RESEARCH ARTICLE

Health system responsiveness to the mental health needs of Syrian refugees: mixed-methods rapid appraisals in eight host countries in Europe and the Middle East [version 1; peer review: 2 approved with reservations]

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Abstract

Background: Syrian refugees have a high burden of mental health symptoms and face challenges in accessing mental health and psychosocial support (MHPSS). This study assesses health system responsiveness (HSR) to the MHPSS needs of Syrian refugees,

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comparing countries in Europe and the Middle East to inform recommendations for strengthening MHPSS systems.
Methods: A mixed-methods rapid appraisal methodology guided by an adapted WHO Health System Framework was used to assess HSR in eight countries (Egypt, Germany, Jordan, Lebanon, Netherlands, Sweden, Switzerland, and Türkiye). Quantitative and qualitative analysis of primary and secondary data was used. Data collection and analysis were performed iteratively by multiple researchers. Country reports were used for comparative analysis and synthesis.
Results: We found numerous constraints in HSR: i) Too few appropriate mental health providers and services; ii) Travel-related barriers impeding access to services, widening rural-urban inequalities in the distribution of mental health workers; iii) Cultural, language, and knowledge-related barriers to timely care likely caused by insufficient numbers of culturally sensitive providers, costs of professional interpreters, somatic presentations of distress by Syrian refugees, limited mental health awareness, and stigma associated to mental illness; iv) High out-of-pocket costs for psychological treatment and transportation to services reducing affordability, particularly in middle-income countries; v) Long waiting times for specialist mental health services; vi) Information gaps on the mental health needs of refugees and responsiveness of MHPSS systems in all countries. Six recommendations are provided.
Conclusions: All eight host countries struggle to provide responsive MHPSS to Syrian refugees. Strengthening the mental health workforce (in terms of quantity, quality, diversity, and distribution) is urgently needed to enable Syrian refugees to receive culturally appropriate and timely care and improve mental health outcomes. Increased financial investment in mental health and improved health information systems are crucial.

Keywords
health system responsiveness, mental health, Syrian refugees, Europe, Middle East, comparative study, access, quality

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Plain language summary

Background

People who experience war often have increased mental health problems. Those who are forced to flee abroad frequently struggle to access adequate mental health and psychosocial support services. As a result, many refugees often do not seek or use such services.

Researchers of the Syrian REfuGees MeNTal HealTH Care Systems (STRENGTHS) consortium carried out rapid appraisals to assess the responsiveness of health systems to the mental health and psychosocial needs of Syrian refugees in eight countries: Egypt, Germany, Jordan, Lebanon, the Netherlands, Sweden, Switzerland, and Türkiye. They used quantitative and qualitative data, including primary and secondary data. This paper summarises and compares findings from the eight countries.

What is health system responsiveness?

The ability of a health system to meet the expectations and needs of its people with regards to access, coverage, quality, and safety of services.

What are our main findings and recommendations?

We found that all eight host countries struggle to provide responsive mental health and psychosocial support to Syrian refugees. We identified the following key challenges:

- Insufficient mental health providers and services, including uneven rural-urban distribution;
- Cultural, language, and knowledge-related barriers to timely care, caused by insufficient culturally sensitive providers and mental health stigma among Syrian refugee communities;
- Out-of-pocket costs for psychological treatment and transportation to services;
- Long waiting times for specialist mental health services;
- Information gaps on the mental health needs of Syrian refugees;

We recommend increasing national funding for mental health to help Syrian refugees to receive more culturally appropriate and timely care. Increased funding can reduce out-of-pocket payments by refugees, improve national health information systems, and strengthen the mental health workforce (in terms of quantity, quality, diversity, and distribution). We also recommend investment in cultural competency and mental health training for community-based workers and primary care providers.

List of abbreviations

FGD: focus group discussion

HIC: high-income country

HSR: Health system responsiveness

MIC: middle-income country

mhGAP: Mental Health Gap Action Programme

MHPSS: mental health and psychosocial support

NGO: non-governmental organisation

PHC: primary healthcare

PTSD: post-traumatic stress disorder

RCT: randomised controlled trial

STRENGTHS: Syrian REfuGees MeNTal HealTH Care Systems

UNHCR: United Nations High Commissioner for Refugees

WHO: World Health Organization

Introduction

The United Nations High Commissioner for Refugees (UNHCR) estimated that 89.3 million people worldwide were forcibly displaced in 2021, including 27.1 million refugees and 4.6 million asylum seekers[1]. Forcibly displaced populations bear a high burden of anxiety, depression, and post-traumatic stress disorder (PTSD)[2–5]. Refugees' experiences of war and violence render them at risk of developing mental disorders, exacerbated by post-displacement stressors like poverty, inadequate accommodation, discrimination, social isolation, insecurity, and uncertainty about, for example, legal status, and potential for family reunification[6–8].

Despite having high needs for mental health care, refugee populations have low utilisation of mental health and psychosocial support (MHPSS)[9,10]. MHPSS is defined as any type of external support that aims to protect or promote psychosocial well-being and/or prevent or treat mental disorders[11]. It covers a broad range of services from diverse providers, including mental health specialists (e.g. psychiatrists, and psychotherapists) and non-specialists (e.g. community workers, social workers, and lay health workers). Previous research has found low uptake of MHPSS by refugees, who experience difficulties in accessing services because of stigma, unfamiliar language, low levels of trust, limited financial resources, and inadequate knowledge about where to seek support, as well as unavailability of relevant effective services[9,12–15]. Their experiences point to major weaknesses in health system responsiveness (HSR) to the mental health needs of refugees.

There are several definitions of HSR, although there is a consensus that it involves not just the system's capacity and ability to respond but also its actual response[16]. The WHO conceptualisation of HSR is widely used[16,17] and concerns the health system's ability to meet the population's legitimate expectations regarding non-medical aspects of their interactions with the system[18]. These aspects include patient experiences with the choice of health providers, quality of amenities, and whether they are treated with dignity and confidentiality[18]. Responsiveness is a complex construct and overlaps with elements of quality of care, coverage, access to care, equity in access, and patient satisfaction[19,20]. Individual expectations and experiences

of the system shape perceived HSR, and consequently health behaviours and outcomes. Responsiveness is considered important for strengthening health system functioning, providing equitable and accountable services, and protecting the rights of citizens[16]. A recent mapping found an increasing volume of research on HSR in the last decade, but also significant gaps in knowledge of how it is experienced by vulnerable groups (e.g. refugees)[16].

The Syrian REfuGees MeNTal HealTH Care Systems (STRENGTHS) study aims to strengthen mental health systems for Syrian refugees in Europe and the Middle East[21] and includes, among others, randomized controlled trials (RCT) of MHPSS interventions developed by the World Health Organization (WHO) and informed by consultations with affected populations. Syrians represent the largest refugee population globally, with 6.8 million hosted in 129 countries[1]. The majority of Syrian refugees are based in neighbouring countries (i.e. Türkiye, Jordan, and Lebanon), but many have also sought refuge in high-income European countries, particularly Germany[1]. The scope and protracted nature of the Syrian displacement has put pressure on the MHPSS systems of host countries, which can be expected to challenge responsiveness. The purpose of this paper is to assess HSR to the MHPSS needs of Syrian refugees, comparing countries in Europe and the Middle East to inform recommendations to strengthen MHPSS systems.

Methods

Study design and settings

We employed a rapid appraisal methodology to assess HSR to the MHPSS needs of Syrian refugees in all eight countries participating in the STRENGTHS study: Egypt, Germany, Jordan, Lebanon, the Netherlands, Sweden, Switzerland, and Türkiye. These countries collectively host 91% of the global Syrian refugee population (6.2 out of 6.8 million)[22].

Rapid appraisals are a pragmatic and systematic way to collect data across a range of health system domains in a feasible, timely and low-cost manner[23,24]. They are typically conducted by a small team (of two or more individuals) and triangulate data collected using a variety of methods and adopting different perspectives to identify key themes and areas of concern[23,25]. Rapid appraisals allow for selecting and combining primary and secondary data according to its relevance to the research objectives and context.

