involvement of social services and separation from their children *(121,135)*. Young refugees also voiced fears that disclosure of their mental health condition could result in judgement from colleagues and job loss *(116)*. Parents of children with behavioural disorders feared social judgement and preferred to keep their children at home *(130)*. These fears often resulted in people choosing personal safety over their mental health *(135)*: "If I need to get health care I risk being reported by the doctor and

deported back to Venezuela. My safety has to take precedent over my health. When you are an illegal, those two things are mutually exclusive entities".

Irregular migrants and those with insecure asylum status feared being asked for legal paperwork *(119,124,127)*. Delayed help-seeking among irregular migrants resulted in them presenting at a crisis point and requiring urgent care *(124,135)*. A review of refugees and asylum seekers in LMICs found that providing reassurance about confidentiality of the service facilitated help-seeking by increasing trust in mental health services *(65)*.

2.2.9 Accommodation

Thirteen reviews identified factors related to the accommodation of mental health services *(59,63,65,116,118,121,122,125,126,130,132,134,135)*.

2.2.9.1 Location of services

Unfamiliar or overly clinical environments were a barrier to accessing mental health services for young refugees and migrants *(121,132)*: "Young people report that they would have preferred therapeutic work to be done in a more comfortable, familiar and non-intimidating place than the formal, institutionalized, impersonal environment of a clinic" *(132)*. A review of refugees in the Syrian Arab Republic suggested that locating services in community centres or women's groups could increase access and reduce stigma *(63)*. Another facilitator was safe spaces that promote social inclusion and allow women and girls to discuss sensitive issues such as interpersonal violence *(63)*. Many of these issues are not specific to refugee and migrant populations.

2.2.9.2 Privacy

The spaces in which mental health services are located and their implications for privacy and confidentiality are important *(59,63,65,121,126)*. In a Rohingya refugee camp, the lack of space and of provision for confidential services posed a challenge *(126)*. Other challenges in conflict zones included frequent disruptions to services, unsuitable buildings (e.g. with tin roofs) and lack of privacy *(65,126)*. A review of migrant children and young people with mental and neurodevelopmental disorders found that the location of mental health

services can impact confidentiality and provoke stigmatizing attitudes: "A client had to go to [a service][4] and when she walked out of the building, other people were actually waiting at a bus stop which was right in front and they said to her: 'Why do you go in that place? That's for crazy people'" *(121)*.

Evidence was mixed about privacy in community- and school-based mental health services. Although locating services in these settings made them more socially acceptable *(121)*, there were concerns about confidentiality, with fears that information would be shared with teachers and peers, affect students' grades and negatively impact on their future *(121)*. Among Syrian refugees seeking tele-psychiatric services, of those who wanted to consult a psychiatrist, less than half did so due to fear that poor Internet security would result in lack of privacy and confidentiality *(55)*.

2.2.9.3 Transportation

Seven reviews highlighted challenges with transportation to mental health services, including a lack of availability and the cost of public transport *(64,116,118,122,130,133,135)*. A review of refugees living in rural Australia reported that most migrant- and refugee-specific mental health services were located in cities *(60)*. Poor public transport between rural areas and cities can limit access to central mental health services *(116,130)*. One review reported that obtaining a driving licence significantly improved resilience among parents of children with a neurodevelopmental disability by increasing their access to disability services for their child *(130)*.

2.3 Facilitators and barriers to mental health services for refugees and migrants during the COVID-19 pandemic

The COVID-19 pandemic deepened pre-existing economic, social and health inequities faced by refugees and migrants: exposure to risk factors for mental health conditions increased and barriers in accessing mental health services have been exacerbated *(139,140)*.

[4] *Brackets are in the original text.*

2.3.1 Summary of included studies

Eleven articles assessing facilitators and barriers to mental health services for refugees and migrants during the COVID-19 pandemic were eligible for inclusion *(139–149)*. Of these, five were quantitative, three were qualitative and three were mixed-methods studies. Studies sought the perspectives of migrants (five studies), refugees (two studies) and mental health practitioners or service providers (two studies). Seven studies assessed international migration; one assessed internal migration and three did not specify the type of migration. Seven studies focused on adults; one on adolescents and adults; one on children, adolescents and adults; one on children and adolescents; and one on children only. Host countries were predominantly high-income countries. Eight studies did not specify the mental health condition studied; of those that did, three assessed depression, two assessed anxiety and one assessed each of the following: behavioural disorders, PTSD and substance use disorders. No study focused on psychosis. All 11 studies were published in English

2.3.2 Availability

The availability of in-person mental health services was severely impacted by the COVID-19 pandemic. Among migrants living in Canada, the main difficulties migrants faced in accessing care were securing an appointment and required services being unavailable when needed *(141)*. A shift towards online service provision and tele-mental health facilitated access for some migrants. Among irregular migrants from Central America and South America living in the United States, most felt that the availability of remote psychiatry services during the pandemic helped them to manage their anxiety (87.5%) and depression (84.4%) *(142)*. In a study of mental health service providers for refugees, 75% of health care workers felt they were able to help their clients as much using tele-mental health as they had using in-person sessions *(143)*.

As tele-mental health is a new mode of working, resources to aid this digital shift should be available. For example, only 29% of refugee mental health service providers in the United States had provided tele-mental health services prior to the pandemic *(143)*. Service providers felt that tele-mental health training (94%) and weekly check-ins with supervisors (88%) were helpful in adapting

to tele-mental health. Many service providers used self-directed preparation that included setting up a home office and seeking information on tele-mental health practice *(143)*. Case study 5 gives an example of mental health services for refugees and asylum seekers during the COVID-19 pandemic.

Case study 5. Mental health services for refugees and asylum seekers in Malaysia during the COVID-19 pandemic

The COVID-19 pandemic and resulting lockdowns in Malaysia significantly limited the provision of humanitarian assistance to refugees and asylum seekers. In response, UNHCR launched a series of nationwide public health response measures. The initiatives aimed to scale-up MHPSS in the form of Integrative Adapt Therapy for all refugees and asylum seekers across Malaysia *(168)*.

The activities included:

- training a large group of practitioners across diverse implementation platforms (including primary health clinics, schools and community centres);
- providing both physical and digital safe spaces for victims of sexual and gender-based violence;
- creating tele-health programmes to promote resilience and mental health across culturally diverse communities;
- establishing a multilingual tele-health clinic to facilitate access to mental health services through efficient triaging of service users; and
- ensuring that Integrative Adapt Therapy practitioners are supervised by master trainers.

This national capacity-building approach enabled UNHCR's partner organizations to provide mental health services to refugees and asylum seekers across geographically dispersed areas of Malaysia. Rigorous training, supervision of practitioners, quality assurance and monitoring of outcomes enabled this evidence-based intervention to be rapidly deployed to refugees and asylum seekers in need of mental health support.

2.3.3 Accessibility

Although the shift towards online platforms for delivering mental health interventions has made services more accessible to some, other evidence suggests that mental health services have become less accessible to refugees and migrants. In a study of migrants in Canada, 41% of participants reported difficulties in accessing mental health care during the pandemic *(141)*. In Türkiye, the number of admissions to an outpatient mental health unit for refugees decreased during the pandemic: significantly fewer girls were admitted and admissions for internalizing disorders decreased, but admissions for externalizing disorders increased *(144)*.

2.3.3.1 Language barriers

Studies reported that the use of interpreters became more challenging during the COVID-19 pandemic *(140,143)*. For example, in a qualitative study of Brazilian migrants in the United States, many migrants attributed a lack of access to mental health services to difficulty in finding providers who spoke Portuguese and understood Brazilian culture *(145)*. As one refugee community volunteer working in the United States stated, "I was trying to link [a Congolese refugee][5] up with a therapist who spoke her language, but there were no providers at all in this area that I could find that speak their language or have experience working with this community" *(140)*.

One mental health service provider for refugees in the United States reported that there was "more difficulty hearing and understanding individuals" in the absence of an interpreter but that it was challenging to incorporate an interpreter into an online consultation *(143)*.

2.3.3.2 Digital platforms

Although online consultations have increased accessibility for many, for some individuals the digital shift represents an additional barrier to accessing services. One study found that some refugees and migrants may have limited digital literacy or lack access to digital technologies, which creates a barrier to accessing mental health information, resources and support *(143)*. Mental health service providers reported the following *(140)*:

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[5] *Brackets are in the original text.*

> Suppose people lack virtual access .... If people do not have internet access, just something they are not used to using, like Zoom. It is so brand new to try and teach them and say jump on your computer, which some people may not have, and say click this link and start talking is difficult. It is too challenging for people.

In a feasibility study of an online wellness curriculum for Afghan refugee youth in the United States that was adapted for the pandemic, all those who reported challenges attributed this to issues with the online platform, including a prolonged loss of power after a severe storm, feeling too shy to go on camera and being unable to set up the call without help from parents *(146)*. However, despite these issues, the results suggested that the programme was generally acceptable, with 87% of families completing the course: of these, all reported that they would enrol again for the same programme. Notably, this programme also included five in-person activities in addition to the four weekly, 1-hour online sessions *(146)*.

For some refugees and migrants, the move towards online consultations may risk further isolation and impede their integration into the local community. One mental health provider for refugees suggested that tele-mental health should be an option, but not the only one, especially for at-risk clients: "Therapists/care managers should decide which delivery service method is appropriate for at risks [sic] clients" *(143)*. This is particularly pertinent when considering the difficulties of supporting individuals who may be experiencing suicidal thoughts.

2.3.3.3 Lay support for accessing services

Community leaders, volunteers and interpreters play an important role in facilitating refugees' and migrants' access to health care appointments. In many cases, lay support is essential for individuals to access services. For example, in a study of African migrants in South Australia, a service provider reported: "The barriers are the locations of certain places that people need to travel, not understanding or not knowing how to catch public transport" *(147)*.

Providing lay support has become more difficult in the context of the pandemic, and collaboration with mental health service providers has become more challenging *(140)*.

2.3.3.4 Lack of privacy

Mental health service providers for refugees in the United States raised concerns about a lack of privacy for clients during consultations, and had to adjust their routines and home environments to ensure private and uninterrupted online consultations *(143)*.

2.3.4 Acceptability

The reduction of in-person services has affected the acceptability of mental health services because some individuals might not feel at ease using tele-mental health services. A mental health service provider for refugees in the United States reported that before starting therapy they would spend time explaining to clients the need for and the benefits of tele-mental health consultations *(143)*. As a result of the challenges associated with tele-mental health services, some refugees and migrants have turned to faith-based and community organizations for emotional support during the pandemic. Brazilian migrants in the United States relied on online church services during lockdown, and often requested pastoral counselling to deal with mental disorders *(145)*.

Even when service providers have the capacity to provide services and accommodate cultural needs, the services may not be acceptable: rapport, relationships and trust are more difficult to establish online, which creates a further barrier and reduces cultural relevance *(140,143)*. This is especially problematic where clients are reluctant to seek treatment. A resettlement service provider noted that before the pandemic they could accompany potential service users to visit a counsellor, encourage them to keep an open mind and help to overcome potential attitudinal barriers. The shift towards digital health has limited their ability to mediate in this way, so that now they can only try "to convince somebody with words only and then sort of [leave] it to them to see if they can follow up on their own" *(140)*.

2.3.5 Affordability

Accessing tele-mental health services relies on service users' access to electronic devices, Internet and financial resources to pay for data usage. Those without access to computers or tablets rely on their mobile phones, which often do not have sufficient bandwidth to engage in video sessions *(143).*

2.3.6 Awareness

The COVID-19 pandemic adversely affected information provision to newly arrived refugees and migrants about health systems in the country of resettlement. Newly arrived refugees in the United States did not receive the usual cultural orientation sessions, which led to distress, frustration and difficulty in navigating health resources *(140)*: "Lack of knowledge and orientation to health care have already interrupted access to adequate care for refugee newcomers before COVID-19, and these barriers got seemingly exacerbated since the pandemic" *(140).*

Gender-based violence among Brazilian migrants in the United States was exacerbated during the pandemic, particularly during lockdowns *(145)*. In the same study, a social service provider reported that those who did not speak English fluently had difficulty finding out how to request translation services and access relevant services.

