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Abstract

Background: Polymerase chain reaction is a well-known method for testing COVID-19 infection, however, refugee populations often face difficulties in accessing testing. Several structural and cultural challenges have hindered access of Syrian refugees to COVID-19 testing in Lebanon, including financial barriers, stigma, and low perception of vulnerability.

Aims: To explore barriers to accessing COVID-19 testing by Syrian refugees in Lebanon.

Methods: This qualitative study conducted 10 focus group discussions among Syrian refugees and 21 individual semi-structured interviews with healthcare workers. Ethical approval was obtained from the Institutional Review Board of the Lebanese International University, and the study followed the ethical principles of the Declaration of Helsinki.

Results: Syrian refugees in Lebanon did not consider COVID-19 testing to be important. Despite the availability of free testing services, psychological, cultural, environmental, and financial barriers hindered them from getting tested. Some of them relied on consultation with pharmacists, who were easy to access and provided symptomatic treatment without the need to test for COVID-19. Fear of stigma, deportation, and isolation were common cultural barriers. Testing was considered unnecessary because of the perception of low disease severity and an attitude of negligence towards preventive practices. The harsh economic and living conditions were of greater concern to the refugees.

Conclusion: Findings from this study add to existing literature regarding the social and cultural barriers to COVID-19 testing among Syrian refugees and should be considered when tailoring health promotion campaigns to halt the spread of the COVID-19 pandemic.

Keywords: COVID-19, laboratory test, refugees, stigma, Syria, Lebanon

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Introduction

Since January 2020, COVID-19 has affected over 220 countries, with > 263 million infections and > 5.2 million deaths globally (1). COVID-19 poses a major public health concern because of the high transmissibility of SARS-CoV-2, compared with other coronaviruses, through respiratory droplets and contact. Thus, testing remains a crucial preventive and diagnostic measure (2). Delays in detection and diagnosis can hamper national and international efforts to contain the pandemic (3).

Inequity in COVID-19 testing has been reported in various contexts and populations. Limited access to testing in rural and low socioeconomic status communities has been reported in the United States of America (USA), and was associated with confusion in understanding testing guidelines (4). In the United Kingdom of Great Britain and Northern Ireland, testing inequity has been reported among ethnic minorities and marginalized communities (5). In the USA, the cost of testing was a barrier, especially among minorities, including non-US citizens and immigrants (6). Poor awareness of symptoms and geographical access were other barriers to testing (7,8). In developing countries, limited geographical access and delay in reporting results were cited as

barriers to testing (9). Cognitive and emotional barriers to testing included fear of pain and infection during testing (10).

Refugee populations have been largely neglected in the COVID-19 response, and have suffered from a critical shortage of testing resources worldwide (11). The COVID-19 pandemic has highlighted existing disparities in accessing healthcare services globally, particularly among vulnerable groups such as refugees (12). According to the United Nations High Commissioner for Refugees (UNHCR), Lebanon hosts the largest number of refugees per capita, with ~1.5 million registered Syrian refugees since the beginning of the Syrian war in 2011 (13). The majority of Syrian refugees in Lebanon live in overcrowded camps or informal settlements with precarious living conditions, or in rented houses in low socioeconomic areas. This means that testing has become more important in preventing viral transmission, under conditions where physical distancing and isolation are not viable (14,15).

When the first case of COVID-19 in Lebanon was confirmed in February 2020, the Lebanese Ministry of Public Health offered free COVID-19 testing for symptomatic patients at government hospitals and through random community testing (16). Since then, the number of healthcare organizations offering COVID-19 polymerase chain reaction (PCR) testing has increased. However, logistic barriers to accessing such organizations, as well as the financial burden of testing at other approved testing facilities (80% of which are private hospitals and laboratories), have rendered COVID-19 testing inaccessible to most of the population, including Syrian refugees (17). The response strategy of the ministry to the pandemic failed to adequately address eligibility criteria for free COVID-19 testing, including for Syrian refugees, which is critical considering that > 90% were below the poverty line and facing affordability challenges (18).