The multi-country rapid appraisal approach is appropriate for the STRENGTHS project, as an improved understanding of responsiveness of current health systems will inform decisions on ways to strengthen systems, for example, by integrating scalable psychological interventions[21]. Multi-country studies give an insight into commonalities and differences across diverse contexts.

Conceptual framework

Our conceptual framework is set out in Figure 1. Details are published elsewhere[26] and can be found in Supplementary File 1 in the *Extended data*[27]. In brief, it is based on WHO definitions of a health system, its building blocks, and HSR[18,28] and domains identified in reviews on HSR[17,19]. While the WHO framework posits HSR as a final goal, in our framework HSR is an intermediate goal, with improved health outcomes positioned as final goals (see Figure 1). This is because the

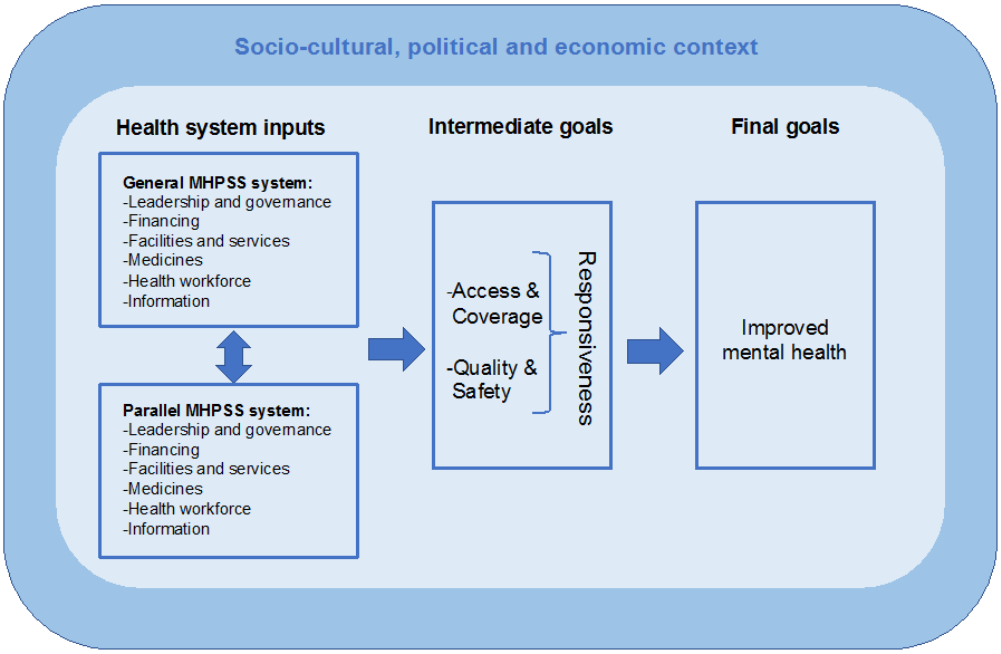

Figure 1. Conceptual framework on MHPSS system responsiveness to refugees' needs, adapted from Fuhr, Roberts[26].

intermediate health goals defined by WHO (i.e. access, coverage, quality, and safety) interrelate with their eight domains of responsiveness (i.e. autonomy, choice, communication, confidentiality, dignity, quality of amenities, prompt attention, access to family and community support)[26,29]. Therefore we have used the intermediate goals as proxy measures for HSR. Definitions of the intermediate goals are found in Table 1.

The MHPSS system for refugees consists of two dominant subsystems: i) the 'general MHPSS system', which is commonly state governed and funded, and accessible to all citizens, including refugees with certain immigration statuses; and ii) the 'parallel MHPSS system', which is commonly run by non-governmental organisations (NGOs), civil society, and community groups and funded by UN organisations or from humanitarian budgets of donor countries. These parallel systems supplement care for vulnerable groups like refugees who are not (entirely) covered by or able to access the general MHPSS system. The type of MHPSS care provided in parallel systems is predominantly psychosocial support provided by non-specialists rather than specialist mental health services, which health professionals in the general system mainly provide. We recognise that in many contexts the MHPSS system is more complex. For example, in some countries there may be an overlap and linkages between these two subsystems, for example via referral pathways, while in other countries the private sector plays a large role in the health system[30]. We applied the simplified framework to this comparative rapid appraisal.

Data collection

In line with other rapid appraisals, a mixed-methods approach was used, with four different elements that used quantitative and qualitative methods, detailed below. Data collection and analysis was done iteratively by multiple team members, including local research partners. Supplementary File 2 in the *Extended data* gives an overview of all partner organisations and local ethical approvals[27].

i. Structured literature reviews

Literature reviews were conducted for all eight countries. Selected databases and grey literature sources were searched for relevant qualitative and quantitative studies published between Jan 2011 and Sept 2021. Eligibility criteria and search terms are presented in Supplementary File 3, *Extended data*[27]. Database searches were conducted in English, with support from Endnote 20, and some grey literature searches in local languages (i.e. Dutch, German). Data from eligible studies was extracted and tabulated, listing source background (i.e. author, year, study country, objective, methods), summary of findings relevant to system responsiveness, and study population (i.e. refugees in general/asylum seekers/national population, country of origin, age). In total 436 studies were included in the literature reviews, covering single and multi-country studies. Most were conducted in Germany (n=135), followed by Jordan (n=94), Türkiye (n=52), the Netherlands (n=50), Sweden (n=50), Lebanon (n=49), Switzerland (n=27), and Egypt (n=13). A list of published sources, country level documents on specific indicators, and

Table 1. Definitions of intermediate health goals.

Goals	Definitions
Access and coverage (seven elements)	*i) Availability* – the volume (coverage) and type of existing services and whether this is adequate for the volume and needs of services users[31].
	ii) Accessibility – the relationship between the location of the services and the location of the people in need of them (e.g. transportation, travel time, distance, and cost)[31].
	iii) Accommodation – the relationship between the organisation of resources (appointment systems, hours of operation, walk-in facilities) and the ability of service users to accommodate to these factors[31].
	iv) Affordability – the prices of services in relation to the income of service users[31].
	v) Acceptability – the relationship of attitudes of service users about personal and practice characteristics of services to the actual characteristics of the existing services, including providers attitudes about acceptable personal characteristics of service users[31].
	vi) Awareness of mental health and information about available MHPSS services.
	vii) Stigma towards mental health and seeking MHPSS services, with stigma defined as the co-occurrence of labelling, stereotyping, separation, status loss, and discrimination in a context in which power is exercised[32].
Quality	The scope of care (and quantity) which is provided to the patient (i.e. the amount of care necessary to achieve a desired treatment outcome); the clinical quality of the service provided to the patients (e.g. cleanliness of the facility, skills and decision-making of the provider, equipment and supplies); service quality and acceptability of the service (e.g. convenience, interpersonal relationships)[33].
Safety	The degree to which healthcare processes avoid, prevent and ameliorate adverse outcomes or injuries that stem from the processes of healthcare itself[34].

narrative reports on all countries are available on the STRENGTHS website. Supplementary File 4 in the *Extended data* contains all data extraction variables for the literature reviews[27].

ii. MHPSS system indicators

Additionally, we searched selected websites and databases to obtain indicators covering general and parallel MHPSS systems (see Supplementary File 3 in the *Extended data* for data sources[27]). Indicators were derived based on the conceptual framework presented in Figure 1, and the Penchansky and Thomas[31] framework (Box 1). Supplementary File 5 in the *Extended data* shows the entire list of indicators[27]. Relevant information was extracted and tabulated. If particular items of information could not be found, a search was conducted by local partners and, if not found, it was listed as 'unknown'.

iii. Qualitative interviews

Qualitative interviews conducted in other components of the STRENGTHS project in the study countries were reanalysed for findings relevant to our study objectives. They included individual semi-structured interviews and focus group discussions (FGDs) with MHPSS providers, key-informants, and Syrian refugees. They had been conducted for three purposes: formative research for cultural adaptation of scalable psychological interventions; process evaluations of pilot and definitive RCTs of the psychological interventions; and scalability assessments of the psychological interventions. MHPSS providers and key informants were purposively sampled to include people from a variety of backgrounds and expertise. MHPSS providers included psychologists, psychiatrists, primary care providers, social workers and nurses working in mental health. Key informants included researchers, NGO workers, policy makers and advisors. Syrian refugees included a mix of those who had used MHPSS services before and those who had not. Syrian refugees interviewed were predominantly recruited from the STRENGTHS' RCTs (Table 2). In total 228 interviews with individuals were included in the analysis. Additionally, summaries of FGDs with Syrian refugees were included in Jordan (12 groups; n=72), the Netherlands (4 groups; n=14), and Switzerland (2 groups; n=20). All qualitative data was collected between May 2017 and October 2021.