2.3.7 Attitudes and stigma

Despite the availability of tele-mental health services, stigma around mental disorders was a barriers to using them. Although online and telephone counselling was available to migrants in a migrant shelter in Mexico, these services were not used owing to a lack of recognition that mental health conditions might require care *(139)*. Similarly, among migrants from Saudi Arabia living in various host countries, only 8.3% of migrants felt that they needed access to mental health services, despite 47.7% and 38.3% of those

with symptoms of depression and anxiety, respectively, reporting that their symptoms impacted their daily functioning *(148)*. Providers of health care to refugees in the United States considered stigma a main barrier to access to mental health services: “[Refugees] don’t know that in the United States it is a common thing to talk about our [mental health][6] problems and that there are people who can help them, so it’s really been hard to build that trust and to get them to see a therapist or counsellor who speaks the language” *(140)*.

A community health liaison officer for refugees in the United States reported using the term **wellness** rather than **mental health** to increase acceptability: “because if you say ‘mental health’ you fall into that stigma” *(140)*.

[6] *Brackets are in the original text.*

3. Discussion

3.1 Strengths, limitations and research gaps

A strength of this GEHM is its broad scope and systematic approach to synthesize research on the mental health of refugees and migrants across the world. The report proposes holistic conceptual frameworks for risk and protective factors and for facilitators and barriers to services among refugees and migrants. This is important because research to date has mainly focused on specific types of risk factor and barrier; for example, numerous systematic reviews reported demographic and pre-migration risk factors (e.g. age, gender, country of origin and exposure to conflict), but fewer reported on health, policy-level and environmental factors.

A limitation of the broad, high-level approach adopted for this report is that granularity was lost: complex, nuanced trends across and between refugees and migrants within different contexts was at times missing among more generalized findings. This made it difficult to provide specific answers to the ambitious policy questions. As with all umbrella reviews, there are risks of missing the most recent studies that have not yet been included in a systematic review and of the same empirical studies being used in multiple reviews. The focus on systematic reviews also meant that empirical data, such as those collected by IOM or UNHCR, were not included. However, case studies were used to help to address this.

Other limitations pertain to the availability of relevant reviews and studies and the quality of those included. Definitions of refugees and migrants varied, as did definitions of mental health conditions and mental health services. A direct comparison with the general population was often lacking, which made it difficult to quantify the additional risk experienced by refugees and migrants *(169)*. The risk of bias across included reviews and studies was variable, which somewhat limited the validity of findings. Most of the quantitative data were cross-sectional, which left the direction of causality between risk factors and mental health conditions unclear and highlights the need for more longitudinal work in this area.

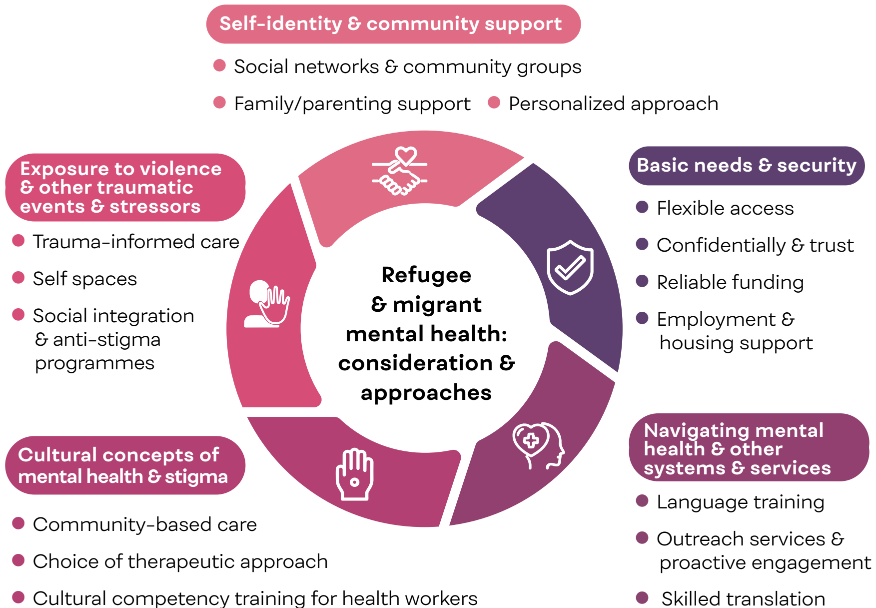
A number of significant research gaps exist in the current evidence. Studies of refugees and migrants living in LMICs are severely lacking. This gap was further compounded by the umbrella review design – since studies from LMICs are underrepresented in the peer-reviewed literature, they are less likely to be included in systematic reviews. Although several reviews focused on refugees and migrants from LMICs of origin, most of these assessed mental health outcomes following relocation to high-income countries. Exceptions were 10 reviews of refugees and migrants in LMICs: five on refugees and IDPs from Afghanistan, Iraq and the Syrian Arab Republic who had resettled within neighbouring countries *(55,62,70,73,81)*, three on internal labour migrants in China *(82,94,95)*, one on refugees and migrants from any country living in any LMIC *(98)*, and one on refugee, asylum seeker and IDP children living in LMICs *(68)*. Given that most of the world's population lives in LMICs and much of the world's migration flows occur within these regions, future systematic reviews should focus specifically on refugees and migrants in these settings. Understanding migration to countries other than Australia, Europe and the United States (where most efforts to date have been concentrated) is vital to understanding how differing political, legal, social and cultural contexts affect mental health needs. Moreover, health and social resources are more constrained in LMICs than in high-income countries, which may affect exposure to risk factors and reduce access to services among refugees and migrants *(98)*.

Other research gaps were evident. Older refugees and migrants were underrepresented, although this could reflect the fact that fewer people migrate in older age. Research among LGBTQI+ refugees and migrants and systematic reviews of internal labour migrants were also lacking. Severe mental disorders such as psychosis were also underrepresented in the included systematic reviews. Future studies should address these gaps by disaggregating data to understand relative vulnerabilities across groups and the pathways to accessing mental health care.

3.2 Evidence interpretation and implications for policy and practice

The evidence suggests that patterns of risk and protective factors and barriers and facilitators to care differ among refugee and migrant groups. From these patterns emerged five interrelated, high-level themes that are relevant across refugee and migrant groups, contexts and stages of the migration process: self-identity and community support, basic needs and security, cultural concepts of mental health and stigma, exposure to adversity and potentially traumatic events, and navigating mental health and other systems and services. These are discussed in this section, with a consideration for how they might help to shape policy and practice (discussed in section 3.3.). Fig. 4 shows the intervention approaches related to a single theme but, in reality, they may have cross-cutting effects.

Fig. 4. Considerations and approaches for refugee and migrant mental health



3.2.1 Self-identity and community support

Self-identity and community support conceptualizes the meanings we attach to our various roles in society; how we relate and commit to social groups, categories and ideologies; and our understanding of who we are *(170–172)*. Identity is fluid: it is constructed and deconstructed in response to interactions with people and spaces, and shaped to navigate social structures and promote acceptance *(173)*. Self-identity theory suggests that individuals may discriminate against other groups to promote their own status and build self-esteem *(174)*.

Refugees' and migrants' self-identity and community support are challenged by geographical and temporal dislocation from their pre-migration lives; loss of contacts; and exposure to new contexts, cultures and people – the identity of the last may also be challenged and elicit responses that can exacerbate distance and exclusion *(175)*. Retaining a connection to one's own heritage while establishing a sense of belonging and a new self-identity in the destination country may benefit mental health *(57,69,100)*. Self-identity first emerges in adolescence and might be an important issue for adolescent migrants whose identity is challenged by the transition to adulthood and associated biological, psychological and social changes, as well as the migration experience *(176)*. Refugees and migrants who are forced to hide their identity because of fear of persecution in their country of origin (e.g. LGBTQI+ and religious minority groups) may experience further distress during the process of disclosing their status in the destination country *(177)*.

In the United Kingdom, Refugee Action and the British Refugee Council run resettlement programmes to befriend and support refugees that are facilitated by local volunteers, including refugees *(178)*. In the United States, the Family Strengthening Intervention for Somali Bantu and Bhutanese refugee families (led by refugee health workers) reduced traumatic stress reactions and caregiver-reported depressive symptoms in children compared with controls *(179)*.

3.2.2 Basic needs and security

Basic needs and security characterize all stages of the migration journey and represent risk factors for mental health conditions. Refugees and migrants

experience significant losses including loss of homes, employment, livelihoods, belongings, as well as of loved ones. This GEHM found that insecure income, employment, housing, legal status and access to food are consistently associated with poor mental health *(72,81,83,180)*. Moreover, the threat of deportation, imprisonment and resettlement are realities for many refugees and migrants with insecure legal status and for asylum seekers *(121,124,135)*.

Poverty contributes to precarity for refugees and migrants *(181)*. Many people migrate out of financial necessity and use their earnings to support families left behind. Refugees and asylum seekers are often forced to leave behind their homes, livelihoods and personal wealth and arrive in the transit or destination country with no financial resources. Refugees and migrants living in poverty often prioritize safety and security over health. Daily stressors and post-migration living conditions significantly impact mental health outcomes and must be assessed alongside pre-displacement potentially traumatic events *(181–183)*.

Community sponsorship schemes in Canada and the United Kingdom involve local groups (e.g. faith organizations, charities and businesses) in supporting refugee families through financial commitment, identifying suitable housing and working with local authorities *(184,185)*.

3.2.3 Cultural concepts of mental health as well as stigma

The various ways in which different cultural groups explain and experience mental health conditions are important to consider, and all psychology and mental health and psychosocial services should be sensitive to culture and context. An issue for mental health care worldwide is that mental health problems are largely medicalized, whereas people with lived experiences mostly locate the explanations for their problems in the social world. For example, the perceived causes of depression and PTSD among Cameroonian, Eritrean, Somali and Syrian refugees include external stress, social problems, social isolation and spiritual possession *(186,187)*. Sociocultural beliefs about what causes mental health conditions are some of the many influences on coping, help-seeking, treatment preferences (location and content), adherence, outcomes and stigma *(188,189)*. Diagnoses that are culturally incongruent may occur when health professionals and the person

experiencing the mental health condition have different explanatory models of distress *(63)*. The labels and the treatments that such "false" diagnoses lead to may not align with the meaning that individuals ascribe to their problems, thereby creating a cycle of misunderstanding and leaving mental health conditions inadequately addressed.

The findings of this GEHM suggest that stigma is a key risk factor for mental health conditions among refugees and migrants, acts as a barrier to accessing mental health services and influences the acceptability of treatment. Stigma is related to explanatory models of mental illness and is conceptualized as perceived, anticipated, internalized or experienced stigma (i.e. discrimination) *(190)*. The findings suggest that refugees and migrants with mental health conditions may experience stigma from family, friends and health professionals. Although this holds true across all populations, the association may be more pronounced among refugees and migrants, many of whom experience discrimination and myriad other daily stressors.

3.2.4 Exposure to adversity and potentially traumatic events

Findings highlight the relationship between mental health and exposure to violence before, during and after the migration process. Refugees may be driven from their country of origin by conflict and acts of atrocity. Refugees and migrants using smuggling networks to move across borders reported physical violence, forced labour, inhuman and degrading treatment, and sexual violence *(191)*. During transit, in protracted refugee settings and in the destination country, refugees and migrants may be victims of human trafficking, forced to work as sex or domestic workers, and subjected to physical and sexual violence and commercial sexual exploitation. Refugees and migrants frequently report abuse, discrimination, racism, xenophobia and exploitation in work, school and health care settings *(192)*. Asylum seekers have reported examples of violence and punishment in certain detention centres *(105)*. Exposure to violence is a risk factor for mental health problems as well as a barrier to care-seeking. Among victims of torture, shame and guilt are barriers to help-seeking. Refugees and migrants may be victims or perpetrators of violence; they may be significantly affected by the experience of violence but afraid to admit it because of concerns about confidentiality, legal repercussions and safety.

Media campaigns can improve public awareness of violence against refugees and migrants, promote accurate information, emphasize the positive contributions of refugees and migrants, and call out harmful stereotyping of refugee and migrant groups. For example, the Costa Rican "People without Borders" radio programme ran for 9 years and sought to provide accurate information about migration issues and promote social integration *(192)*.

3.2.5 Navigating mental health and other systems and services

This GEHM found consistent evidence that unfamiliarity with health and welfare systems in the destination country prevents refugees and migrants from accessing mental health care. An increasing reliance on online referral systems and the move to telepsychiatry during the COVID-19 pandemic exacerbated the barriers to care *(143)*. Asylum seekers need timely decisions about their refugee status, with access to mental health services while they are waiting *(193)*.

3.3 Policy considerations

Based on the five themes, the main policy considerations to benefit the mental health of refugees and migrants are as follows.