UNHCR cover the cost COVID-19 testing and treatment for Syrian refugees in Lebanon in coordination with the Lebanese Ministry of Public Health (19). Several nongovernmental organizations (NGOs), alongside UNHCR, have implemented various COVID-19 preventive measures, such as awareness sessions and distribution of hygiene kits. However, the temporary nature of activities implemented by NGOs due to limited resources and donor fatigue made the response to the pandemic in a refugee context challenging (20). Lebanon was in the midst of its worst economic crisis in decades, which posed additional challenges to an already overworked, underfunded national healthcare system (21,22).

Barriers to testing among Syrian refugees in Lebanon include lack of financial resources, as refugees who cannot afford the test (equivalent to US$10) isolate in their tents, unaware that UNHCR covers the cost of testing (23). Another barrier to testing is fear of stigma from the

surrounding community. Reluctance to test is exacerbated by: the challenges of security checkpoints, which may induce fear because of refugees' legal status and unavailability of registration papers; logistic barriers affecting accessibility of the nearest testing centres; and discrimination during testing from the surrounding community (24). The COVID-19 pandemic is largely perceived by Syrian refugees as propaganda, and many have conspiracy beliefs, and therefore do not believe in PCR testing (24). The dire economic situation has made the pandemic less of a priority for refugees than securing their daily livelihood, and fear of starvation exceeds that of COVID-19, which affects willingness to test (14). However, barriers to testing are not fully understood in the refugee context (15).

Accurate data on the prevalence and testing rate of COVID-19 among Syrian refugees are lacking, and there is a need to understand the different environmental, cultural, and social factors that affect COVID-19 testing. The aim of this study was to explore the barriers related to accessing COVID-19 PCR testing among Syrian refugees in Lebanon.

Methods

Study design and population

This qualitative study was performed in September 2021 by conducting focus group discussions among Syrian refugees, and personal semistructured interviews with healthcare workers that provided healthcare services for Syrian refugees in Lebanon.

Three of the 5 governorates in Lebanon were included in the study as they hosted the majority of the refugee population: Bekaa (350 560 refugees), Beirut (259 350 refugees), and South Lebanon (90 832 refugees) (25). The study population comprised both male and female Syrian refugees, married and unmarried, and aged > 18 years. We considered refugees living in camps and in rented houses in cities. After obtaining the list of refugee camps from UNHCR, we randomly selected 2 each from Bekaa and South Lebanon. In Beirut, most refugees lived in rented houses and were approached in the premises of the healthcare organizations that provided healthcare services to Syrian refugees. Two healthcare organizations were chosen randomly from 14 centres in Beirut run by a partner organization, Amel Association (NGO with primary healthcare centres in all Lebanese regions), which has been providing healthcare and social welfare services to Syrian refugees since 2016 (26).

The study population included healthcare workers with at least 1 year of experience in public or private organizations or NGOs providing health services to Syrian refugees in Lebanon. Twenty-one healthcare workers were randomly selected for individual interviews from healthcare centres run by NGOs and from private and governmental laboratories providing PCR

testing in the selected study regions.

Data collection

The study was approved by the Ethical Committee of the Lebanese International University (reference number: LIUIRB-210524-SK-040). Three researchers trained in qualitative techniques were recruited and trained in the framework of the study. Data collectors did not have any relationship with any of the interviewees. Data were collected during the first 3 weeks of September 2021.

Focus group discussions with refugees living in camps were conducted in Bekaa and South Lebanon in coordination with Amel, which arranged the logistics, official permits, and appointments with refugees. Researchers approached the refugees in the backyards of the tents in the camps. Refugees living in rented houses in Beirut were approached at supermarkets and were invited to participate in the focus group discussions that were held at Amel Association centres. Healthcare workers were interviewed in the health centres in the 3 governorates visited by the refugees. None of the selected participants refused to be interviewed.