iv. MHPSS access surveys

We also drew on data on previous utilisation of mental health care collected in the STRENGTHS project as part of the baseline for the RCT in Egypt (n=322), Germany (n=364), Lebanon (n=232), the Netherlands (n=206, Sweden (n=117), Switzerland (n=59), and Türkiye (n=368). Data for Jordan could not be used due to a data collection problem. In Egypt, Germany, the Netherlands, Sweden and Switzerland, the respondents were adult Syrian refugee women and men enrolled in the study with high levels of psychological distress (scoring above 15 on the 10-item Kessler Psychological Distress Scale (K10)) and functional impairment (scoring above 16 on the WHO Disability Assessment Schedule 2.0 (WHODAS 2.0)). For Lebanon, participants were official caregivers of children scoring 12 or above on the 17-item Paediatric Symptom Checklist. The respondents were asked whether they had experienced feelings such as anxiety, nervousness, depression, insomnia or any other emotional or behavioural problems since their displacement (and prior to their enrolment in the STRENGTHS RCT). If they had experienced these feelings, they were asked whether they had sought care for these feelings. Further details are available elsewhere[35,36].

Ethics approval

Ethical approval for primary data collection (i.e. qualitative interviews, MHPSS access surveys) was provided by the Ethics Committee of the London School of Hygiene & Tropical Medicine (14330 -1) in the UK. Additionally, local ethical approval was sought by STRENGTHS partners in all study countries and granted by local ethics boards (see Supplementary File 2 in the *Extended data*[27]). All respondents in primary data collection gave written informed consent. Data protection, sharing, and confidentiality measures were in place.

Table 2. Individual interviews by type of respondent and country.

Country	Sample	MHPSS provider (PR)	Key informant (KI)	Syrian refugees (SR)	Total
Egypt		1	5	40	**46**
Germany		9	9	10	**27**
Jordan		14	7	15	**36**
Lebanon		3	0	0	**3**
Netherlands		36	17	22	**75**
Sweden		4	9	7	**13**
Switzerland		5	5	4	**14**
Türkiye		7	7	0	**14**
Total		**79**	**59**	**57**	**228**

Data analysis and synthesis

Primary and secondary data were extracted and analysed according to the MHPSS responsiveness conceptual framework (Figure 1)[26]. Quantitative primary data was analysed with Stata SE 17.0 and qualitative primary data was analysed with NVivo 12.6.1 and Atlas. TI 22.0.1. Since the interviews were collected primarily for other purposes, only units of data relevant to our conceptual framework were deductively coded and included in country reports. Preliminary findings were presented in country reports using a systematic narrative approach, structured according to our conceptual framework, and updated three times during the project (2017–2021). Several quality assurance processes were in place, such as training of interviewers (for primary data collection), verification of findings by local experts, and triangulation of methods. The final country reports were used to develop a comparative narrative synthesis.

The comparative synthesis drew on the approach for synthesis of multi-country qualitative research data used by Spicer, Aleshkina[37]. This synthesis was led by KIT and LSHTM teams, and followed six phases: 1) Reading of country reports and developing rationale for focusing on selected categories for comparison by two analysists from KIT; 2) KIT and LSHTM teams agree on rationale, focus and approach; 3) Cross-country findings analysed and summarised by the first analyst (ASB) with support from the second analyst (AW). Summaries of key findings were tabulated; 4) The paper was drafted by the second analyst and circulated to KIT and LSHTM for feedback on clarity and coherence; 5) The revised paper was reviewed by country teams to check accuracy of study findings, add information where needed, and to agree on the synthesis.

Results

Findings are structured according to the key elements in our conceptual framework, starting with the wider context, and ending with mental health outcomes. As we conceive HSR as overlapping with intermediate health goals, results are focused on these goals. Country reports with more detail on all elements of the framework, including used sources, are available on the STRENGTHS website.

Socio-cultural, political, and economic context

Health systems are embedded in and influenced by the wider socio-cultural, political, and economic context. While data from all four methods were triangulated to develop synthesis findings on the context, most were drawn from structured literature reviews and MHPSS indicators. Supplementary File 6 in the *Extended data* contains more elaborate summary results on context and inputs, including references to original sources[27]. Table 3 gives a summary overview of contextual indicators.

In brief our contextual analyses showed that the three upper middle-income countries (MICs) hosted the largest number of registered Syrian refugees, with the highest absolute number in Türkiye (3,574,800). In Lebanon, Syrian refugees made up 12.7% of the total population, followed by Jordan (6.1%) and Türkiye (4%). Many refugees are not registered so actual numbers may be much higher. Most Syrian refugees lived in host communities rather than camps, although in the four high-income countries (HICs) Syrian asylum seekers initially resided in reception centres or, in the case of Sweden, private accommodation or other accommodation provided by the Swedish Migration Agency. Egypt, Jordan, and Lebanon are, like Syria, predominantly Arabic-speaking and Muslim countries. Whether Syrian refugees can work depended on their legal status and country-specific regulations. Unemployment rates were much higher in host populations in MICs compared to HICs. Refugee children were entitled to education in all eight countries, however, many access barriers to education were reported (e.g. legal status, poverty, transportation, quality of education). Sweden had, according to the Migration Integration Policy Index, the most favourable political context (compared to the four HICs and Türkiye) in relation to the integration of refugees and their health.

Health system inputs

Health systems can be represented as six building blocks (leadership and governance; financing; facilities and services; health workforce; medicines; and information), which through intermediate goals (access, coverage, quality, safety) reaches its final goal. Table 4 shows selected indicators on health system inputs.

In terms of information and governance, we found that in none of the countries, is information on the mental health of refugees routinely collected at national level. All countries have a mental health policy or plan in place (unknown for Lebanon) and all, except Jordan, have specific mental health legislation. Mental health is integrated into primary health care (PHC) in the four HICs, and increasingly in the four MICs (e.g. mainly through expansion of the WHO Mental Health Gap Action Programme (mhGAP) involving training and supervision of non-specialist providers).

With regard to financing and services, we found that mental health received 0.5-11.0% (based on four countries) of national health budgets, which ranged from 4.1 to 11.9% of GDP across the eight countries. Health budgets were consistently lower in MICs compared to HICs. Important to note here is that MHPSS can be delivered outside of health facilities and is often not funded through health budgets. Syrian refugees who are granted asylum have the right to access similar MHPSS services under the same financial requirements as national citizens in Sweden, the Netherlands and Türkiye. In Germany and Switzerland local authorities determine financial access and coverage. In Jordan financial regulations for Syrian refugees for healthcare in governmental facilities changed regularly in recent years, with the latest regulation permitting refugees to access services for the same prices as uninsured Jordanians. Governmental PHC facilities and providers act as gatekeepers to specialist mental health services in the four HICs. In Türkiye, Lebanon, Jordan, and Egypt, PHC facilities are commonly run and financed or co-financed