- **Implement policies and programmes for refugees and migrants that promote their social integration, facilitate their participation in society and reduce anti-migrant sentiment and discrimination by:**
    - utilizing the concepts of self-identity and community support;
    - strengthening family bonds and community networks (including people from both the country of origin and host country), with a focus on befriending and support;
    - offering a range of mental health services/treatments through a personalized care approach; and
    - integrating policies for mental health of refugees and migrants in general mental health policies.

- **Ensure that migrant policies recognize and address the social determinants of mental health and prioritize basic needs including food, housing, safety, and education or employment by:**
  - providing early and increased access to education for refugees as a way to reduce welfare use and improve future employment and income prospects *(194)*;
  - using settings other than detention facilities to assess the status of refugees and migrants, especially for the most vulnerable groups; and
  - ensuring that resettlement schemes in destination countries are fit for purpose, responsive to mass displacement from conflict and disaster, and linked to local communities and services.

- **Strengthen the capacity of health care workers to assess and treat mental disorders among refugees and migrants from diverse cultural backgrounds, as well as the capacity of other relevant professionals (such as migration officers, social workers or teachers) to recognize and support refugees and migrants with mental health conditions by:**
  - implementing psychoeducation initiatives that engage community and health partners to build a shared understanding of mental health conditions and refugee and migrant issues, identify culturally appropriate terminology, and find acceptable approaches to referral, diagnosis and treatment;
  - adopting a multidisciplinary approach (including social workers, housing officers, financial advisors, employment support workers and primary health care workers) to address the biological, psychological and social dimensions of mental ill health; and
  - putting in place supportive structures (including supervision) to ensure the sustainability of task-shared mental health care, while recognizing that this may be more straightforward to achieve in some settings (e.g. high-income countries) than in others (e.g. refugee camps).

- **Provide choices about the delivery model for mental health care (including the location, facilitator, referral pathway and treatment approach) to improve access to care and acceptability, empower individuals and optimize outcomes by:**
    - locating services in community centres, women's groups and schools, providing appropriate interpreter services, matching therapists to clients (e.g. based on gender, language or cultural background) and mobilizing communities to support themselves (e.g. by training lay workers and peer supporters) to reduce stigma-related barriers *(195,196)*;
    - ensuring sustainable funding for individual, group and tele-mental health care services that are available outside normal working hours and accessible to individuals with no fixed abode;
    - guaranteeing confidentiality in health and social care pathways to allay fears of legal repercussions from help-seeking and build trust between service users and providers *(65)*; and
    - providing accessible and acceptable acute crisis care for refugees and migrants who have delayed seeking treatment.

- **Safeguard the human rights of all refugees and migrants regardless of legal status by strengthening national and international policies and criminal justice measures that protect migrants from discrimination and violence by:**
    - preventing violence in detention facilities and strengthening legislation to prosecute the perpetrators *(192)*;
    - ensuring that mental health care providers are informed of and sensitive to a client's previous traumatic events and that individuals with mental health conditions linked to traumatic events (such as PTSD) are referred to protection and human rights agencies *(197)*;
    - providing female staff and safe houses for women and children and ensuring privacy, confidentiality and security for victims/witnesses to improve the reporting of violence and access to psychosocial support for women; and

  - promoting social integration through language training *(198)*, cultural mentoring for children and adolescents *(199)* and media campaigns to improve public awareness of violence against refugees and migrants, promote accurate information, emphasize the positive contributions of refugees and migrants, and call out harmful stereotyping.

- **Strengthen community capacity for and access to mental health care by providing information about services and psychoeducation, mobilizing communities to support themselves, proactively engaging with migrant groups, and providing community-based referral pathways by:**
  - ensuring orientation to key services and entitlements on arrival in the destination country and, for asylum seekers, ensuring timely decisions about their refugee status, with access to mental health services while they are waiting *(193)*;
  - providing health care professionals (including those in primary health care, emergency services and mental health care) with information on the rights and eligibility of refugees and migrants;
  - proactively engaging services to provide transport, proficient and timely translators, accompaniment to appointments where needed, and practical support with immigration and registration documents and procedures; and
  - implementing language and digital literacy programmes that promote access to local services and community groups, employability and a sense of belonging.

4. Conclusions

Refugees and migrants encompass a diverse group of people whose circumstances and experiences are shaped by their reasons for migration, their migration journeys, and factors such as legal status, the political environment, social support networks, employment opportunities and the accessibility of health care services in destination countries. Although migration may bring benefits for mental health and well-being among some refugee and migrant groups, others have an increased risk of experiencing mental health conditions. Understanding the challenges facing refugees and migrants is key to ensuring that those at risk of mental health conditions are identified and adequately supported, while understanding the factors that facilitate access to mental health services is essential for effective policy and programming. The evidence-informed policy considerations arising from this global review serve as a starting point for recognizing and responding to the needs of refugee and migrant groups. Going forward, support (mental health and social services) for refugees and migrants should centre on human rights and be individualized and empowering, engage with the local community and be sensitive to culture and context. Open dialogue between refugee and migrant groups and the communities in which they are living, health and social care providers, and local and global policy-makers is important to facilitate shared understandings of mental health conditions and more feasible, acceptable interventions.

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Annex 1. Search strategies

An umbrella review and a systematic review were conducted to identify global evidence relevant to the three policy questions (Table A1.1).

Table A1.1. Methodology used to address each policy question

No.	Policy question	Methodology
1	What are the risk and protective factors contributing to mental disorders among refugees and migrants?	Umbrella review of systematic reviews published since 1 January 2012
2	What is the evidence on facilitators and barriers for refugees and migrants in accessing mental health services?	
3	What is the evidence on facilitators and barriers for refugees and migrants in accessing mental health services during the COVID-19 pandemic?	Systematic review of empirical studies published since 1 January 2020

Search strategy for the umbrella review

Databases and websites

An umbrella review of systematic reviews on risk and protective factors for mental disorders among refugees and migrants and on facilitators and barriers for refugees and migrants in accessing mental health services was conducted in January 2022, with no restrictions on language, age or geographical scope.

Searches were performed of academic databases for systematic reviews published between 1 January 2012 and 1 January 2022: Cochrane Library Embase (Ovid), Global Health, MEDLINE, PsycInfo, Scopus and Web of Science. Since the main bibliographic databases have incomplete coverage of articles published in languages other than English *(1)* and of journals from LMICs *(2)*, the China National Knowledge Infrastructure (CNKI) database was also searched using keywords translated into Mandarin. To identify any further systematic reviews that had been missed by the database search, a grey literature search of the following websites was conducted: Centre for Agriculture and Bioscience International (CABI) database, Google, Google Scholar, Health Policy Reference Centre, IOM, Mental Health Innovation Network, MHPSS.net, OpenGrey, OpenSIGLE, UNHCR and WHO. Websites of nongovernmental organizations and charities were also searched. All searches were conducted on 28 January 2022. Searches were limited to the previous 10 years in order to focus on more recent global migration patterns and trends.

Search terms

Customized search strategies were developed and piloted using the following search filters, MeSH terms, Boolean search methods and free text terms:

- mental health, mental disorder*, mental illness*, depress*, anxiety, psych*, trauma*, stress*, behave*, dement*, Alzheimer*, alcohol*, drug*, illicit, substance misuse, self*harm, suicid*;
- migrant*, immigrant*, emigrant*, migration, refugee*, displaced person*, displaced people*, internally displaced, asylum, foreign, non-native; and
- risk*, risk factor*, protective factor*, facilitate*, access*, barrier*, facilitator*, prevent*, treat*, service*, care, program*, predict*, determinant*, affordab*, availab*, accommodation, accepta*, awareness, stigma*, help*seeking.

These strategies were then adapted to search the following databases: Cochrane Library Embase (Ovid), Global Health, MEDLINE, PsycInfo, Scopus and Web of Science.

Cochrane Library

No.	Search string	Hits
1	(mental health OR mental disorder* OR mental illness* OR depress* OR anxiety OR psych* OR trauma* OR stress* OR behavi* OR dement* OR Alzheimer* OR alcohol* OR drug* OR illicit OR substance misuse OR self*harm OR suicid*):ti,ab,kw	928 525
2	(migrant* OR immigrant* OR emigrant* OR migration OR refugee* OR displaced person* OR displaced people* OR internally displaced OR asylum OR foreign OR non-native):ti,ab,kw	7 292
3	(risk* OR risk factor* OR protective factor* OR facilitate* OR access* OR barrier* OR facilitator* OR prevent* OR treat* OR service* OR care OR program* OR predict* OR determinant* OR affordab* OR availab* OR accommodation OR accepta* OR awareness OR stigma* OR help*seeking):ti,ab,kw	1 291 381
4	#1 AND #2 AND #3	60

Embase (Ovid)

No.	Search string	Hits
1	mental health.mp. or exp Mental Health/	35 5251
2	mental disorder.mp. or exp Mental Disorders/	2 389 236
3	mental illness.mp.	43 344
4	exp Depression/	529 698
5	depress*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	869 830
6	exp Anxiety/ or anxiety.mp. or exp Anxiety Disorders/	552 043

Embase (Ovid). contd

No.	Search string	Hits
7	psych*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	2 014 731
8	trauma*.mp. or exp Psychological Trauma/	568 053
9	stress*.mp. or exp Stress Disorders, Post-Traumatic/ or exp Stress Disorders, Traumatic, Acute/ or exp Stress, Psychological/	1 546 393
10	behavi*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	2 184 954
11	dementia.mp. or exp Dementia/	428 394
12	exp Alzheimer Disease/ or Alzheimer*.mp.	271 391
13	exp Alcohol Drinking/ or exp Alcoholism/ or alcohol disorder.mp. or exp Alcohol-Related Disorders/	163 387
14	alcohol*.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	719 251
15	exp Substance-Related Disorders/ or substance misuse.mp.	255 429
16	drug.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	11 828 701
17	exp Illicit Drugs/ or illicit.mp.	32 051
18	exp Self-Injurious Behavior/ or self*harm.mp.	20 803
19	exp Suicide/ or suicid*.mp. or exp Suicide, Attempted/ or exp Suicidal Ideation/	144 462

Embase (Ovid). contd

No.	Search string	Hits
20	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19	16 802 930
21	exp "Emigration and Immigration"/ or exp "Transients and Migrants"/ or migrant*.mp.	66 923
22	exp Undocumented Immigrants/ or immigrant*.mp.	36 161
23	emigrant*.mp.	2 155
24	exp Human Migration/ or migration.mp.	479 355
25	refugee*.mp. or exp Refugees/	18 320
26	displaced person.mp.	128
27	displaced people.mp.	347
28	internally displaced.mp.	820
29	asylum.mp.	4 732
30	foreign.mp.	122 897
31	non*native.mp.	2 095
32	21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31	645 697
33	(risk* or risk factor* or protective factor* or facilitate* or access* or barrier* or facilitator* or prevent* or treat* or service* or care or program* or predict* or determinant* or affordab* or availab* or accommodation or accepta* or awareness or stigma* or help*seeking).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	18 921 593
34	20 and 32 and 33	183 176
35	limit 34 to ("systematic review" and 2012–2022)	1 451

Global Health

No.	Search string	Hits
1	mental health.mp. or exp mental health/	39 650
2	mental disorder.mp. or exp mental disorders/	85 931
3	mental illness.mp.	54 088
4	exp depression/	28 480
5	depress*.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	57 888
6	anxiety.mp. or exp anxiety/	24 582
7	psych*.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	113 476
8	exp trauma/ or trauma*.mp.	50 188
9	exp mental stress/ or stress*.mp. or exp stress/	141 626
10	behavi*.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	267 213
11	exp dementia/ or dementia.mp.	18 608
12	Alzheimer*.mp. or exp Alzheimer's disease/	13 977
13	alcohol disorder.mp. or exp alcoholism/	9 928
14	alcohol*.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	132 625
15	substance misuse.mp. or exp substance abuse/	30 220
16	drug.mp. [mp=abstract, title, original title, broad terms, heading words, identifiers, cabicodes]	723 166
17	illicit.mp.	5 103
18	self*harm.mp.	361
19	suicid*.mp. or exp suicide/	11 775