The researchers introduced the objectives of the study and obtained verbal informed consent (refugees were unfamiliar with the research modalities and were reluctant to sign). Participants were assured that information would be kept confidential and anonymous.

All semistructured interviews and focus group discussions were conducted in Arabic, and were recorded using a digital audio recorder. Field notes were taken after concluding the interviews. Interviews and discussions lasted approximately 25 and 50 minutes, respectively. The guidelines for focus group discussions with refugees included questions related to 3 main areas: attitudes toward COVID-19 (perceived severity and vulnerability); attitudes towards PCR testing (importance and availability); and use of testing services (facilitators and barriers to testing). Examples of questions included: (1) To what extent do you perceive that you and your family members are susceptible to COVID-19? (2) How serious is COVID-19 infection? (3) If you have experienced COVID-19-like symptoms, have you gone for a PCR test? The guidelines for interviews with healthcare workers included questions related to the prevalence of testing and barriers to testing. Examples of questions included: (1) Can you describe the barriers to conducting PCRs among refugees (financial, geographical, transportation, cultural, and environmental). (2) Can you describe the cultural factors that shape refugees' decision to test? (3) Do you trust physicians and the healthcare service providers?

The required number of interviews was decided after attaining data saturation (27), when no new information was likely to be obtained in answering the study objectives, and sufficient information was gathered to replicate the findings (28). A total of 84 Syrian refugees (61 female and 23 male) participated in 10 focus group discussions (8–10 in each group). Five discussions were conducted in refugee camps (3 in Bekaa and 2 in South Lebanon) and 5 with refugees living in rented houses, interviewed at the Amel Association health centre in Beirut. Participants were aged 18–55 years and had resided in Lebanon for at least 1 year. We interviewed 21 healthcare workers, including physicians, laboratory directors and technicians, nurses, and social workers. The sociodemographic characteristics of the participants are shown in Table 1 .

Data analysis

Data were transcribed into English and entered into Atlas Ti5 software for qualitative analysis. The analysis aimed to identify emergent themes extracted from the content of the interviews. Thematic analysis was applied to data to investigate their content and to provide an understanding of the barriers and facilitators to COVID-19 testing. Data were described after coding, categorizing, and assembling the themes. Phrases with similar meanings were identified, and coded and grouped by the first and second authors to form categories. Illustrative quotes were selected to support interpretation of the results.

Results

Table 2 provides the detailed themes, subthemes, and representative quotes retrieved from the interviews and focus group discussions.

COVID-19 test utilization

Healthcare workers at NGO clinics and private laboratories expressed concern about low COVID-19 testing rates, whereas those at public hospital laboratories did not perceive low testing rates: “I am not aware that there are barriers to testing among refugees; we conduct many tests daily” (Laboratory Director, Public Hospital, Beirut). Further analysis of the interviews clarified that many refugees did not use COVID-19 testing services or did not consider them to be important. Refugees only underwent testing when obliged to do so, such as for travel or hospital admission. One ethical violation emerged in the conduct of COVID-19 testing, with some laboratories accused of selling fake reports with negative results.

Availability and geographical accessibility to testing services

Healthcare workers indicated that free COVID-19 testing services were widely available to refugees. Several healthcare organizations offered testing services for free (UNHCR and other NGOs) or for a fee (private laboratories widespread in camp areas). Some healthcare workers

expressed concern regarding free testing organized by NGOs, describing it as random and unsustainable. Participants in the focus group discussions confirmed the widespread presence of centres offering COVID-19 testing across all Lebanese governorates, and that geographical proximity was not an obstacle.

Barriers to testing

Despite the availability of free and geographically accessible COVID-19 testing services, testing was mostly done only when necessary. Several barriers to COVID-19 testing emerged, as illustrated by the psychological, social, and contextual challenges that shaped refugees' decision to undergo testing.