Table 3. **Summary results on contextual factors.**

	Egypt	Germany	Jordan	Lebanon	Sweden	Switzerland	The Netherlands	Türkiye
GDP per capita in 2020 (current USD) and income group	3,569.2 USD Lower-MIC	46,252.7 USD HIC	4,282.8 USD Upper-MIC	4,649.5 USD Upper-MIC	52,274.4 USD HIC	87,100.4 USD HIC	52,396 USD HIC	8,536.4 USD Upper-MIC
Total unemployment in 2020 (% of total labour force)	7.9%	3.8%	19.2%	11.4%	8.3%	4.8%	3.8%	13.1%
Migration Integration Index in 2019 (0-100)[a]	-	Health: 63 Overall: 58	-	-	Health: 83 Overall: 86	Health: 83 Overall: 50	Health: 65 Overall: 57	Health: 69 Overall: 43
Languages spoken (%)	Modern Standard (Egyptian) Arabic (68%), Sa'idi Arabic (29%). Arabic (2%)	German (94%), English (32%), French (9%); Russian (8%)	Arabic, English widely spoken	Lebanese Arabic (official), English and French widely spoken, Armenian	Swedish, and most able to speak English	(Swiss) German (63%), (Swiss) French (23%), (Swiss) Italian (8%), Romansh (<1%)	Dutch (98%), majority also speak English and German	Turkish (90%), Kurdish (6%), Arabic (1%), other (3%)
The religion practised in country (%)	Islam (95%), Christianity (5%), other (<1%)	Christianity (61%), non-religious (30%), Islam (4%), other (5%)	Islam (95%), Christianity (4%), other (1%)	Islam (54%), Christianity (40%), Druze (6%)	Christianity (63%), non-religious (35%), Islam (2%), other (<1%)	Christianity (68%), non-religious (24%), Islam (5%), other (3%)	non-religious (68%), Christianity (25%), Islam (5%), Hinduism and Buddhism (2%)	Islam (80%), Christianity (5%), non-religious (7%), other (8%)
Number of registered Syrian refugees (year; % total host population)	131,232 Syrian refugees registered (2021; 0.1%)	572,818 Syrian refugees registered (2019; 0.7%)	670,637 Syrian refugees registered (2021; 6.6%)	865,531 Syrian refugees registered (2020; 12.7%)	123,431 Syrian asylum seekers (2011–2020; 1.2%)	21,105 Syrian asylum seekers (2011–2020; 0.3%	27,284 Syrians granted residence permits (2010–2020; 0.2%)	3,574,800 Syrian refugees registered (2021; 4.2%)
Proportion of Syrian refugees living in camps in host country (%)	Syrian refugees in Egypt do not live in camps but are living among Egyptian communities across Egypt.	Newly arrived Syrian refugees begin in a reception centre but eventually move into the community in one of the country's sixteen states.	Approximately 17% of Syrian refugees live in camps.	Unknown as official camps (e.g. UNHCR camps) are not allowed.	Asylum seekers are offered accommodation by the Swedish Migration Agency (e.g. apartment, centre, house) or can live in private accommodation.	All asylum seekers live in one of the six federal reception and processing centres across the country for the first months before being settled into a host canton.	Asylum seekers live in one of the reception centres for the first months and are then housed by municipalities across the country.	Approximately 6% of Syrian refugees remain in refugee camps.

Sources: WHO, UNHCR, World Bank, World Atlas, Wikipedia (religions and languages), national statistical bureaus (e.g. CBS for the Netherlands, Migrationverket for Sweden). See Supplementary File 6 for a more detailed overview of findings on context and inputs, including sources used.

[a]MIPEX score is based on a set of indicators covering eight policy areas designed to benchmark current laws and policies against the highest standards through consultations with top scholars and institutions using and conducting comparative research in their area of expertise. The policy areas of integration covered by the MIPEX are labour market mobility; Family reunification, Education; Political participation; Permanent residence; Access to nationality; Anti-discrimination; and Health. A policy indicator is a question relating to a specific policy component of one of the eight policy areas. Each answer has a set of options with associated values (from 0 to 100). The maximum of 100 is awarded when policies meet the highest standards for equal treatment. Source: https://www.mipex.eu/

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Table 4. Summary results on health system inputs.

	Egypt	Germany	Jordan	Lebanon	Sweden	Switzerland	The Netherlands	Türkiye
Leadership and governance								
Mental health policy	Yes	Yes	Yes	Unknown	Yes	No	Yes	Yes
Mental health plan	Yes	No	Yes	Unknown	Yes	Yes	Yes	Yes
Mental health legislation	Yes	No (covered in other laws)	No	Yes	Decentralised to municipalities	No (covered in other laws)	Yes	Yes
Financing								
% GDP on health	5.6%	11.4%	7.7%	6.0%	10.8%	11.9%	9.9%	4.1%
% health expenditure on mental health	0.5%	11.0%	Unknown	4.8%	Unknown	Unknown	10.7%	Unknown
% mental health expenditure towards mental hospitals	Unknown	11.3%	Unknown	54.0%	Unknown	Unknown	59.2%	Unknown
% funding sources for health system	Unknown	77% social security	8.8% social security, 30.7% out-of-pocket	52.5% social security, 36.4% out-of-pocket	Regional taxes, 13.8% out-of-pocket	71.5% social security, 26.8% out-of-pocket	93.0% social security, 10.1% out-of-pocket	Unknown
Costs utilising MHPSS services for refugees	None	None, but coverage varies	Same as uninsured Jordanians and coverage varies; no cost at UNHCR facilities	LBP 3,000 – 5,000 (1.75 – 3 EUR) for consultation at UNHCR facilities	Largely none, same cost as for Swedish citizens; can apply for reimbursement of out-of-pocket fees	None if approved by a doctor or psychiatrist	Same as Dutch citizens, pay the cost of monthly insurance premiums and out-of-pocket costs	Once registered, same as Türkiye's citizens.
Facilities and services	Ministry of Health main mental health service provider. MHPSS is not yet fully integrated into PHC, and so refugees either pay specialists or utilise NGO services in the parallel system.	All psychosocial services are available in the public sector. Alternatively, refugees have access to the parallel system in which many organisations offer counselling.	Syrian refugees can access MHPSS through primary care, which is increasingly integrated, or through UNHCR and NGO facilities that are accessible at no cost.	NGOs are extensively involved in care provision (in 2006, over 80% of the 110 PHC centres and 734 dispensaries are owned by NGOs). A variety of MHPSS is offered to the general population.	Refugees are identified and treated for mild mental health issues within PHC; Syrian refugees may be referred to providers who specialise in treating this group, who may be in a parallel system.	Syrian refugees with mental health needs are referred by nurses/social workers in asylum centres to PHC, where GPs can diagnose, treat, and refer. Referral is possible to general socio-psychiatric facilities, outpatient clinics for traumatised migrants, or tertiary care.	Early detection of mental health issues through prevention/ refugee integration programmes in the social domain; screenings at asylum centres; PHC providers in asylum centres or communities. GPs can treat or refer patients to secondary or tertiary care levels.	Syrians with temporary protection status can access PHC and community mental health centres for diagnosis, treatment, and referral. Those without temporary protection status can access emergency care in hospitals.

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	Egypt	Germany	Jordan	Lebanon	Sweden	Switzerland	The Netherlands	Türkiye
Medicines								
Essential drugs list	Yes	Yes	Yes	Yes	Yes, determined at the county level	Yes	No, but registered drugs list available and measures to keep them affordable.	Yes
Psychotherapeutic medicines included in the list	Yes	Yes, under 'neurological diseases'	Yes	Yes	Dependent on county	Yes, under 'neurological diseases'	N/A	N/A
Cost of psychotherapeutic medicines	Unknown; 80.0% of the population have free access	Covered by insurance	Unknown	Not covered by social insurance schemes, free at UNHCR facilities (but must pay consultation fee)	Up to €109 annually for drugs within the national insurance scheme, or €218 for drugs not covered	Unknown	Up to €385 annually	Unknown
PHC doctors authorised to prescribe psychotherapeutic medicines	Unknown	Yes	Unknown	Yes	Yes	Yes	Yes	Yes
Health workforce								
Mental health workers per 100,000	8.40 mental health workers, 1.6 psychiatrists, 0.26 psychologists, 4.8 mental health nurses, 0.45 social workers	27.45 psychiatrists, 49.55 psychologists, 56.06 mental health nurses	7.8 mental health workers, 1.125 psychiatrists, 1.266 psychologists, 3.297 mental health nurses, 0.218 social workers	1.21 psychiatrists, 3.8 psychologists, 3.14 mental health nurses, 1.33 social workers	20.86 psychiatrists, 0.93 psychologists, 50.57 mental health nurses, 18.42 social workers	41.42 psychiatrists, 40.78 psychologists	24.23 psychiatrists, 90.76 psychologists, 2.87 mental health nurses	1.64 psychiatrists, 2.54 psychologists, 0.76 social workers
Distribution of mental health professionals between urban and rural areas	Uneven	Uneven	Relatively even	Unknown	Uneven	Unknown	Unknown	Unknown
Mental health or cultural competency training	Covers psychological first aid and basic mental health care	None for undergraduate; majority of PHC doctors have not received official in-service mental health training in last 5 years	Insufficient	3% of training for doctors, and 6% of training for nurses, is dedicated to mental health	Unknown, although nurses receive theoretical and clinical training in mental illness	Cultural competency training is provided in under- and postgraduate curricula for medical students and residents	Care for patients with psychological complaints is part of GP training; nurses can specialise in mental health	Majority of PHC doctors have not received official in-service mental health training in last 5 years