Global Health. contd

No.	Search string	Hits
20	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19	1 265 671
21	migrant*.mp. or exp migrants/	10 096
22	immigrant*.mp. or exp immigrants/ or immigration.sh.	11 734
23	emigrant*.mp.	233
24	migration.mp. or exp migration/	28 733
25	refugee*.mp. or exp refugees/	5 407
26	displaced person.mp.	37
27	displaced people.mp.	191
28	internally displaced.mp.	484
29	asylum.mp.	876
30	foreign.mp.	13 911
31	non*native.mp.	115
32	21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31	60 627
33	(risk* or risk factor* or protective factor* or facilitate* or access* or barrier* or facilitator* or prevent* or treat* or service* or care or program* or predict* or determinant* or affordab* or availab* or accommodation or accepta* or awareness or stigma* or help*seeking).mp.	2 224 810
34	20 and 32 and 33	15 785
35	limit 34 to last 10 years	10 509
36	exp systematic reviews/	44 647
37	35 and 36	258

MEDLINE

No.	Search string	Hits
1	mental health.mp. or exp Mental Health/	23 0179
2	mental disorder.mp. or exp Mental Disorders/	1 350 449
3	mental illness.mp.	33 015
4	exp Depression/	137 052
5	depress*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	597 056
6	exp Anxiety/ or anxiety.mp. or exp Anxiety Disorders/	309 792
7	psych*.mp.	2 168 389
8	trauma*.mp. or exp Psychological Trauma/	463 173
9	stress*.mp. or exp Stress Disorders, Post-Traumatic/ or exp Stress Disorders, Traumatic, Acute/ or exp Stress, Psychological/	1 139 610
10	behavi*.mp.	1 847 994
11	dementia.mp. or exp Dementia/	234 995
12	exp Alzheimer Disease/ or Alzheimer*.mp.	180 974
13	exp Alcohol Drinking/ or exp Alcoholism/ or alcohol disorder. mp. or exp Alcohol-Related Disorders/	171 464
14	alcohol*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	459 013

MEDLINE. contd

No.	Search string	Hits
15	exp Substance-Related Disorders/ or substance misuse.mp.	298 144
16	drug.mp.	6 067 928
17	exp Illicit Drugs/ or illicit.mp.	28 049
18	exp Self-Injurious Behavior/ or self*harm.mp.	77 848
19	exp Suicide/ or suicid*.mp. or exp Suicide, Attempted/ or exp Suicidal Ideation/	104 908
20	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19	10 739 121
21	exp "Emigration and Immigration"/ or exp "Transients and Migrants"/ or migrant*.mp.	47 010
22	exp Undocumented Immigrants/ or immigrant*.mp.	32 972
23	emigrant*.mp.	15 481
24	exp Human Migration/ or migration.mp.	325 324
25	refugee*.mp. or exp Refugees/	16 386
26	displaced person.mp.	70
27	displaced people.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	305
28	internally displaced.mp.	744
29	asylum.mp.	4 063

MEDLINE. contd

No.	Search string	Hits
30	foreign.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	119 786
31	non*native.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	2 020
32	21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31	479 891
33	(risk* or risk factor* or protective factor* or facilitate* or access* or barrier* or facilitator* or prevent* or treat* or service* or care or program* or predict* or determinant* or affordab* or availab* or accommodation or accepta* or awareness or stigma* or help*seeking).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	14 310 728
34	20 and 32 and 33	96 990
35	limit 34 to ("systematic review" and 2012–2022)	601

PsycInfo

No.	Search string	Hits
1	mental health.mp. or exp Mental Health/	253 848
2	mental disorder.mp. or exp Mental Disorders/	923 463
3	mental illness.mp.	47 858
4	exp Depression/	26 411
5	depress*.mp.	402 393
6	exp Anxiety/ or anxiety.mp. or exp Anxiety Disorders/	281 760
7	psych*.mp.	1 766 645
8	trauma*.mp.	140 954
9	stress*.mp. or exp Stress Disorders, Traumatic, Acute/ or exp Stress, Psychological/	334 787
10	behavi*.mp.	1 405 830
11	dementia.mp. or exp Dementia/	108 317
12	exp Alzheimer Disease/ or Alzheimer*.mp.	71 165
13	exp Alcoholism/ or alcohol disorder.mp. or exp Alcohol-Related Disorders/ or exp Alcohol Abuse/	50 301
14	alcohol*.mp.	154 070
15	exp Drug Abuse/ or exp "Substance Use Disorder"/ or exp Drug Addiction/ or exp Drug Dependency/ or substance misuse.mp.	139 148
16	exp Drugs/ or drug.mp.	557 354
17	illicit.mp.	11 898
18	exp Self-Destructive Behavior/ or exp Self-Injurious Behavior/ or self harm.mp.	47 380

PsycInfo. contd

No.	Search string	Hits
19	exp Suicide/ or exp Suicidal Ideation/ or exp Attempted Suicide/ or suicid*.mp.	75 695
20	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19	3 316 450
21	migrant*.mp.	12 210
22	exp Immigration/ or immigrant*.mp.	35 416
23	emigrant*.mp.	3 997
24	exp Human Migration/ or migration.mp.	30 835
25	exp Refugees/ or refugee*.mp.	10 964
26	displaced person.mp.	82
27	displaced people.mp.	194
28	internally displaced.mp.	355
29	exp Asylum Seeking/ or asylum seeker.mp.	952
30	foreign.mp.	50 261
31	non*native.mp.	1 195
32	21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31	112 583
33	(risk* or risk factor* or protective factor* or facilitate* or access* or barrier* or facilitator* or prevent* or treat* or service* or care or program* or predict* or determinant* or affordab* or availab* or accommodation or accepta* or awareness or stigma* or help*seeking).mp.	2 595 604
34	20 and 32 and 33	34 866
35	limit 34 to ("systematic review" and 2012–2022)	294

Scopus

No.	Search string	Hits
1	TITLE-ABS-KEY (mental AND health OR mental AND disorder* OR mental AND illness* OR depress* OR anxiety OR psych* OR trauma* OR stress* OR behavi* OR dement* OR alzheimer* OR alcohol* OR drug* OR illicit OR substance AND misuse OR self*harm OR suicid*)	47 782
2	TITLE-ABS-KEY (migrant* OR immigrant* OR emigrant* OR migration OR refugee* OR displaced AND person* OR displaced AND people* OR internally AND displaced OR asylum OR foreign OR non-native)	6 458
3	TITLE-ABS-KEY (risk* OR risk AND factor* OR protective AND factor* OR facilitate* OR access* OR barrier* OR facilitator* OR prevent* OR treat* OR service* OR care OR program* OR predict* OR determinant* OR affordab* OR availab* OR accommodation OR accepta* OR awareness OR stigma* OR help*seeking)	2 272 877
4	((TITLE-ABS-KEY (mental AND health OR mental AND disorder* OR mental AND illness* OR depress* OR anxiety OR psych* OR trauma* OR stress* OR behavi* OR dement* OR alzheimer* OR alcohol* OR drug* OR illicit OR substance AND misuse OR self*harm OR suicid*)) AND (TITLE-ABS-KEY (migrant* OR immigrant* OR emigrant* OR migration OR refugee* OR displaced AND person* OR displaced AND people* OR internally AND displaced OR asylum OR foreign OR non-native)) AND (TITLE-ABS-KEY (risk* OR risk AND factor* OR protective AND factor* OR facilitate* OR access* OR barrier* OR facilitator* OR prevent* OR treat* OR service* OR care OR program* OR predict* OR determinant* OR affordab* OR availab* OR accommodation OR accepta* OR awareness OR stigma* OR help*seeking))	11

Scopus. contd

No.	Search string	Hits
5	TITLE-ABS-KEY (systematic AND review)	453 691
6	((TITLE-ABS-KEY (mental AND health OR mental AND disorder* OR mental AND illness* OR depress* OR anxiety OR psych* OR trauma* OR stress* OR behavi* OR dement* OR alzheimer* OR alcohol* OR drug* OR illicit OR substance AND misuse OR self*harm OR suicid*)) AND (TITLE-ABS-KEY (migrant* OR immigrant* OR emigrant* OR migration OR refugee* OR displaced AND person* OR displaced AND people* OR internally AND displaced OR asylum OR foreign OR non-native)) AND (TITLE-ABS-KEY (risk* OR risk AND factor* OR protective AND factor* OR facilitate* OR access* OR barrier* OR facilitator* OR prevent* OR treat* OR service* OR care OR program* OR predict* OR determinant* OR affordab* OR availab* OR accommodation OR accepta* OR awareness OR stigma* OR help*seeking))) AND (TITLE-ABS-KEY (systematic AND review))	0

Web of Science

No.	Search string	Hits
1	((((((((((((((TI=(mental health)) OR TI=(mental disorder)) OR TI=(mental illness)) OR TI=(depress*)) OR TI=(anxiety)) OR TI=(psych*)) OR TI=(trauma*)) OR TI=(stress*)) OR TI=(behavi*)) OR TI=(dementia)) OR TI=Alzheimer*)) OR TI=(alcohol*)) OR TI=(substance misuse)) OR TI=(drug)) OR TI+(illicit)) OR TI=(self*harm)) OR TI=(suicid*)	5 184 563
2	(((((((((TI=(migrant*)) OR TI=(immigrant*)) OR TI=(emigrant*)) OR TI=(migration)) OR TI=(refugee*)) OR TI=(displaced person)) OR TI=(displaced people)) OR TI=(internally displaced)) OR TI=(asylum)) OR TI=(foreign)) OR TI=(non-native)	498 991

Web of Science. contd

No.	Search string	Hits
3	((((((((((((((((((((TI=(risk*)) OR TI=(risk factor*)) OR TI=(protective factor*)) OR TI=(facilitate*)) OR TI=(access*)) OR TI=(barrier*)) OR TI=(facilitator*)) OR TI=(prevent*)) OR TI=(treat*)) OR TI=(service*)) OR TI=(care)) OR TI=(programm*)) OR TI=(predict*)) OR TI=(determinant*)) OR TI=(affordab*)) OR TI=(availab*)) OR TI=(accommodation)) OR TI=(accepta*)) OR TI=(awareness)) OR TI=(stigma*)) OR TI=(help*seeking)	11 703 827
4	TS=(systematic review)	461 122
5	#4 AND #3 AND #2 AND #1	67
6	#5 (limited to the last 10 years)	60

Study selection

Systematic reviews on risk and protective factors were included if they reported data on depression, psychosis, behavioural disorders, dementia, substance use disorders, self-harm and suicide, or PTSD/stress-related disorders. These outcomes were selected to align with disorders included in the WHO/UNHCR's mhGAP (3). Access to care was defined as the degree of fit between the clients and the system (4). Systematic reviews on facilitators and barriers to mental health care were included if they focused on affordability, availability, accessibility, accommodation, acceptability, awareness, stigma or help-seeking among refugees and migrants in relation to mental health care, and incorporated research from both patient and provider perspectives. Mental health care was defined as any type of support that aims to protect or promote psychosocial well-being and/or prevent or treat mental disorder (5). This included mental health care integrated into national health care systems, and programmes funded through nongovernmental organizations.

Systematic reviews were eligible for inclusion if they:

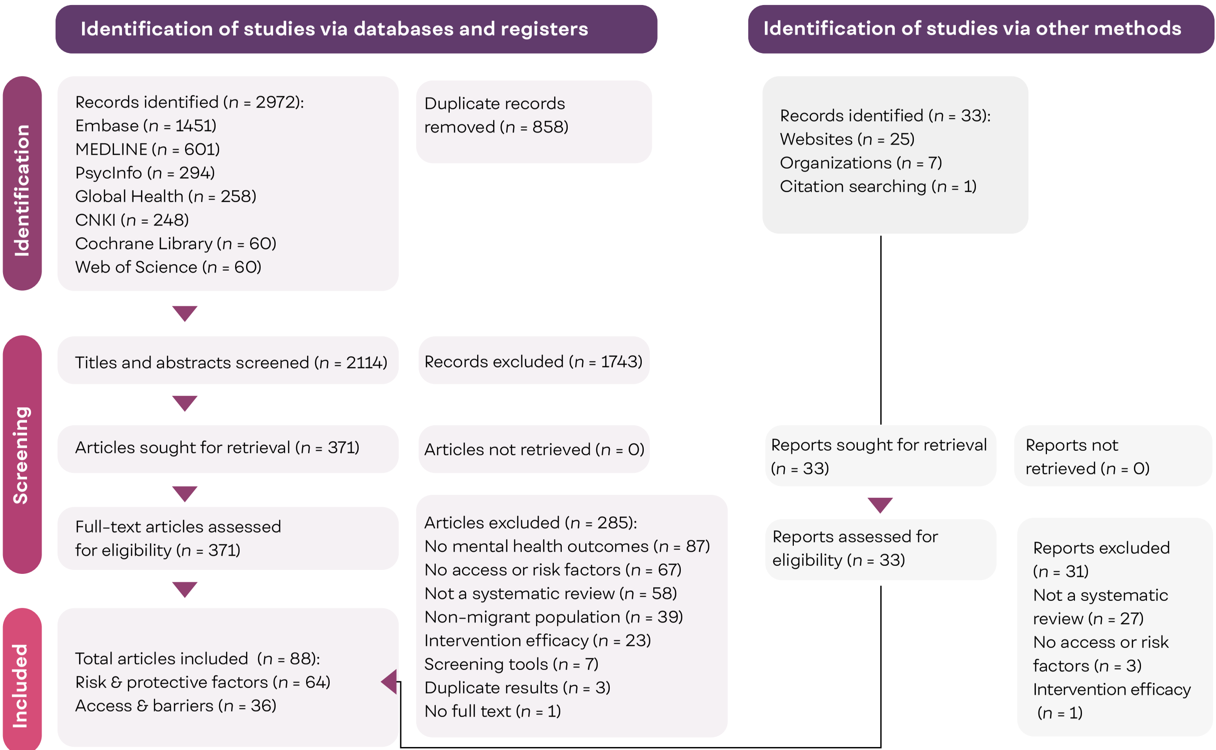
- contained a clear research question, a reproducible search strategy, relevant inclusion and exclusion criteria, rigorous screening methods and procedures for data extraction and critical appraisal, and information on data synthesis and analysis *(6)*;
- focused on refugees and migrants;
- were conducted in any country;
- were related to any age group; and
- were published in any language since 1 January 2012.