Operational challenges to COVID-19 testing

Refugees expressed several challenges within the COVID-19 testing process. Many of them were unaware that testing was free at public hospitals, while others perceived the process as unclear. Refugees rarely tested and described the process as tedious, time consuming, and expensive. Most refugees stated that, upon experiencing COVID-19-like symptoms, they relied on pharmacies for provision of symptomatic treatment and medical advice because of proximity and easy access.

Psychological factors: perceived severity and vulnerability to COVID-19

The focus group discussions and interviews with healthcare workers revealed that while refugees generally did not lack COVID-19 awareness, they usually had low risk perception, and thus did not comply with the preventive measures recommended by health authorities. A nurse in Beirut stated: "It is not an issue of awareness; enough campaigns were organized about COVID-19; still, they have reckless attitudes towards the virus". Another nurse, in Bekaa stated: "They ignore their symptoms and treat it is as a flu". Differences in COVID-19 risk perception were noted among refugees according to residence. When asked whether they considered themselves and their families to be vulnerable to infection, refugees residing in cities had a higher perceived risk of infection than those residing in camps. Healthcare workers attributed the different risk perceptions to the fact that refugees residing in houses in cities had higher socioeconomic status: "They mingle more with the local community, like when working in construction companies. They abide by recommendations, and wear masks in supermarkets and at work".

Beliefs and attitudes towards illness

Fear of stigma and discrimination was especially noted among refugees living in cities. In general, refugees had reckless attitudes towards infection. They believed in fate – an attitude enforced by their harsh living conditions. One woman living in a refugee camp stated: "If we

finally die, it would not be worse than this life we are living".

Financial barriers

The fear of testing positive and subsequently having to isolate and stop work was frequently mentioned by refugees. Unaffordability of testing was commonly mentioned by refugees in both camps and cities, and by healthcare workers. Some refugees affirmed that they would test if it were free of charge. Healthcare workers reported good participation of refugees in free COVID-19 testing campaigns. It was clear that refugees participated in free screening campaigns when organized by NGOs in order to "comply with programme components, thinking that if they did not participate, the NGO would not help them anymore" (physician, Bekaa). Another issue was that some refugees required an incentive to test: "They become used to receiving incentives from NGOs to participate; they always ask about gift bags" (physician, Bekaa). Healthcare workers disagreed that transportation costs were a barrier to testing: "Most refugees have motorcycles and they do not seem to have problems reaching the centres for services. Also, medical laboratories are widespread near the camps." (Physician, South Lebanon).

Political challenges: refugee status and fear of deportation

Refugees refused to test for COVID-19 for fear of deportation if they tested positive. Refugees usually did not inform UNHCR when experiencing COVID-19 symptoms, although free tests were available.

Discussion

Many Syrian refugees in Lebanon did not believe in the importance of COVID-19 testing. Although testing services were geographically accessible to refugees throughout Lebanon, there were individual, cultural, environmental, and financial barriers to testing. Complications in the testing process and retrieving results, compared with the ease of access and lower financial burden of visiting pharmacies, made refugees rely on pharmacies (which did not provide testing services) when experiencing COVID-19 symptoms.

Previous studies have revealed that fear of starvation resulted in Syrian refugees giving screening a low priority (14). We identified additional, previously unexplored factors that created

an attitude of carelessness towards COVID-19 infection, including harsh economic and living conditions, overcrowding in camps, and the myriad of worries that refugees face in daily life.

Our results agree with previous studies that identified financial barriers to testing among refugees (29–31). Other structural and contextual barriers to seeking health care have been described previously, including: low socioeconomic status, overcrowding, lack of access to clean water, stigma, high prevalence of noncommunicable diseases, and lack of awareness (32,33). Some studies have described lack of medical supplies, testing kits, and national surveillance as barriers to accessing COVID-19 testing (33,34), but these were not found in our study.