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	Egypt	Germany	Jordan	Lebanon	Sweden	Switzerland	The Netherlands	Türkiye
Information								
Data on the epidemiology of mental disorders collected at the national level	Unknown	Yes	Unknown	Yes	Yes	No	Yes	Unknown
Mental health data disaggregated refugees	Unknown	No	Future plans to disaggregate health data by refugee status; Unknown if includes mental health	No	Unknown	No	No	Unknown
NGO collection of refugee mental health data	Unknown	Unknown	Unknown	Database of the Lebanon Crisis Response Plan encourages partners to collect disaggregated data for displaced Syrians, although includes limited data on mental health indicators	NGOs involved in MHPSS for refugees publish data within their annual reports	Unknown	NGOs involved in social support do not consistently publish data, aside from the Dutch Refugee Council. Knowledge centres Pharos and ARQ active in gathering and distributing information on refugee mental health	Unknown

Sources: WHO (especially Mental Health Atlas and WHO-AIMS reports), UNHCR, World Bank, Eurostat, reports by national governments. See Supplementary File 6 for more detailed overview of findings on context and inputs, including sources used.

by NGOs, with MHPSS services increasingly integrated in their services. Refugees registered with the UNHCR or the government can access these NGO or government-NGO services generally at no cost and be referred to more advanced mental health care in the general health system. MHPSS services are more financially and legally restricted for unregistered refugees and asylum seekers compared to registered refugees and the host population. Separate facilities and services for children were not widely reported on, although in Lebanon it was noted that children with mental health needs are often first identified through awareness programmes in schools and referred through the same pathway as adults.

Assessment of the health workforce shows, as expected, that the four HICs had much higher numbers of psychiatrists and psychologists than the four MICs. The rural-urban distribution of the mental health workforce was rated in the WHO Assessment Instrument for Mental Health Systems as 'disproportionate' in Egypt and 'relatively proportionate' in Jordan. Other sources suggest this distribution was uneven in Germany and Sweden (for the other countries we rated this indicator as 'unknown'). While NGOs serve as alternative health providers for Syrian refugees, particularly in the four MICs, there is limited publicly available data on the mental health workforce in parallel systems. Similarly, there are gaps in data on the mental health and cultural competency training of PHC nurses and doctors, although the limited information that we found may indicate training and supervision of non-specialists to be insufficient across all countries.

Finally in relation to medicines our appraisals confirmed that medicines for mental and behavioural disorders are available in all countries. Costs of medicines were either unknown or covered by health insurance up to a certain amount. PHC doctors in all countries were authorised to prescribe psychotherapeutic medicines (except for Jordan and Egypt where this was unknown).

Intermediate health system outcomes

Access and coverage, and quality and safety are intermediate health system goals, affecting care seeking and eventually health outcomes. All four methods were used and combined to generate these findings. Findings drawn from secondary data (i.e. literature reviews and MHPSS indicators) are referenced with an original source. If no reference is provided, those findings are drawn from a primary data source (i.e. qualitative interviews and/or survey data from STRENGTHS study).

Access & coverage. Availability and accessibility of mental health services were concerns in all countries. Demand outstrips supply of mental health resources, with insufficient numbers of mental health workers and/or services reported in Egypt, Jordan[38–40], Türkiye, Switzerland[41–44], Sweden[45,46], Germany[47–50], and in Lebanon:

> *"I feel like there are many things missing [in MHPSS care]; there aren't many available resources for them [Syrian refugees]…there aren't enough staff in this domain." (Health provider, Lebanon)*

Only the Netherlands reportedly had sufficient resources[51,52], though it was noted that this was limited in rural areas[53]. Egypt similarly reported rural areas having fewer providers and MHPSS services[54], while in Jordan there seemed to be a shortage in urban environments[55]. The unequal distribution of resources contributes to accessibility barriers, and the need to travel to seek services was perceived as a barrier not only in the Netherlands but also in Sweden, Switzerland, Germany, Lebanon, Jordan, and Türkiye. Travel was described as a challenge due to the time it took, the distance required, safety, the cost of the journey, and cultural norms surrounding women traveling[38,56–60]. Both Syrian men and women struggled to attend MHPSS services as explained by a key informant:

> *"Women are going through a hard time. Some of them cannot leave their houses. Thus, they cannot attend activities. It's hard reaching out to the male group because they are working." (Key informant, Türkiye)*

Limited availability of culturally competent providers was reported in the Netherlands, Sweden, Germany, Switzerland, Egypt, and Türkiye. This is important, as acceptability seems to be a key issue across countries. Cultural and language barriers, as aspects of acceptability, were predominantly mentioned in European countries, likely due to the greater differences with Syrian society both culturally and linguistically[47,48,53,61–66]. A Syrian refugee in the Netherlands highlighted this communication challenge:

> *"They [primary health professionals] have been trying to find me a psychiatrist or psychologist to help me relieve the pains a little bit, but the problem is that the communication was very hard; that they couldn't find me an Arabic[-speaking] doctor." (Syrian refugee, the Netherlands)*

There was low recognition by medical professionals of mental health issues by Syrian refugees when these are presented primarily through somatic symptoms in Switzerland[67], the Netherlands[53], Sweden, and Germany. Language barriers were not an issue in Jordan, Egypt, and Lebanon, but despite many similarities, a failure to provide culturally sensitive services may still present a challenge.

Stigma and limited mental health awareness in the Syrian community were reported barriers across all countries in the published literature[38,41,43,60–62,68–72] and in our primary data. Our survey found that low mental health awareness, including beliefs about effectiveness of treatment and knowledge about where to seek help, generated barriers for Syrian refugees seeking support. It was widely reported that Syrian refugees may delay or refuse to seek support for mental health issues due to stigma rooted in a cultural belief that those who need MHPSS are "crazy"[73]:

> *"In my environment, I haven't ever heard of someone visiting a psychiatrist or even considering doing such no matter what they are going through […] people may think you're crazy or something when you visit a psychiatrist" (Syrian refugee, Egypt)*

Recommendations to overcome cultural acceptability barriers include: expanding cultural sensitivity training for providers, which may decrease their use of stigmatising language[74,75]; increasing awareness around mental health in the Syrian community; and ensuring access to either a professional interpreter[41–44] or Arabic-speaking doctor.

In terms of affordability, the costs associated with professional interpreters were perceived as a barrier by health providers in the Netherlands[75], Germany[47,48], Türkiye, and Switzerland[42]. In contrast in Sweden, all non-native speakers accessing the health system have the legal right to an interpreter hired by Swedish authorities. Additional affordability concerns for Syrian refugees accessing the health system in the Netherlands extend to paying costs in excess of those covered by health insurance, while Germany also imposes co-payments for treatment. Costs for specialist mental health services were only covered by health insurance for Syrian asylum seekers in Sweden if this was deemed 'necessary'. Overall, affordability concerns seemed to be more prevalent in MICs, which could be contributed to their economic status and having less developed welfare systems. For example, caregivers of children in the STRENGTHS' RCT in Lebanon reported perceived cost of services as the principal reason for not seeking care (79%). A MHPSS provider in Jordan commented about the unaffordability of private mental healthcare:

> *"Are the mental health services actually available in Jordan? So we found that when you go to the mental health services that are available; they are only in private clinics with prices that may be too high." (MHPSS provider, Jordan)*

In Egypt and Lebanon, Syrian refugees often have to pay out-of-pocket for psychological services in the general health system[76]. In Jordan, out-of-pocket costs for public healthcare were reduced (subsidised 80%) due to a policy change in 2019, however, unaffordability of public health was reported to remain a significant barrier for Syrian refugees to accessing public health services[77]. The cost of medications and transportation of people to health facilities in particular may be prohibitive in Jordan[38,56,78]. Lebanon, Germany, Switzerland, the Netherlands, and Türkiye[74] also reported affordability barriers concerning the cost of transportation to services.