Systematic reviews were excluded if:

- it was not possible to extract specific data on the mental disorders listed above;
- it was not possible to extract information exclusively pertaining to refugee, migrant, asylum seeker or internally displaced populations; or
- they focused on ethnic minority groups but generalized findings across first- and second-generation migrants.

After deduplication, 2972 articles were identified through searches of databases and registers and 33 from other sources, of which 1743 were excluded based on their title or abstract. The remaining 371 full-text studies were assessed for eligibility. Of these, 88 systematic reviews were included: 64 on risk and protective factors and 36 on facilitators and barriers to mental health services, with 12 addressing both risk and protective factors and facilitators and barriers. Fig. A1.1 shows the PRISMA flowchart for the umbrella review *(7)*.

Fig. A1.1. PRISMA flowchart for umbrella review of risk and protective factors for mental health and access and barriers to mental health services among migrants and refugees



Search strategy for the systematic review

Databases, websites and search terms

A systematic review was also conducted of empirical studies reporting on access to mental health care among refugees, migrants, asylum seekers and IDPs during the COVID-19 pandemic. To identify empirical studies published in English, searches were conducted of the same academic and grey literature sources as used for the umbrella review, with all searches limited to studies published since 1 January 2020. The following search terms were used:

- mental health, mental disorder*, mental illness*, depress*, anxiety, psych*, trauma*, stress*, behave*, dement*, Alzheimer*, alcohol*, drug*, illicit, substance misuse, self*harm, suicid*;
- migrant*, immigrant*, emigrant*, migration, refugee*, displaced person*, displaced people*, internally displaced, asylum, foreign, non-native;
- access*, barrier*, facilitator*, prevent*, treat*, service*, care, program*, predict*, determinant*, affordab*, availab*, accommodation, accepta*, awareness, stigma*, help*seeking; and
- COVID, coronavirus, c19, c-19, pandemic, SARS-CoV.

Additional searches in Mandarin were conducted for the CNKI database and in Arabic using an Arabic language filter on Scopus. Search terms for COVID-19 in English and Arabic (where available) were also used to hand-search all papers published since 1 January 2020 in six key mental health journals from the Middle East and northern Africa: *Dirasat, Eastern Mediterranean Health Journal, Egyptian Journal of Psychiatry, Middle East Current Psychiatry, Psychiatry and Neurosurgery,* and *Saudi Psychiatric Journal.*

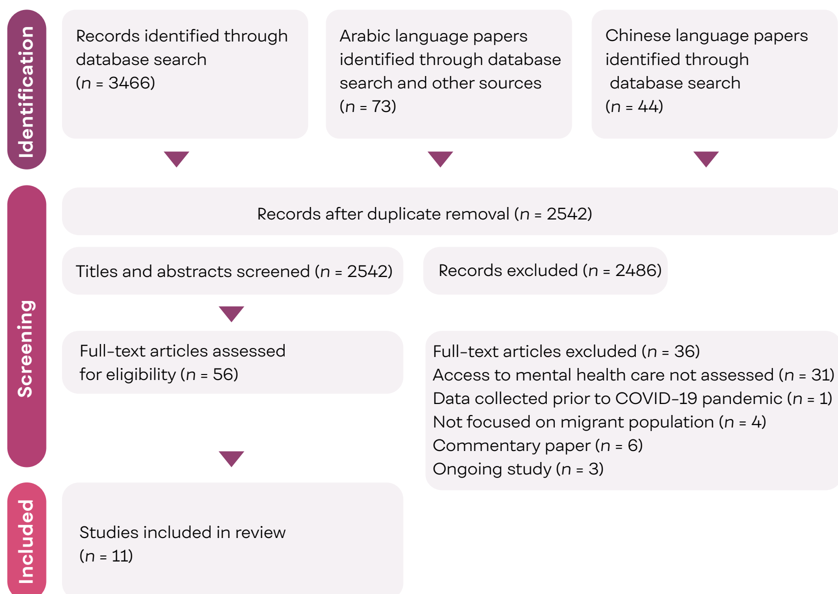
Study selection

Studies were eligible for inclusion included if they:

- had a qualitative, quantitative (observational longitudinal and cross-sectional) or mixed-methods design;
- reported on affordability, availability, accessibility, accommodation, acceptability, awareness, stigma, or help-seeking for mental health care among refugees and migrants; and
- included both the patient and provider perspectives *(4)*.

From a total of 3583 articles, after deduplication 2542 were screened for titles and abstracts. Of these, 56 full-text articles were assessed, and 11 met the inclusion criteria. Fig. A1.2 shows the PRISMA flowchart for the systematic review of facilitators and barriers to mental health services during the COVID-19 pandemic.

Fig. A1.2. PRISMA flowchart for systematic review of facilitators and barriers to mental health services during the COVID-19 pandemic among refugees and migrants



Screening and data extraction

For both the umbrella and systematic reviews, all article titles and abstracts were screened for relevance using Covidence software (8). A full-text review then conducted to identify articles that met the inclusion criteria, with additional information sought from authors as needed. Data were extracted from the included studies on study design, participant characteristics and numbers, mental disorders, settings and findings by a member of the research team using standardized piloted forms in Covidence (for reviews of risk and protective factors) and Microsoft Excel (for reviews of facilitators and barriers). Table A1.2 describes the characteristics of the systematic reviews of risk and protective factors included in the umbrella review.

Table A1.2. Characteristic of risk and protective factor studies included in the umbrella review

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Aghajafari, 2020 (69)	Both	Refugees, asylum seekers	Children (5–12 years)	Any (northern, western & sub-Saharan, Africa (Angola, Democratic Republic of the Congo, Egypt, Eritrea, Liberia, Libya, Somalia, Sudan); Afghanistan, Bhutan, Bosnia and Herzegovina, Cambodia, El Salvador, Guatemala, Iraq, Iran (Islamic Republic of), Kuwait, Lao People's Democratic Republic, Lebanon, Myanmar, Nicaragua, Russian Federation, Syrian Arab Republic, Thailand, Viet Nam, occupied Palestinian territory, former Yugoslavia)	Any (Australia, Canada, Costa Rica, Denmark, Eritrea, Ethiopia, Finland, Germany, Greece, Italy, Lebanon, Netherlands (Kingdom of the), Saudi Arabia, Thailand, Türkiye, Uganda, United Kingdom, USA)	Post	Behavioural disorder, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Ahn, 2018 (100)	Quant.	Migrants	Women who migrated for marriage	Any (Cambodia, China, Japan, Mongolia, Philippines, Thailand, Russian Federation, Viet Nam)	Republic of Korea	Post	Anxiety, depression
Anderson, 2017 (28)	Quant.	Refugees, migrants, asylum seekers	Perinatal women	Any (NR)	Any (HICs; mainly Australia, Canada, Taiwan (China), USA)	Post	Anxiety, depression, PTSD
Anderson, 2020 (71)	Quant.	Migrants	All	Any	Any (Canada, Denmark, England (United Kingdom), Israel, Netherlands (Kingdom of the), Sweden)	Post	Psychosis

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Antunes, 2017 (57) (Portuguese)	Both	Refugees, asylum seekers	All	Any (NR)	Any (NR)	Pre, transit, post	Anxiety, behavioural disorder, depression, PTSD, substance use disorder
Arakelyan, 2021 (86)	Both	Refugees, migrants, asylum seekers, IDPs	Children (0–18 years)	Any	Any (Africa, Asia, Europe, Middle East; Australia, Canada, Jordan, Lebanon, Türkiye, occupied Palestinian territory, United Kingdom, USA)	Post	Anxiety, behavioural disorder, depression, PTSD, substance use disorder, suicide & self-harm
Bamford, 2021 (67)	Quant.	Refugees	Refugee UASC	Any	Any	Post	Anxiety, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Bogic, 2015 (87)	Quant.	Refugees	Adult war refugees displaced for 5 years or longer	LMICs (Afghanistan, Bosnia and Herzegovina, Cambodia, Ethiopia, Guatemala, Indonesia, Iran (Islamic Republic of), Kurdistan Region of Iraq, Lao People's Democratic Republic, Liberia, Rwanda, Somalia, Sudan, Viet Nam, former Yugoslavia)	Any (Australia, Canada, France, Germany, Italy, Mexico, Netherlands (Kingdom of the), Norway, Thailand, Uganda, United Kingdom, USA)	Post	Anxiety, depression, PTSD
Bulik, 2019 (61)	Qual.	Refugees	Adults	Any (Horn of Africa, Latin America, Middle East; Bosnia and Herzegovina, Burma, Cambodia, Democratic Republic of the Congo, Kenya, Iraq, Liberia, Libya, Somalia, Sri Lanka, Sudan, Viet Nam, former Yugoslavia)	Any (Australia, Brazil, Canada, Denmark, Egypt, France, Norway, South Africa, Sudan, Thailand, United Kingdom, USA)	Post	Anxiety, depression, PTSD, stress-related disorder

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Byrow, 2020 (64)	Both	Refugees, asylum seekers, IDP	Adults	NR	Any (mostly HICs, some LMICs)	Post	General mental health
Chen, 2019 (89)	Quant.	Migrants	Postpartum women	China	Canada, Taiwan (China)	Post	Depression

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Close, 2016 (84)	Umbrella (quant.)	Refugees, migrants, asylum seekers	All	Any (Africa, North/Central/South America, Asia, Caribbean, Europe, Middle East, Scandinavia; Afghanistan, Australia, Bosnia and Herzegovina, Bhutan, Cambodia, China, Ethiopia, Finland, Greenland, Guatemala, Iran (Islamic Republic of), Iraq, Italy, Kosovo,[e] Myanmar, Netherlands (Kingdom of the), Puerto Rico, Republic of Korea, Sierra Leone, Somalia, former Soviet Union, Sudan, Türkiye, United Kingdom, Viet Nam, former Yugoslavia)	Any (North America; Argentina, Australia, Canada, China, Croatia, Demark, France, Gambia, Iran (Islamic Republic of), Israel, Italy, Netherlands (Kingdom of the), Nepal, New Zealand, Norway, Sweden, Thailand, Uganda, United Kingdom, USA)	Post	Anxiety, depression, psychosis, PTSD, stress-related disorder

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Curtis, 2018 (77)	Both	Refugees, migrants, asylum seekers	Children (0–18 years)	Any (multiple, including in Africa and Asia)	Europe (mostly northern and western Europe)	Post	PTSD, stress-related disorder, substance use disorder
Dapunt, 2017 (80)	Quant.	Refugees	Adolescents & adults	Any (eastern Europe, north Africa, Middle East, central and western Asia)	HICs (individual countries not listed)	Post	Psychosis
Edwards, 2019 (72)	Quant.	Refugees, migrants	Adults	Any	Canada	Post	Anxiety, depression
Falah-Hassani, 2015 (79)	Quant.	Migrants	Postpartum women	Any (NR)	Any (including Australia, Canada, Israel, Norway, Sweden, Switzerland, Taiwan (China), United Kingdom, USA)	Post	Depression