We found that healthcare workers believed that COVID-19 prevalence among Syrian refugees in Lebanon was lower than expected. This may be attributed to under-reporting, or to slower transmission in refugee camps because of the younger demographics (50% of refugees globally are

Our study had some limitations. The results from the focus group discussions revealed barriers to acessing COVID-19 screening as perceived by refugees who were predominantly women, and all below university education level; thus, the perspectives of men or refugees with higher education levels were unexplored and may have differed. The specific health system for refugees in Lebanon may differ from that in other countries, which limits the generalization of our results to refugees in other countries. However, our results provide important information for creating health policies for refugees in Lebanon and similar Middle Eastern countries.

The results of this study have several policy implications to take into consideration when implementing health promotion programmes for prevention of COVID-19 among refugees. Firstly, the fact that refugees rely mainly on and trust pharmacists highlights the importance of pharmacists as assets for the promotion of health services, and to explore the feasibility of implementing COVID-19 screening at the pharmacy level. Secondly, it is important to reflect on engaging policy-makers in appraising the ethical considerations of mandatory COVID-19 vaccination to mitigate the spread of the virus in overcrowded settings, such as refugee camps. Thirdly, it is important to consider evaluation and monitoring of healthcare programmes among refugees by an external agency to ensure accountability during service delivery. A laboratory director in Bekaa stated: “Some of these campaigns were just to report to the donor agency. In one campaign, 20–30 PCRs were performed. In another camp, the campaign performed only 5 PCRs”. Finally, this study demonstrates that policy-makers should not expect that refugees will use services, even if they are free. Therefore, when designing and implementing prevention programmes in refugee settings, it is crucial to address the indifference to preventive measures that arises from the harsh living conditions in refugee camps.

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Accès des réfugiés syriens au dépistage de la COVID-19 au Liban

Résumé

Contexte : L'amplification en chaîne par polymérase est une méthode bien connue de dépistage de la COVID-19, mais les populations de réfugiés rencontrent souvent des difficultés pour y accéder. Plusieurs problèmes structurels et culturels ont entravé l'accès des réfugiés syriens au dépistage de la COVID-19 au Liban, notamment des obstacles financiers, la stigmatisation et une faible perception de la vulnérabilité.

Objectifs : Examiner les obstacles qui entravent l'accès des réfugiés syriens au Liban aux tests de dépistage de la COVID-19.

Méthodes : Dans le cadre de la présente étude qualitative, 10 groupes de discussion thématique réunissant des réfugiés syriens ont été organisés et 21 entretiens individuels semi-structurés ont été réalisés auprès d'agents de santé. L'approbation éthique du Comité d'examen institutionnel de l'Université internationale libanaise a été obtenue et l'étude a suivi les principes éthiques de la Déclaration d'Helsinki.

Résultats : Les réfugiés syriens au Liban ne considéraient pas que le dépistage de la COVID-19 était important. Malgré la disponibilité de services de dépistage gratuits, des obstacles psychologiques, culturels, environnementaux et financiers les ont empêchés de se faire dépister. Certains d'entre eux s'en remettaient à la consultation des pharmaciens, qui étaient faciles d'accès et fournissaient un traitement symptomatique sans qu'il soit nécessaire de procéder à un test de dépistage de la COVID-19. La peur de la stigmatisation, de l'expulsion et de l'isolement constituaient des barrières culturelles courantes. Les tests de dépistage ont été jugés inutiles en raison de la perception d'une faible gravité de la maladie et d'une attitude négligente à l'égard des pratiques préventives. Les conditions économiques et de vie difficiles préoccupaient davantage les réfugiés.

Conclusion : Les résultats de la présente étude s'ajoutent à la littérature existante concernant les obstacles sociaux et culturels qui entravent le dépistage de la COVID-19 chez les réfugiés syriens. Ces résultats devraient être pris en compte lors de la mise en place de campagnes de promotion de la santé visant à enrayer la propagation de la pandémie de COVID-19.

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