Information on accommodation was limited in the literature and therefore is solely based on primary data from the STRENGTHS RCTs. "Felt it would take up too much time/be inconvenient" was a principal reason for not seeking care reported amongst Syrian refugees participating in our MHPSS access surveys. Qualitative interview data further demonstrated that barriers to attending sessions of psychological interventions (in a research/RCT context) were lack of childcare and time, while facilitators were flexibility around appointment times, a convenient location, reimbursement of transportation costs, and the option of accessing the intervention online.

Information on access and coverage in parallel MHPSS systems was limited in all countries. While some psychosocial centres in study countries publish information on how many refugees they treat annually, they do not specify the proportions of people with a Syrian refugee background or provide information on access.

The findings from the MHPSS access survey data among adult Syrian refugee participants with elevated levels of psychological distress and functional impairment showed that 84% of them reported past emotional or behavioural problems since their displacement (ranging from 75% in Switzerland to 93% in Germany). Of these, 34% had previously sought care for these emotional problems (i.e., prior to enrolment in the STRENGTHS study) and this ranged from 24% in Egypt to 45% in Germany.

Quality & safety. For Middle Eastern countries, limited information was available on quality and safety of MHPSS systems for refugees. Among European countries, the main issue is long waiting times. Long waiting times for mental health care were reported in the Netherlands[53,79], Sweden[80,81], Switzerland, Lebanon, Jordan[71], and Germany[82]:

> *"We don't even have enough therapy places covered by health insurance anyway, so the waiting times are eternally long." (Key informant, Germany)*

In the Netherlands, it was noted that efforts were being made to reduce waiting times in specialist mental healthcare[83]. In Sweden, while 77% of patients accessed general health services within 90 days[80,81], waiting lists for specialised psychiatric care were six to twelve months. This waiting time is similar to that reported for Germany[82].

In Switzerland, a major concern was timely diagnosis. This is in part due to the time it takes a Syrian refugee to seek help in the first place, and in part due to the long waiting times for services; however, it may also be due to somatic presentations of distress impacting initial diagnosis. As mentioned above, psychological concerns often present somatically among Syrian refugees[67], and if providers are not, or not sufficiently, trained in this they may miss cues and delay diagnosis and referral. Somatic presentations of distress amongst Syrian refugees were reported concerns in the Netherlands[53], Germany, and Sweden. While a subsequent treatment delay was not explicitly mentioned in these countries, some comments made by interviewees indicated this was a challenge:

> *"When we [at NGO clinic] see [Syrian] patients, we often see that they have been circling around for quite some time in the health system. Because they have stomach problems, or headaches or pain in their body. And they have been sent around to various doctors to check the physical status. But it is rare for them to actually identify that there is something psychological behind the symptoms." (Key informant, Sweden)*

Language barriers affected service quality in the Netherlands[64,65], and consequently so did the financial barrier created by the use of professional interpreter services. The fact that interpreters are not covered by health insurance also affected quality of care in Germany[47,84,85]. In Sweden, Syrian refugees

were concerned that interpreters would not accurately communicate what the refugee wanted to express. In Switzerland, a lack of qualified interpreters was found to impact quality[86,87]:

> *"And when the interpreters then tell me that the therapists themselves are overwhelmed and do not know and are somewhat chaotic and confused and talk for too long or too short, then I notice that often the interpreter setting does not work. That in reality it often is not ideally applied because multiple people have not been trained enough for this setting." (Health provider, Switzerland)*

In Jordan[88] and Lebanon, the small mental health workforce compromised service quality. In Lebanon, there was a lack of choice and providers when seeking care. In Jordan, there was a particular lack of specialised and qualified mental health workers[38,57], leading to limited screening and referral[78,89]. Both Lebanon and Jordan also lacked certain quality assurance mechanisms. For example, Lebanon had no certifying body for psychotherapy[90] while Jordan lacked a formal accreditation system[78]. There was limited information available on quality and safety of MHPSS services for Syrian refugees in Egypt, although one Syrian refugee described the negative experience of being prescribed sleeping pills rather than receiving the psychological support they sought. This is supported by accounts from key informants of the system's emphasis on psychiatric diagnosis and psychopharmacologic treatment rather than psychological support. There was no information available on quality and safety of MHPSS services for Syrian refugees in Türkiye.

Information on quality and safety in parallel MHPSS systems was limited in all countries. MHPSS services offered by NGOs and civil society organisations in Germany reportedly had long waiting lists. Similarly in Switzerland, long waiting times in the outpatient clinics for victims of war and torture were reported. Syrian refugees in Egypt commented positively on the quality of psychological services they received through the nongovernmental sector.

Mental health outcomes

According to our conceptual framework, intermediate health outcomes influence health seeking behaviour and consequently mental health outcomes. Studies included in our rapid appraisals typically did not make linkages between these outcomes or health system inputs. The majority of studies that reported on mental health outcomes focused on prevalence rates for depression, anxiety, and post-traumatic stress and were therefore used in this comparative synthesis. There were also studies reporting on other symptoms (e.g. prolonged grief disorder, psychological distress, psychological healthiness/wellbeing); however, these were excluded because they were less commonly reported and therefore more difficult to compare across countries.

We were not able to identify any nation-wide surveys of the prevalence of depression, anxiety, and post-traumatic stress among Syrian refugees in the study countries. Table 5 shows rates reported in several sub-national studies. Rates are for Syrian asylum seekers and refugees only. We excluded a considerable number of studies that did not present disaggregated data on Syrian refugees. Rates presented here need to be interpreted with caution: it is not an exhaustive list and rates are difficult to compare within and between countries due to differing methodologies, population groups studied (e.g. various age groups and stages of settlement), settings (e.g. camp-based, urban, health centre), and outcome measures (e.g. life-time or point prevalence; diagnostic criteria and tools). That

Table 5. Observed prevalence (%) of common mental health symptoms for Syrian asylum seekers and refugees.

	Post-traumatic stress	Depression	Anxiety
Egypt	33.5[91]	30.0[91]	-
Germany	11.4[92]	14.5[92]	13.5[92]
Jordan	31.0-84.0[93–98]	28.3-85.0[93,99,100]	50.0-84.0[93,98,99]
Lebanon	35.4-45.6[97,101]	22.0[102]	-
The Netherlands	-	-	-
Sweden	29.9[103]	40.2[103]	31.8[103]
Switzerland	-	-	-
Türkiye	11.5-83.4[10,104–108]	12.5-70.5[10,104–108]	9.2-38.8[10,107,108]

Note: Observed prevalence as reported in selected studies identified in our structure review (published from 2015–2021).

Please refer to individual papers for the different definitions and measures used for the mental health outcomes reported above.

said rates found amongst Syrian refugees and asylum seekers consistently appear much higher than those amongst the eight host populations, in which prevalence rates for depression ranges from 2.6 to 5.0% and for anxiety from 2.4 to 7.1%[109–111] (no national figures available for post-traumatic stress). However, again caution is required in such comparisons given that the host population data are from Global Mental Health surveys, which have a different methodology.

Discussion

The aim of this paper was to assess the responsiveness of health systems to the mental health needs of Syrian refugees in eight host countries. The prevalence of common mental disorders identified in our structured literature searches is in line with those found in systematic reviews and meta-analyses conducted amongst conflict-affected populations[2,112], refugees and asylum seekers[113,114], and Syrian refugees[3,15]. We found substantial heterogeneity, which can partly be explained by methodological differences. While there was no adequate information to link health system inputs with outcomes (intermediary and final), the poor outcomes found through our rapid appraisals are cause for concern and may point to health systems struggling to respond to the needs of Syrian refugees. Our study offers an insight into areas where responsiveness is particularly weak and how it may be improved.

Our conceptual framework explains that responsiveness to the mental health needs of individual Syrian refugees is achieved through intermediate health goals (access and coverage; quality and safety) and health system inputs (i.e. the six building blocks), which are embedded in a larger context (socio-cultural, political, economic). Therefore, a 'response' in our study means any action related to any of these levels (inputs, intermediate goals, context) that improves the mental health outcomes of Syrian refugees. Before we discuss ways to improve HSR, we first briefly discuss the main strengths and weaknesses in HSR towards the mental health needs of Syrian refugees.