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Farahani, 2021 (75)	Both	Refugees, migrants, asylum seekers	Adults from conflict-affected areas	Any (Africa, Afghanistan, Bhutan, Democratic People's Republic of Korea, Djibouti, Eritrea, Ethiopia, Iran (Islamic Republic of), Iraq, Lebanon, Morocco, Pakistan, Somalia, Sri Lanka, Sudan, Syrian Arab Republic, occupied Palestinian territory, Zimbabwe)	Any (Europe; Australia, Canada, Germany, Greece, Jordan, Kenya, Lebanon, Republic of Korea, Türkiye, Sweden, United Kingdom, USA)	Post	General mental health
Fazel, 2012 (27)	Quant.	Refugees, migrants, asylum seekers, IDPs	Children (0–18 years)	LMICs (Central America, Middle East; Bosnia and Herzegovina, Cambodia, Chile, Croatia, Cuba, Iraq, Somalia, Sudan, Viet Nam, former Yugoslavia)	HICs (Australia, Belgium, Canada, Croatia, Denmark, Finland, Netherlands (Kingdom of the), Sweden, United Kingdom, USA)	Post	Anxiety, behavioural disorder, depression, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Fellmeth, 2017 (74)	Quant.	Refugees, migrants, asylum seekers	Perinatal women	LMICs (Latin America, South-east Asia)	Any (Europe; Australia, Canada, New Zealand, USA)	Post	Anxiety, depression, PTSD
Garcini, 2016 (93)	Both	Migrants	Adult irregular migrants resettled in the USA	Any (Latin America; China, Mexico, Poland, Republic of Korea)	USA	Post	Anxiety, depression, substance use disorder
Gargiulo, 2021 (78)	Both	Refugees, asylum seekers	Any	Any (NR)	Europe (including Belgium, Italy, Sweden, Switzerland, United Kingdom), Australia, USA	Post	Anxiety, depression, PTSD, psychosis, suicide & self-harm

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Giacco, 2019 (92)	Quant.	Refugees, asylum seekers	Adults	NR		Pre, transit, post	Anxiety, depression, PTSD
Guo, 2018 (106)	Quant.	Migrants	Older adults	China, Republic of Korea	USA	Post	Depression
Hajak, 2021 (96)	Quant.	Refugees, asylum seekers	Adults	Any (mostly Afghanistan, Iraq, Syrian Arab Republic)	Germany	Post	Anxiety, depression, PTSD
Hasan, 2021 (73)	Both	Migrants	Adult migrant workers	Any	Any	Post	Anxiety, depression

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Hassan, 2016 (63)	Both	Refugee, IDPs	Any	Syrian Arab Republic	Syrian Arab Republic	Transit, post	General mental health
Hawkes, 2021 (60)	Both	Refugees	All	Any (NR)	Australia	Post	Any
Hendrickx, 2020 (55)	Both	Refugees, IDPs	All	Syrian Arab Republic	Iraq, Jordan, Lebanon, Syrian Arab Republic, Türkiye	Post	Anxiety, depression, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Henkelmann, 2020 (103)	Quant.	Refugees	All	Any (Afghanistan, Bhutan, Bosnia and Herzegovina, Cambodia, Cuba, Democratic People's Republic of Korea, eastern Germany, Iran (Islamic Republic of), Iraq, Kosovo,[e] Lao People's Democratic Republic, Myanmar, Papua New Guinea, Somalia, Sri Lanka, Sudan, Syrian Arab Republic, Thailand, Viet Nam)	HICs (including Austria, Australia, Belgium, Canada, Croatia, Finland, Germany, Greece, Italy, New Zealand, Norway, Republic of Korea, Slovenia, Sweden, Switzerland, United Kingdom, USA)	Post	Anxiety, depression, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Heslehurst, 2018 (88)	Umbrella	Refugees, migrants, asylum seekers	Perinatal women	Any (Africa, Arabic countries, southern Asia, Caribbean, Central America, southern Europe, Indian Ocean islands, Latin America, Middle East, Pacific island States; Afghanistan, Algeria, Australia, Bangladesh, Bhutan, Cambodia, China, Colombia, Congo, Dominican Republic, Egypt, Eritrea, Ethiopia, France, Ghana, Haiti, Hong Kong SAR, India, Indonesia, Iraq, Ireland, Italy, Japan, Jordan, Kosovo,[e] Kuwait, Lao People's Democratic Republic, Lebanon, Malaysia, Maldives, Mexico, Morocco, Nepal,	Any (Europe; Austria, Australia, Belgium, Canada, Croatia, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Netherlands (Kingdom of the), New Zealand, Norway, Serbia, South Africa, Spain, Sweden, Switzerland, Taiwan (China), United Kingdom, USA)	Post	Anxiety, depression, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Heslehurst, 2018 (88)				Nigeria, Pakistan, Philippines, Portugal, Puerto Rico, Republic of Korea, Romania, Russian Federation, Rwanda, Saint Vincent and the Grenadines, Samoa, Scotland (United Kingdom), Singapore, Somalia, Sri Lanka, Sudan, Suriname, Sweden, Syrian Arab Republic, Taiwan (China), Thailand, Tunisia, Türkiye, former Yugoslavia, Viet Nam, occupied Palestinian territory)			

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Hohne, 2020 (76)	Quant.	Refugees	UASC (0–21 years)	Any (including Africa; Afghanistan, Albania, Kosovo,[e] Somalia, Sudan)	Any (Austria, Belgium, Finland, Germany, Netherlands (Kingdom of the), Norway, United Kingdom, USA)	Post	Anxiety, behavioural disorder, depression, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/ country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/ country/area	Stage of journey[d]	Mental health condition
Horyniak, 2016 (85)	Both	Refugees, asylum seekers, IDPs	Children & adolescents	Any (sub-Saharan Africa, Arab countries; Afghanistan, Algeria, Bosnia and Herzegovina, Bhutan, Colombia, Côte d'Ivoire, Cuba, Democratic People's Republic of Korea, Eritrea, Haiti, Kosovo,[e] Liberia, Myanmar, Sierra Leone, Somalia, Sudan, Togo, Uganda, Viet Nam, Yugoslavia)	Any (Australia, Bangladesh, Burundi, Canada, Cambodia, Chad, Colombia, Croatia, Denmark, Djibouti, Ecuador, Ethiopia, France, Germany, Georgia, Guinea, Iran (Islamic Republic of), Italy, Kenya, Liberia, Namibia, Nepal, Netherlands (Kingdom of the), New Zealand, Nigeria, Norway, Pakistan, Republic of Korea, Rwanda, Serbia, Sweden, Switzerland, Tanzania, Thailand, Uganda, United Kingdom, USA, Yemen, Zambia)	Post	Substance use disorder

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Hou, 2020 (20)	Quant.	Refugees, migrants	Any age, from conflict-affected areas	Any (including Afghanistan, Bosnia and Herzegovina, Congo, Ethiopia, Iran (Islamic Republic of), Iraq, Myanmar, Nepal, Somalia, Syrian Arab Republic, Sudan, Viet Nam, former Yugoslavia, Zimbabwe)	Any (including Austria, Australia, Bangladesh, Belgium, Chad, Denmark, Finland, Germany, Ireland, Israel, Italy, Japan, Jordan, Nepal, Netherlands (Kingdom of the), Norway, South Africa, Sweden, Switzerland, Türkiye, United Kingdom, USA)	Post	Anxiety, depression, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Jannesari, 2020 (97)	Qual.	Asylum seekers	Adults	Any (Africa, Balkans, Middle East; Afghanistan, Cameroon, Democratic Republic of the Congo, Eritrea, Ethiopia, Iran (Islamic Republic of), Iraq, Lebanon, Nigeria, Sri Lanka, Sudan, Syrian Arab Republic, Türkiye, Zimbabwe)	Any (Australia, Germany, Ireland, Israel, Hong Kong SAR, Netherlands (Kingdom of the), Republic of Korea, Switzerland, United Kingdom, USA)	Post	Anxiety, depression, PTSD
Jannesari, 2021 (65)	Qual.	Asylum seekers	Adults	Any (Africa, Balkans, Middle East; Afghanistan, Cameroon, Democratic Republic of the Congo, Eritrea, Ethiopia, Iran (Islamic Republic of), Iraq, Lebanon, Nigeria, Sri Lanka, Sudan, Syrian Arab Republic, Türkiye, Zimbabwe)	Any (Australia, Germany, Hong Kong SAR, Ireland, Israel, Netherlands (Kingdom of the), Republic of Korea, Switzerland, United Kingdom, USA)	Post	Anxiety, depression, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Jurado, 2017 (107)	Quant.	Refugees, migrants, asylum seekers	Adults	Any (Caribbean, Latin America; Bangladesh, Cuba, Iran (Islamic Republic of), Iraq, Ireland, India, Mexico, Morocco, Pakistan, Poland, Puerto Rico, Somalia, former Soviet Union, Sri Lanka, Surinam, Thailand, Türkiye, USA, Viet Nam, former Yugoslavia)	Any (Austria, Australia, Brazil, China, Finland, Germany, Israel, Norway, Netherlands (Kingdom of the), Peru, Spain, Sweden, United Kingdom)	Post	Anxiety, depression, PTSD
Kjaergaard, 2018 (102)	Quant.	Asylum seekers	Any	Any (NR)	Europe (Denmark, Ireland, Netherlands (Kingdom of the))	Post	Behavioural disorder

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Mellor, 2021 (83)	Quant.	Refugees, asylum seekers, IDPs	Adults exposed to conflict and adversity	Any (Asia Pacific, Middle East; Algeria, Ethiopia, Iraq, Kuwait, Syrian Arab Republic, Uganda, occupied Palestinian territory, West Papua (Indonesia))	Any (Algeria, Egypt, Ethiopia, Kurdistan Region of Iraq, Kuwait, Lebanon, Netherlands (Kingdom of the), Norway, Papua New Guinea, Switzerland, Syrian Arab Republic, Uganda, USA, Occupied Palestinian territory)	Post	PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/ area, as per inclusion criteria (origin countries included in review)[c]	Destination region/ country/area	Stage of journey[d]	Mental health condition
Meyer, 2017 (98)	Quant.	Refugees, migrants, asylum seekers, IDPs	Adults	Any	LMICs (Brazil, China, India, Indonesia, Kazakhstan, Malaysia, Peru, Thailand)	Post	Anxiety, depression, substance use disorder, suicide & self-harm
Mitra, 2019 (99)	Quant.	Refugees	UASC (0–18 years)	Any (48 countries including in Africa, Asia, Europe (including the Balkans); mainly Afghanistan, Algeria, Angola, Iran (Islamic Republic of), Somalia, Sudan)	Any (Netherlands (Kingdom of the), Norway, United Kingdom, USA)	Post	Anxiety, depression, PTSD
Mohwinkel, 2018 (108)	Quant.	Refugees, asylum seekers	UASC	LMICs	Europe (Belgium, Netherlands (Kingdom of the), Norway, United Kingdom)	Post	Anxiety, behavioural disorder, depression, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Nilaweera, 2014 (58)	Both	Migrants	Perinatal women	Bangladesh, India, Pakistan, Sri Lanka	HICs	Post	Depression
O'Higgins, 2018 (109)	Quant.	Refugees	UASC	Any (NR)	HICs (NR)	Post	Anxiety, depression, PTSD
Pottie, 2015 (110)	Quant.	Migrants	Children & adolescents (10–19 years)	Any (diverse; not individually listed)	Any (France, Israel, Netherlands (Kingdom of the), USA)	Post	Depression, suicide & self-harm
Quosh, 2013 (81)	Both	Refugees, IDPs	Adult	Iraq, Syrian Arab Republic	Jordan, Lebanon, Syrian Arab Republic	Post	Anxiety, depression

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Reed, 2012 (68)	Quant.	Refugees, asylum seekers, IDP	Forcibly displaced children & adolescents (0–18 years)	Any (LMICs; Afghanistan, Bhutan, Bosnia and Herzegovina, Cambodia, Democratic Republic of the Congo, El Salvador, Eritrea, Guatemala, Iraq, Kosovo,[e] Namibia, Sudan, Autonomous region of Tibet (China), occupied Palestinian territory)	LMICs (Costa Rica, Honduras, India, Nepal, Nicaragua, Pakistan, Thailand, Türkiye, Uganda)	Post	Anxiety, behavioural disorder, depression, PTSD
Rezazadeh, 2018 (66)	Both	Migrants	Adult women	Any	Canada	Post	General mental health
Roozbeh, 2018 (70)	Quant.	Refugees, migrants	All	Afghanistan	Iran (Islamic Republic of)	Post	Anxiety, depression, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Scharpf, 2021 (90)	Quant.	Refugees, asylum seekers, IDPs	Children & adolescents (0–18 years)	Any (mainly Afghanistan, Algeria, Bosnia and Herzegovina, Congo, Democratic People's Republic of Korea, Eritrea, Iran (Islamic Republic of), Iraq, Myanmar, Russian Federation, Somalia, South Sudan, Syrian Arab Republic, occupied Palestinian territory)	Any (including Albania, Australia, Canada, Colombia, Denmark, Ethiopia, Germany, Italy, Jordan, Kosovo,[e] Lebanon, Netherlands (Kingdom of the), Norway, Republic of Korea, Russian Federation, Rwanda, Türkiye, Uganda, United Kingdom, USA)	Post	Anxiety, depression, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/ area, as per inclusion criteria (origin countries included in review)[c]	Destination region/ country/area	Stage of journey[d]	Mental health condition
Selten, 2020 (25)	Quant.	Migrants	All	Any (NR)	Any (including Australia, Canada, Denmark, France, Finland, Israel, Italy, Netherlands (Kingdom of the), Spain, Sweden, United Kingdom)	Post	Psychosis
Siriwardhana, 2014 (104)	Both	Refugees, migrants, asylum seekers, IDPs	Adults	Any	Any	Post	Anxiety, depression, PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Spallek, 2015 *(111)*	Quant.	Migrants, asylum seekers	Adults	Any (many, from different parts of the world)	Europe (Denmark Germany, Netherlands (Kingdom of the), Sweden, United Kingdom)	Post	Suicide & self-harm
Storm, 2013 *(105)*	Both	Refugees, asylum seekers	Adults who have experienced detention	Any (NR)	Any (NR)	Post	Anxiety, depression, PTSD, suicide & self-harm
Tam, 2017 *(112)*	Quant.	Refugees, asylum seekers	Children & adolescents (0–18 years)	Any	Any (Belgium, Netherlands (Kingdom of the), Sweden, USA; refugee camp on Iraq–Kurdish border)	Post	PTSD

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Vallejo-Martin, 2021 *(91)*	Quant.	Refugees, asylum seekers	Adolescent girls & women with a history of trauma	Any (including Afghanistan, Bosnia and Herzegovina, Burundi, Democratic Republic of Congo, Ethiopia, Ghana, Iran (Islamic Republic of), Iraq, Kosovo,[e] Malawi, Rwanda, Somalia, Sri Lanka, Syrian Arab Republic, Türkiye, Uganda, Zimbabwe)	Any (including Australia, Canada, Democratic Republic of Congo, Germany, South Africa, Türkiye, Uganda, USA)	Post	PTSD
van der Ven, 2016 *(113)*	Quant.	Migrants	Any	Algeria, Libya, Mauritania, Morocco, Tunisia	Europe (Belgium, France, Italy, Netherlands (Kingdom of the))	Post	Psychosis

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
von Werthern, 2018 (101)	Quant.	Refugees, migrants, asylum seekers	Any age, who have experienced detention	Any (over 58 countries represented, not individually listed)	Any (including Australia, Canada, Israel, Japan, Sweden, Switzerland, United Kingdom, USA)	Post	Anxiety, depression, PTSD
Wang, 2016 (95) (Mandarin)	Quant.	Migrants	Children of rural-to-urban migrant workers	China	China	Post	General mental health

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Wells, 2016 (62)	Both	Refugees	Adults	Syrian Arab Republic	Jordan	Post	General mental health
Witt, 2015 (56) (German)	Both	Refugees	UASC (0–18 years)	Any (including Afghanistan, Angola, Eritrea, Iran (Islamic Republic of), Somalia)	Any (NR)	Post	Anxiety, behavioural disorder, depression, PTSD
Wu, 2016 (82) (Mandarin)	Quant.	Migrants	Adult rural-to-urban migrant workers	China	China	Post	Anxiety, depression, psychosis

Table A1.2. contd

Study, by first author (publication language)[a]	Type of study included[b]	Category of migrant	Age group	Origin region/country/area, as per inclusion criteria (origin countries included in review)[c]	Destination region/country/area	Stage of journey[d]	Mental health condition
Yarwood, 2022 (59)	Both	Refugees, migrants, asylum seekers	Adult LGBTQI+	Any (Africa, Europe, Middle East)	Any (48 countries, not individually listed)	Transit	Anxiety, depression, PTSD
Yussuf, 2015 *(114)*	Quant.	Migrants	Adult women	Any (including Latin America; Republic of Korea, Türkiye)	Any	Post	Anxiety, depression
Zhang, 2013 (94) (Mandarin)	Quant.	Migrants	Children & adolescents	China	China	Post	General mental health

Notes: reference numbering in this table relate to the main reference list. HIC: high-income country; Hong Kong SAR: Hong Kong Special Administrative Region; NR: not reported; USA: United States of America.
[a] In English unless noted otherwise.
[b] Both: qualitative and quantitative; Qual.: qualitative; Quant.: quantitative.
[c] Countries of origin: the countries which systematic reviews set out to include are specified first, followed by the countries of origin of studies included in the final review (in parentheses).
[d] Pre: pre-migration; transit: in transit; post: post-migration.
[e] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

Data synthesis

Findings for risk and protective factors were narratively synthesized according to the conceptual framework in the following themes: demographic, sociocultural, economic, health-related, community-level and environmental determinants. Within these, findings were reported separately for refugees, migrants, asylum seekers and IDPs (as far as possible). Findings related to facilitators and barriers to mental health care were reported according to the components of the Penchansky & Thomas model of access by integrating the results from the umbrella (addressing policy question 2) and systematic (addressing policy question 3) reviews. Where the evidence was sufficient, findings were reported by specific subgroup (international migrant, refugee, asylum seeker, IDP), age group, type of mental disorder and stage of the migration journey. Drafts were reviewed by the Interdivisional Working Group and submitted for external peer review, according to the structured, standardized process for GEHM reviews. Policy considerations were developed based on the themes and findings emerging from the review, with input from the Interdivisional Working Group and an advisory panel of experts.

Case studies

Searches were conducted to identify case studies of good practices related to research on risk and protective factors for mental health and to accessible mental health services for refugees and migrants. Efforts were made to identify case studies from LMICs because these countries were underrepresented among the globally available evidence. The case studies were identified through (i) targeted searches of grey and peer-reviewed literature using customized search strategies; (ii) use of a standardized questionnaire to ask WHO regional offices to suggest local case studies; and (iii) approaches made to research and nongovernmental organizations from contacts within the research team's international professional network. Through discussion within the research team, five case studies that met the inclusion criteria were selected for inclusion in the report. They were selected to highlight a diverse range of geographical settings, population groups and types of mental health service.

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[1] *All URLs were accessed 27 February 2023.*

Annex 2. Critical appraisal of the included studies[2]

The quality of all systematic reviews included in the umbrella review was appraised using the Joanna Briggs Institute Critical Appraisal Checklist for Systematic Reviews *(150)*; for the systematic review, the Newcastle–Ottawa Scale was used to appraise quantitative studies *(151)*, the Critical Appraisal Skills Programme was used to appraise qualitative studies *(152)*, and the Mixed Methods Appraisal Tool was used to appraise mixed-methods studies *(153)*.

Table A2.1 shows the quality assessment of the 88 systematic reviews included in the umbrella review. The quality was variable, with only one review fulfilling all 11 quality criteria. Areas of concern were related to the following questions: Was the likelihood of publication bias assessed? (adequate in 14 reviews; not applicable in 12 reviews); Was critical appraisal conducted by two or more reviewers independently? (adequate in only 29 reviews), and Were there methods to minimize errors in data extraction? (adequate in only 40 reviews).

Tables A2.2–A2.4 show the quality assessment of the studies included in the systematic review of COVID-19 studies. The studies were generally of high quality. The domains in which they tended to score poorly were consideration of the researcher–participant relationship (adequate in one of the three qualitative studies), use of sufficiently rigorous methods of data analysis (adequate in two of the three qualitative studies), the effective integration of components (adequate in two of the three mixed-methods studies) and the adequate interpretation of components (adequate in two of the three mixed-methods studies). Among the quantitative studies, the aspects with the poorest scores were for the assessment of non-respondents and the comparability of participants (i.e. appropriately controlling for important factors).

[2] *Reference citations refer to the main reference list.*

Table A2.1. Quality of systematic reviews included in the umbrella review

Study (by first author)	1. Is the review question clearly and explicitly stated?	2. Were the inclusion criteria appropriate for the review question?	3. Was the search strategy appropriate?	4. Were the sources and resources used to search for studies adequate?	5. Were the criteria for appraising studies appropriate?
Aghajafari, 2020 (69)	Yes	Yes	Yes	Yes	Yes
Ahn 2018 (100)	Yes	Yes	Yes	Yes	Yes
Alduraidi, 2021 (115)	Yes	Unclear	Unclear	Yes	No
Alsharaydeh, 2019 (130)	Yes	Yes	Yes	Yes	Yes
Anderson, 2017 (28)	Yes	Yes	Yes	Yes	Yes
Anderson, 2020 (71)	Yes	Yes	Yes	Yes	Yes
Antunes, 2017 (57)	Yes	Unclear	Unclear	No	Unclear
Arakelyan, 2021 (86)	Unclear	Yes	Yes	Yes	No
Bamford, 2021 (67)	Yes	Yes	Yes	Yes	Yes
Bogic, 2015 (87)	Yes	Yes	Yes	Yes	Yes
Bozorgmehr 2016 (131)	Yes	Yes	Yes	Yes	Yes
Bulik, 2019 (61)	Yes	Yes	Yes	No	Yes
Byrow, 2020 (64)	Yes	Yes	Yes	Yes	Yes
Chen, 2019 (89)	Yes	Yes	Yes	Yes	Yes
Close, 2016 (84)	Yes	Yes	Yes	Yes	Yes
Colucci, 2014 (116)	Yes	Yes	Yes	Yes	Unclear
Curtis, 2018 (77)	Yes	Yes	Yes	Unclear	Yes
Dapunt, 2017 (80)	Yes	Yes	Yes	No	Yes
Demazure, 2022 (132)	Yes	Yes	Yes	Yes	Yes
Derr 2016, (124)	Yes	Yes	Unclear	Yes	No

6. Was critical appraisal conducted by two or more reviewers independently?	7. Were there methods to minimize errors in data extraction?	8. Were the methods used to combine studies appropriate?	9. Was the likelihood of publication bias assessed?	10. Were recommendations for policy and practice supported by the reported data?	11. Were the specific directives for new research appropriate?
Yes	Yes	Yes	No	Yes	Yes
Yes	Yes	Yes	No	Yes	Yes
No	No	Unclear	Unclear	Unclear	Unclear
No	Yes	Yes	No	Yes	Yes
Yes	Yes	Yes	No	Yes	Yes
Yes	Yes	Yes	Yes	Unclear	Yes
Unclear	Unclear	Yes	NA	Yes	Yes
Unclear	No	Yes	No	Yes	Yes
Unclear	Unclear	Yes	No	Yes	Yes
Unclear	Yes	Yes	Yes	Yes	Yes
No	Yes	Yes	No	Yes	Yes
Unclear	No	Yes	NA	Yes	Yes
No	Yes	Yes	No	Yes	Yes
Yes	Unclear	Unclear	No	Yes	Yes
Yes	Yes	Yes	No	Yes	Yes
Unclear	No	Unclear	No	Yes	Yes
Unclear	Unclear	Yes	No	Yes	Yes
No	No	Yes	No	Yes	Yes
Yes	Unclear	Unclear	NA	Yes	Yes
No	Unclear	Yes	No	Yes	Yes