Strengths and weaknesses in HSR

Our analysis reveals two notable strengths in HSR towards mental health needs of Syrian refugees. The first is that mental health is integrated in PHC in HICs and increasingly integrated in MICs, which is in line with global recommendations[115]. The second strength is that psychotherapeutic medicines were available in all study countries and, where known, PHC providers are able to prescribe them. These two strengths, however, have their limitations because of system-level resource and capacity challenges.

A shift from traditional hospital-based mental health care to primary care settings requires PHC providers (like GPs) to be competent in the detection, treatment, and referral of patients with mental health needs. Our findings indicate these competencies to be insufficient, because of limited mental health skills and cultural competency in PHC workers, limiting timely and appropriate diagnosis, treatment, and referral of Syrian patients. While in included HICs there were more mental health specialists, cultural and language barriers challenged the communication between Syrian refugees and health providers. This is mainly due to Arabic-speaking mental health professionals being limited in number and providing care through interpreters complicated (i.e. affordability, quality, confidentiality). Our findings showed that the availability of psychologists and psychotherapists was insufficient to meet the demand and therefore the health systems' capacity for offering psychological therapies limited. In included MICs the number of mental health workers was even more limited and in addition systems in these countries may lack quality control structures for psychotherapy. Until these system-level resource and capacity challenges for psychotherapies are overcome, there is a danger that pharmacological treatment remains the dominant and only available treatment option for Syrian refugees with mental health needs in host populations.

Weaknesses in access and quality found in our study (e.g. stigma, language, cultural, knowledge/awareness, travel, costs, availability) are similar to those reported in reviews on access, barriers, and utilisation of MHPSS amongst refugees[13,15,116]. While some weaknesses were more profound in certain countries, like cultural and language barriers in European countries, and out-of-pocket costs in MICs, most weaknesses were shared across contexts. This means our following recommendations for ways to increase HSR will be relevant to most, if not all, eight study countries as well as similar refugee contexts. The order in which the recommendations are listed do not reflect their order of priority.

Recommendations

First, we recommend measures to strengthen the socio-economic situation of refugees. Our contextual analysis shows that employment of Syrian refugees was determined by existing policies; with rules varying by country, immigration status, work permits, and with fees for work permits possibly posing a financial obstacle for obtaining them. Similarly, our analysis highlighted that Syrian refugee children face access barriers to education. Unemployment, low income, and financial strain are social determinants of mental health and therefore can directly affect an individual's mental health[117]. Having policies, and particularly practices, in place that reduce access barriers to education and employment are essential to create viable livelihoods for Syrian refugees. This would not only benefit their mental health directly (i.e. reduced stress) and indirectly (i.e. financial capacity to pay for and travel to services), but also protect refugees from taking illegal jobs – further putting their health at risk – and positively affect the integration of refugees into host countries. Making such structural changes will be a challenging process requiring political will. However, subsequent to our rapid appraisal study some European countries such as the Netherlands have implemented less strict employment rules specifically for Ukrainian refugees who fled the 2022 war, which may be extended to other refugee populations.

Second, we recommend rapidly expanding the mental health workforce. This may be achieved through the further

implementation of recommended approaches like mhGAP and collaborative task-sharing – involving the transfer of some mental health care responsibilities from specialists to non-specialists[115,118]. Task-sharing approaches have a potential to address shortages of mental health specialists and reduce waiting times for specialist mental health care, which were major quality concerns put forward by our cross-country examination. For example, in Türkiye mhGAP training of primary care doctors was found useful in responding to the mental health needs of Syrian refugees, although refresher trainings were recommended[119]. Upcoming findings from the STRENGTHS project on the effectiveness, cost-effectiveness, and scalability of several MHPSS task-sharing interventions for Syrian refugees (including individual, group, adolescent, and digital versions)[21,35,120] will be important for determining the added value of such interventions and the feasibility of integrating these interventions into existing service delivery systems.

Third, we recommend increasing the cultural competencies of the health workforce. The WHO recently developed Global Competency Standards to set a benchmark for the health workforce in providing culturally sensitive care to refugees and migrants[121]. Cultural competence training of mental health specialists and non-specialists can help providers to recognise presentations of distress specific to Syrian culture and to better understand and respond to the fear and stigma associated with mental illness amongst Syrian communities[14,122,123]. This again would enable more culturally appropriate and timely diagnosis, treatment, and referral. In non-Arabic speaking countries our results indicate it is vital in this regard to also increase the availability, affordability, and quality of professional interpreter services as well as to diversify the mental health workforce, such as through hiring Arabic-speaking health workers or cultural mediators. Participation of refugees themselves was reported important but underutilised in a review on current efforts to create more culturally sensitive refugee services[124], meaning this should be considered in future initiatives.

Fourth, we recommend increasing mental health awareness, including knowledge of mental health resources, and reducing mental health stigma among refugee communities. A recent Lancet commission calls for more action on ending stigma and discrimination in mental health worldwide and recommends the involvement of people with lived experience of mental health conditions in anti-stigma programmes[125]. Other studies showed more research is needed on the effectiveness of anti-stigma interventions tailored to refugees[123,126].

Fifth, we recommend strengthening national health information systems. Our results indicate that information on the mental health of Syrian refugees (and other refugees) was not routinely collected at national level in all study countries. Publicly available information on the parallel MHPSS systems was extremely limited. To offer a more holistic picture of the current situation, information from both general and parallel MHPSS systems need to be consolidated and interrelated by the national government and relevant UN agencies and NGOs. Besides data gaps, we found many data to be old and difficult to compare across countries. Reliable, timely, and disaggregated information is vital for health system actors (e.g. policymakers, managers service providers) to be more responsive to the needs and expectations of Syrian refugees (as well as refugees from other nationalities), as well as for measuring progress on health inequalities and for stimulating accountability mechanisms.

Sixth, and underpinning our other recommendations, we advise increasing national funding for mental health. Our appraisal showed that only 0.5-11.0% of national health budgets (which ranged from 4.1 to 11.9% of GDP) were allocated to mental health. This amount is disproportionate of the heavy individual, social, and economic burden of mental illness. Based on data from 28 EU countries, the OECD predicts the economic and social costs of mental ill-health to be more than 4% of GDP[127]. As previously recommended[115,127], more efficient use of mental health funding is needed, including more investment in community-oriented care[128]. Strengthened MHPSS care in routine health and social care platforms has the potential to overcome some of the access barriers reported in this synthesis (e.g. unequal rural/urban distribution, physical access, and stigma).

Limitations

Our study has several limitations. Firstly, publicly available data on some key indicators was scarce, with variations in data collection tools and years across countries challenging cross-country comparison and drawing definitive conclusions. Secondly, while reanalysis of primary qualitative data is pragmatic and time-reducing (and therefore befitting of rapid appraisals), it meant that not all interview data was relevant to our research objectives, nor did it help to fully address our objectives. Thirdly, our structured literature reviews included literature from various sources (e.g. peer-reviewed journals and grey literature like NGO reports) without performing quality assessments. While this led to inclusiveness and breadth in our synthesis, the results presented here may repeat those from poor-quality studies. A central issue in rapid appraisals is to find a "balance between speed and trustworthiness"[25]. To account for these limitations, findings were discussed with country teams (who were involved in primary data collection and knowledgeable about the local context and literature) and the wider team of researchers involved in the synthesis. Also, triangulation of various data collection methods and perspectives validated our interpretations. Fourth, our study will be difficult to reproduce due to the number of methods and data used. To redress this, further information on our data can be found in the Supplementary Files, and authors can be contacted for more details. Fifth, since our focus was on MHPSS systems, issues such as social determinants of health were not addressed as much; however, we recognise their importance and recommend that this be a focus of future studies.

Conclusions

This study is the first to assess and compare HSR to the mental health needs of Syrian refugees across countries. Our rapid appraisals show that all eight host countries struggle to provide responsive MHPSS care to Syrian refugees. The many issues in access to quality care found in our synthesis may explain why Syrian refugees struggle to seek support and have poor mental health outcomes.