Table A2.1. contd

Study	1. Is the review question clearly and explicitly stated?	2. Were the inclusion criteria appropriate for the review question?	3. Was the search strategy appropriate?	4. Were the sources and resources used to search for studies adequate?	5. Were the criteria for appraising studies appropriate?
Due, 2020 (125)	Yes	Yes	Yes	Yes	Yes
Edwards, 2019 (72)	Unclear	Yes	Yes	Yes	Yes
Falah-Hassani, 2015 (79)	Yes	Yes	Yes	Yes	Yes
Farahani, 2021 (75)	Yes	Yes	Yes	Yes	Yes
Fazel, 2012 (27)	Yes	Yes	Yes	Yes	Unclear
Fellmeth, 2017 (74)	Yes	Yes	Yes	Yes	Yes
Garcini, 2016 (93)	Yes	Yes	Yes	Yes	No
Gargiulo, 2021 (78)	Yes	Yes	Yes	Yes	No
Giacco, 2019 (92)	Yes	Yes	Unclear	No	No
Gruner, 2020 (127)	Yes	No	Unclear	Yes	Yes
Guo, 2018 (106)	Yes	Yes	Yes	Yes	No
Hajak, 2021 (96)	Yes	Yes	Yes	Unclear	Yes
Hasan, 2021 (73)	Yes	Yes	Yes	Yes	Yes
Hassan, 2016 (63)	Yes	No	Unclear	Unclear	No
Hawkes, 2021 (60)	Yes	Yes	Yes	Yes	Yes
Hendrickx, 2020 (55)	Yes	Yes	Yes	Yes	Yes
Henkelmann, 2020 (103)	Yes	Yes	Yes	Yes	Yes
Heslehurst, 2018 (88)	No	Yes	Yes	Yes	Yes
Hohne, 2020 (76)	Unclear	Yes	Unclear	Yes	Yes
Horyniak, 2016 (85)	Yes	Yes	Yes	Yes	Yes
Hou, 2020 (20)	Yes	Yes	Yes	Yes	Yes

6. Was critical appraisal conducted by two or more reviewers independently?	7. Were there methods to minimize errors in data extraction?	8. Were the methods used to combine studies appropriate?	9. Was the likelihood of publication bias assessed?	10. Were recommendations for policy and practice supported by the reported data?	11. Were the specific directives for new research appropriate?
Unclear	Unclear	Yes	No	Yes	Yes
Yes	Yes	Unclear	Yes	Yes	Yes
Yes	No	Yes	Yes	No	Yes
Yes	Yes	Yes	No	Yes	Yes
Unclear	Unclear	Yes	Unclear	Yes	Yes
Yes	No	Yes	Yes	Yes	Yes
No	Yes	Yes	No	Yes	Yes
No	No	No	No	No	Yes
No	No	Yes	No	Yes	Yes
Yes	Yes	Unclear	NA	Unclear	Unclear
No	Yes	No	No	Yes	Yes
No	No	Yes	No	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Unclear	Unclear	Yes	Unclear	Yes	Yes
Unclear	No	Yes	No	Yes	Yes
No	Yes	Yes	No	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	NA	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	No	Yes	Yes
Unclear	Yes	Yes	Yes	Yes	Unclear

Table A2.1. contd

Study	1. Is the review question clearly and explicitly stated?	2. Were the inclusion criteria appropriate for the review question?	3. Was the search strategy appropriate?	4. Were the sources and resources used to search for studies adequate?	5. Were the criteria for appraising studies appropriate?
Jannesari, 2020 (97)	No	Yes	Yes	Yes	No
Jannesari, 2021 (65)	Unclear	Yes	Yes	Yes	Yes
Jurado, 2017 (107)	Yes	Yes	Yes	Unclear	No
Karageorge, 2017 (120)	Yes	Yes	No	Unclear	Yes
Kavukcu, 2019 (123)	Unclear	Unclear	Yes	Yes	Unclear
Kjaergaard, 2018 (102)	Unclear	No	Yes	Unclear	No
Lorenz, 2021 (117)	Yes	Yes	Yes	No	No
Mellor, 2021 (83)	Unclear	Yes	Yes	Yes	Yes
Meyer, 2017 (98)	No	Yes	Unclear	Yes	Yes
Mitra, 2019 (99)	No	Yes	Unclear	Yes	Yes
Mohwinkel, 2018 (111)	Unclear	Yes	Yes	Yes	Yes
Nilaweera, 2014 (58)	Yes	Unclear	Yes	Yes	No
O'Higgins, 2018 (109)	Yes	Yes	Yes	Yes	Yes
Penuela-O'Brien, 2022 (119)	Yes	Unclear	Yes	Yes	Yes
Place, 2021 (121)	Yes	Yes	Yes	Yes	Yes
Pottie, 2015 (110)	Yes	Yes	Yes	Yes	Yes
Quosh, 2013 (81)	Yes	No	Yes	Yes	No
Reed, 2012 (68)	Yes	Yes	Yes	Yes	Unclear
Rezazadeh, 2018 (66)	Yes	Yes	Yes	Yes	No
Roozbeh, 2018 (70)	Yes	Unclear	Yes	Yes	No

6. Was critical appraisal conducted by two or more reviewers independently?	7. Were there methods to minimize errors in data extraction?	8. Were the methods used to combine studies appropriate?	9. Was the likelihood of publication bias assessed?	10. Were recommendations for policy and practice supported by the reported data?	11. Were the specific directives for new research appropriate?
No	Unclear	Yes	No	Yes	Yes
Unclear	Yes	Yes	NA	Yes	Yes
No	Unclear	Yes	No	Unclear	Unclear
Yes	Yes	Yes	NA	Yes	Unclear
No	Yes	Unclear	NA	Yes	Yes
No	Unclear	Yes	No	Yes	Yes
No	No	Yes	No	Yes	Yes
Yes	No	Yes	Yes	Yes	Yes
Yes	Yes	Unclear	No	Yes	Yes
Unclear	Unclear	Unclear	No	Yes	Yes
Yes	Yes	Yes	Unclear	Unclear	Yes
No	No	Yes	No	Yes	Yes
Unclear	Unclear	Yes	No	Yes	Yes
Yes	Yes	Yes	NA	Yes	Yes
Unclear	Yes	Yes	NA	Yes	Yes
Yes	Yes	Yes	NA	Yes	Yes
No	No	Yes	No	Yes	Yes
Unclear	Unclear	Yes	Unclear	Yes	Yes
No	Unclear	Yes	No	Yes	Yes
No	Unclear	Yes	No	Yes	Unclear

Table A2.1. contd

Study	1. Is the review question clearly and explicitly stated?	2. Were the inclusion criteria appropriate for the review question?	3. Was the search strategy appropriate?	4. Were the sources and resources used to search for studies adequate?	5. Were the criteria for appraising studies appropriate?
Sacha, 2021 (128)	Yes	Yes	Yes	Yes	Yes
Satinsky, 2019 (122)	Yes	Yes	Yes	Yes	Yes
Scharpf, 2021 (90)	Yes	Yes	Yes	Yes	Yes
Selkirk, 2014 (133)	Yes	Yes	Yes	Yes	Yes
Selten, 2020 (25)	Yes	Yes	Unclear	Unclear	Yes
Semmlinger, 2021 (129)	Yes	Yes	Yes	Yes	Yes
SH-CAPAC Project, 2016 (138)	Yes	Yes	Unclear	Yes	No
Siriwardhana, 2014 (104)	Yes	Yes	Yes	Yes	No
Spallek, 2015 (111)	Yes	No	Yes	No	No
Storm, 2013 (105)	Yes	Yes	Yes	Yes	No
Tam, 2017 (112)	Yes	Yes	Yes	Yes	Yes
Tay 2019 (126)	Yes	Unclear	Yes	Yes	No
Turrini 2021 (136)	Yes	Yes	Yes	Yes	Yes
Vallejo-Martin, 2021 (91)	Yes	Yes	Yes	Yes	Unclear
van der Boor, 2020 (135)	Yes	Yes	Yes	Yes	Yes
van der Ven, 2016 (113)	Yes	Yes	Yes	Yes	Unclear
van Os 2020 (134)	Unclear	Yes	Yes	Yes	Unclear
Vernice 2020 (137)	No	Unclear	Yes	Yes	Unclear
von Werthern, 2018 (101)	Yes	Yes	Yes	Yes	Yes

6. Was critical appraisal conducted by two or more reviewers independently?	7. Were there methods to minimize errors in data extraction?	8. Were the methods used to combine studies appropriate?	9. Was the likelihood of publication bias assessed?	10. Were recommendations for policy and practice supported by the reported data?	11. Were the specific directives for new research appropriate?
Yes	Yes	Yes	Unclear	Yes	Yes
Unclear	Yes	Yes	No	Yes	Yes
Yes	Unclear	Yes	No	Yes	Yes
Unclear	Unclear	Yes	No	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
No	Yes	Yes	No	Yes	Yes
Unclear	Unclear	Yes	No	Yes	Yes
No	No	Yes	No	Yes	Yes
No	Yes	Yes	No	Yes	Yes
Unclear	Unclear	Yes	No	Yes	Yes
No	No	Yes	No	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Unclear	Unclear	Yes	No	Yes	Yes
No	Yes	Yes	NA	Yes	Yes
Unclear	Unclear	Yes	Yes	No	No
Unclear	No	Yes	NA	Yes	Yes
No	Yes	Unclear	No	Yes	Unclear
Yes	Yes	Yes	No	Yes	Yes

Table A2.1. contd

Study	1. Is the review question clearly and explicitly stated?	2. Were the inclusion criteria appropriate for the review question?	3. Was the search strategy appropriate?	4. Were the sources and resources used to search for studies adequate?	5. Were the criteria for appraising studies appropriate?
Wang, 2016 (95)	Yes	Unclear	Yes	Yes	Unclear
Wells, 2016 (62)	Yes	Yes	Yes	Yes	Yes
Witt, 2015 (56)	Yes	Yes	Yes	Yes	No
Wohler, 2017 (118)	No	Unclear	Unclear	Yes	Yes
Wu, 2016 (82)	Yes	Yes	Yes	Yes	Unclear
Yarwood, 2022 (59)	Yes	Yes	Yes	Yes	Yes
Yussuf, 2015 (114)	Yes	Yes	Yes	Yes	No
Zhang, 2013 (94)	Unclear	Yes	Unclear	Yes	Unclear

Notes: NA: not applicable. Assessed using the Joanna Briggs Institute Critical Appraisal Checklist *(150)*.

Table A2.2. Quality of quantitative studies included in the systematic review

Study ID (reference by first author)	Representative sample (max 1)	Sample size (max 1)	Non-respondents (max 1)	Ascertainment of exposure (max 2)
Behisi 2021 (148)	1	1	0	2
Etowa 2021 (141)	1	1	0	1
Masai 2021 (149)	1	1	0	2
Serafini 2021 (142)	1	1	0	2
Unver 2022 (144)	1	1	0	0

Notes: max: maximum. Assessed using the Newcastle–Ottawa Scale *(151)*.

6. Was critical appraisal conducted by two or more reviewers independently?	7. Were there methods to minimize errors in data extraction?	8. Were the methods used to combine studies appropriate?	9. Was the likelihood of publication bias assessed?	10. Were recommendations for policy and practice supported by the reported data?	11. Were the specific directives for new research appropriate?
Unclear	No	No	No	No	Yes
Unclear	Yes	Yes	No	Yes	Yes
No	No	Yes	No	Yes	Yes
Unclear	Unclear	Yes	No	Yes	Yes
Unclear	No	No	No	Yes	Yes
Unclear	Unclear	Yes	No	Yes	Yes
No	No	No	No	No	Yes
Unclear	No	No	No	No	Yes

Comparability (max 2)	Outcome assessment (max 2)	Statistical test (max 1)	Total score (max 10)
0	1	1	6
1	1	1	6
0	1	1	6
0	1	1	6
0	2	1	5

Table A2.3. Quality of qualitative studies included in the systematic review

Study ID (reference by first author)	Clear statement of aims	Qualitative methodology appropriate	Research design appropriate for aims	Recruitment strategy appropriate for aims
Bojórquez 2021 (139)	Yes	Yes	Yes	Yes
Fauk 2021 (147)	Yes	Yes	Yes	Yes
Rocha 2021 (145)	Yes	Yes	Yes	Yes

Notes: green: low risk of bias; orange: unclear risk of bias. Assessed using Critical Appraisal Skills Programme (152).

Table A2.4. Quality of mixed-methods studies included in the systematic review

Study ID (reference by first author)	Clear research question	Data addresses research question	Adequate rationale for mixed methods	Components effectively integrated
Disney 2021 (143)	Yes	Yes	Yes	Unclear
Im 2022 (140)	Yes	Yes	Yes	Yes
Rosenberg 2022 (146)	Yes	Yes	Yes	Yes

Notes: green: low risk of bias; orange: unclear risk of bias. Assessed using the Mixed Methods Appraisal Tool (153).

Data collected in way that addressed issue	Researcher-participant relationship considered	Ethical issues considered	Data analysis sufficiently rigorous	Clear statement of findings
Yes	Unclear	Yes	Unclear	Yes
Yes	Unclear	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes

Components adequately interpreted	Divergence between results addressed	Components adhere to quality criteria
Unclear	Yes	Yes
Yes	Yes	Yes
Yes	Yes	Yes

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