While various positive changes have been made in the general health systems of study countries, such as increasing the integration of mental health into primary care, many problems remain. Parallel nongovernmental MHPSS systems may be more responsive than state systems. However, in the long run, these parallel structures may be less sustainable and can undermine efforts to strengthen national health systems.

Strengthening the capacity of the mental health workforce (in quantity, quality, diversity, and distribution) is urgently needed to enable care-seeking for vulnerable populations like Syrian refugees and reduce waiting times in mental healthcare. Increased financial investment in mental health and improved health information systems (i.e. regularly updated disaggregated data) are crucial. More refugee-responsive MHPSS systems will benefit not just Syrian refugees and refugees of other nationalities but likely also migrants and host populations. A social determinants of health approach can be recommended to address the complex mental health needs of the refugees, and this may include MHPSS interventions as well as a range of socio-economic policies.

Ethics and consent

Ethical approval for primary data collection (i.e. qualitative interviews, MHPSS access surveys) was provided by the Ethics Committee of the London School of Hygiene & Tropical Medicine (14330 -1) in the UK. Additionally, local ethical approval was sought by STRENGTHS partners in all study countries and granted by local ethics boards (see Supplementary File 2 in the *Extended data*[27]). All respondents in primary data collection gave written informed consent. Data protection, sharing, and confidentiality measures were in place.

Data availability

Underlying data

Country reports with more detail on all elements of the framework, including used sources, are available on the STRENGTHS website. STRENGTHS research data are stored at VUA in a data repository. Access to primary data (anonymised qualitative data and survey data) is restricted for reasons of confidentiality. Access may be granted upon reasonable request to the STRENGTHS General Assembly (e.m.sijbrandij@vu.nl).

Extended data

DataverseNL: Supplementary materials for "Health system responsiveness to the mental health needs of Syrian refugees: mixed-methods rapid appraisals in eight host countries in Europe and the Middle East". https://doi.org/10.34894/DOMHPZ[27].

This project contains the following extended data:

- Supplementary File 1 Detailed conceptual framework.docx (more detailed background information on our conceptual framework);
- Supplementary File 2 Overview partner organisations and ethics.docx (an overview of all organisations contributing to this study and local ethical approvals);
- Supplementary File 3 Eligibility criteria and search terms.docx (the eligibility criteria and search strategy used for structured literature searches);
- Supplementary File 4 Complete data extraction file.xlsx (the complete data extraction file of all included studies from literature searches);
- Supplementary File 5 Indicator checklist.docx (the checklist of specific indicators searched);
- Supplementary File 6 Detailed narrative findings on context and inputs.docx (and more detailed narrative of findings on context and inputs, including references to sources).

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Mathilde Mathilde Sengoelge
Department of Global Public Health,, Karolinska Institutet, Stockholm, Sweden

Thank you for the opportunity to review this article with key recommendations on how to improve the HSR of Syrian refugees in order to strengthen their mental health.
Suggestions for improvement:

Abstract: highlight that the article provides 6 recommendations as results is dominated by the constraints/problems which are known to many in the field.

Manuscript:
Conceptual Framework: The WHO framework published in 2007 which you cite has 'improved health' as an overall goal, alongside three other important ones. The Figure 1 in this article does not make it clear what is the difference between the 'general' and 'parallel' inputs without reading the text, yet it should be understood as stand alone and informative. As a reviewer I was unable to access reference 26 through my university library in order to understand why it is necessary to detail all 6 for all citizens vs. for refugees only. The suppl. material provided do not help to clarify this point. As such, Framework 1 inputs would benefit from editing. There is furthermore no link between this framework and the presentation of the results, health system inputs as these were not structured as 'general' and 'parallel'.

Is the work clearly and accurately presented and does it cite the current literature?
Yes

Is the study design appropriate and does the work have academic merit?
Partly

Are sufficient details of methods and analysis provided to allow replication by others?
Partly

If applicable, is the statistical analysis and its interpretation appropriate?

Not applicable

Are all the source data underlying the results available to ensure full reproducibility?
Yes

Are the conclusions drawn adequately supported by the results?
Yes

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Mental health of refugees resettled in high income countries.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

Reviewer Report 21 July 2023

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Akihiro Seita
Department of Health, United Nations Relief and Works Agency, Amman, Jordan

Dear Authors,

Thank you for providing this highly engaging and significant manuscript. While I am not an expert in MHPSS, working with refugees has given me a deep appreciation for your dedicated efforts in addressing the crucial issue of mental health among Syrian refugees. Your manuscript holds invaluable information for the global health and humanitarian communities, and it should undoubtedly be indexed.

However, I would like to raise several key strategic issues related to your analysis and recommendations:

Firstly, I found the grouping of the eight host countries to be a potential concern. Among these countries, we have four high-income European nations (Germany, Netherlands, Sweden, and Switzerland) with a GDP per capita ranging from USD 50,000 to 90,000, while the remaining three Middle Eastern countries (Egypt, Jordan, and Lebanon) have middle-income status, with a GDP per capita of USD 3,000 to 5,000. Grouping all eight countries together and providing common recommendations may not be practical, considering the substantial differences in the development, financing, and functionality of their respective health systems.

This distinction is particularly crucial when it comes to intermediate health goals, encompassing

seven access and coverage indicators. Access and affordability of health services vary significantly between countries with achieved universal health insurance coverage (such as the four high-income countries) and those still developing their health insurance systems (like the three middle-income countries). While the challenges in health system responsiveness you have identified might share similar principles across all eight countries, the practicality and strategic responses to these issues differ significantly.

Hence, I believe it would be more appropriate to discuss the subject matter separately for high-income and middle-income countries. In this regard, splitting your manuscript into two manuscripts—one focusing on the four high-income countries and the other on the three (or four, including Turkey) middle-income countries—would provide a more comprehensive and targeted approach.

Secondly, I would like to address the nature of the recommendations. I genuinely appreciate and value your categorization of recommendations into various chapters, such as socio-cultural, health system inputs, intermediate health system outcomes, and others. However, it may be necessary to reconsider and revise the way these recommendations are presented. Please find my specific comments below.

Regarding the first recommendation to "strengthen the socio-economic situation of refugees," I wholeheartedly agree with its importance. However, this recommendation raises another issue, as outlined below.

The second, fifth, and sixth recommendations (related to mental health workforce, national health information systems, and national funding for mental health) have significant resource implications. While these recommendations are undoubtedly critical, especially for middle-income countries with limited resources and health systems struggling to meet the increasing healthcare needs of their populations, they may not be realistic or strategic. While these recommendations may be more relevant to high-income countries with comparatively stable national health system financing, it is important to note that economic difficulties can also impact high-income countries.

Therefore, I suggest focusing on immediate actions that resource-constrained middle-income countries can undertake by maximizing the utilization of existing resources, both in terms of finance and human resources, to improve MHPSS for refugees. This is another reason why I propose splitting the manuscript into two manuscripts—one for high-income countries and the other for middle-income countries.

Thirdly, I would like to address the issue of access to mental health services for both citizens and refugees. If I may have missed it in your manuscript, I was unable to determine whether Syrian refugees have equal access to MHPSS compared to the host countries' citizens. Ensuring that MHPSS is inclusive and based on the right to health is of utmost importance.

Lastly, while I deeply appreciate your manuscript as an analysis of health systems response, my experience highlights the critical role of engagement and collaboration with non-health sectors in providing MHPSS (and all healthcare) to refugees. Refugees often face social and economic marginalization, leaving them vulnerable to various risks. Therefore, I highly appreciate your first recommendation regarding the improvement of the socio-conditions for refugees. If possible, it would be beneficial to mention the engagement or collaboration with other sectors, particularly

those involved in social security or social safety networks, in the provision of MHPSS care for refugees in these countries.

Once again, I highly value your extremely important manuscript, which I believe should be indexed. I hope my comments above prove helpful to you.

Is the work clearly and accurately presented and does it cite the current literature?
Partly

Is the study design appropriate and does the work have academic merit?
Yes

Are sufficient details of methods and analysis provided to allow replication by others?
Partly

If applicable, is the statistical analysis and its interpretation appropriate?
Yes

Are all the source data underlying the results available to ensure full reproducibility?
Yes

Are the conclusions drawn adequately supported by the results?
Partly

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Health systems, humanitarian assistance in health

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.