

Virginia Refugee's Access to COVID-19 Health Information

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Abstract

Background: This study examined how refugees in central Virginia, United States were able to access public health information about COVID-19 and any barriers to following COVID-19 prevention guidelines.

Methods: Individual interviews were conducted with refugees (n = 40) attending a family medicine clinic serving refugees and immigrants. Participants answered questions about their primary methods of obtaining COVID-19 and COVID-19 vaccine information, how they prefer to receive this information, information given by employers, precautions taken at their place of work, and current vaccination status.

Results: We found that television and social media played a large role for refugees in obtaining COVID-19 information. Participants noted they preferred in-person visits and phone calls to communicate with their healthcare providers, who were important for disseminating vaccine information.

Discussion: This is one of the first studies to explore how refugees obtain health information related to COVID-19 and the vaccine, and provides valuable information as vaccination outreach continues in light of new viral strains and increased need for booster vaccinations. **Conclusion:** The results of this study can guide development of health communication materials to engage refugee communities as the COVID-19 pandemic evolves and responses to it

Introduction

The severe acute respiratory syndrome 2 virus (SARS-CoV-2) has caused a global pandemic, as recognized by the World Health Organization (WHO) in March 2020 (World Health Organization, 2020). As of January 10, 2022, the COVID-19 virus had infected over 300 million people and caused nearly 5.5 million deaths globally (World Health Organization, 2022). Refugees, in particular, are vulnerable to health and economic problems during the pandemic due to their living and working conditions (Kluge et al., 2020). Additionally, they face financial, linguistic, administrative, and legal barriers in accessing the host country's health system (Hintermeier et al., 2021). If communities are to be kept safe and healthy, the refugee population must be considered in the response measures undertaken to fight the pandemic.

The general population appears to have good knowledge about the mode of transmission and general symptoms of COVID-19, but there are some misconceptions about how to prevent infection (Geldsetzer, 2020). These misconceptions could be exaggerated in refugee populations given their cultural and linguistic barriers. Furthermore, a global study revealed that there is a significant number of individuals who question accepting the COVID-19 vaccines (Mannan and Farhana, 2020). While some studies have investigated vaccine attitudes among migrant groups, literature is lacking about refugee perceptions on the COVID-19 vaccines (Crawshaw et al., 2021).

Given the widescale impact of the COVID-19 pandemic, the hardships faced by refugees and the lack of information surrounding their experience during the pandemic, the goal of this study is to understand how refugees access health information, what kind of barriers they face in following COVID-19 prevention

protocols, and to understand vaccination efforts in the refugee population. This information will help us to better engage the refugee community with public health efforts and fight the pandemic.

Methods

Potential study participants were recruited through the University of Virginia International Family Medicine Clinic (IFMC), which provides healthcare to the refugee and special immigrant visa (SIV) populations in the central Virginia region (Elmore et al., 2019). Criteria for study participation included refugee or SIV status (hereafter called refugee) and age of 18 years and older. Purposive sampling was used to diversify participant demographics across gender and country of origin to ensure that a variety of experiences were incorporated. This information was obtained by reviewing charts of patients on the clinic schedule each day. We aimed for a sample of 40 patients based on the average number of patients seen each week during the data collection period, and assuming a 50% participation rate. A medical student (KP) attended the IFMC sessions during June 2021 and approached potential study participants while they waited for their appointment or at the conclusion of their appointment. The potential study participants were informed about the overall nature of the study, that no identifiable information would be documented, and that they would receive \$25 in the form of a grocery store gift card for completing the study. If interested, the participants could complete the interview in the clinic or schedule a phone call for a later time. Professional interpreters through a telephone interpreting system were used to communicate with participants with limited English proficiency.

The interviews were conducted using a script partially based on a guide provided by the Society of Refugee Healthcare

Providers (Society of Refugee Healthcare Providers, 2020). Each interview lasted approximately 20 minutes and elicited how participants accessed information about COVID-19, barriers to following COVID-19 protocols, COVID-19 vaccination status, and demographic information such as age, gender, country of origin, language in which the interview was conducted, level of education, number of years in the US, and employment status. No identifying information was collected.

Descriptive analysis, including frequencies, was performed on the responses from the closed-ended questions using SPSS. Responses to open-ended questions were grouped into thematic categories based on similarities as determined by the primary author. Categories were then confirmed or adjusted based on the remaining authors’

suggestions. Frequencies for each category were obtained. This study was approved by the Institutional Review Board for Health Sciences Research (IRB-HSR) at the University of Virginia (UVA).

Results

Of the 48 patients asked to participate in the study, 40 patients consented and completed the study (83% participation rate). The remaining 8 patients either declined to participate in the study or failed to complete the interview. A majority of the study participants were female (62%) and born in the Middle East (52%), South/Southeast Asia (30%), and Africa (10%). The social and demographic characteristics of the 40 participants are displayed in Table 1.

Table 1. Social Demographics of Participants

<i>Demographic Variable</i>	<i>N</i>	<i>%</i>
Age		
18-24	2	5.00
25-49	26	65.00
50+	12	30.00
Gender		
Male	15	38.00
Female	25	62.00
Birth Country		
Afghanistan	10	25.00
Bhutan	5	12.50
Burma	3	7.50
Colombia	1	2.50
Democratic Republic of Congo	3	7.50
Iran	1	2.50
Iraq	4	10.00
Nepal	2	5.00
Pakistan	1	2.50
Palestine	1	2.50
Russia	2	5.00
Somalia	1	2.50
Syria	5	12.50
Tibet	1	2.50

Years in the US		
2-4	12	30.00
5-9	16	40.00
10+	12	30.00
Level of Education		
None/Elementary School	6	15.00
Middle School	3	7.50
High School	20	50.00
College	11	27.50
Employment Status		
Employed	20	50.00
Unemployed	20	50.00
Language Used for Interview		
English	15	38.00
Non-English	25	62.00

Health Information

Before the pandemic, 90% of participants communicated with their healthcare providers through in-person clinic visits and approximately 40% used the phone. Less than 15% of respondents used the electronic patient portal or email, or did not communicate with their provider at all (Table 2). TV played an important role for refugees in acquiring information during the pandemic, with 68% of refugees using it to learn about COVID-19 and 56% using it to learn about the COVID-19 vaccines. Other major avenues for accessing information about COVID-19 included social media platforms (44%) such as Facebook, WhatsApp, Instagram, or YouTube, the Internet (34%), healthcare providers (32%) and friends (24%). Healthcare providers (46%) were the second major source for acquiring COVID-19 vaccine information; the majority (56%) of respondents preferred receiving this information in person at the clinic and 44% preferred a phone call (Table 2).

Workplace and COVID-19 Information

Of all the participants who were working during the pandemic (n=33), more than 95% were informed by their employers about masks, handwashing, social distancing, and when to quarantine; 82% of participants stated their workplaces provided vaccine information and 76% said they were provided with COVID-19 testing information (Table 2). More than 90% of participants' workplaces implemented prevention measures such as requiring and providing masks, enforcing disinfection policies, and contact tracing to keep workers safe. Over half (59%) of workplaces required temperature checks and 47% required their employees to quarantine if they were exposed to COVID-19 or were sick. Approximately half (52%) of participants stated they had paid time off if they needed to quarantine. The rest of the participants did not have paid time off or were unsure about their employer's policy regarding paid time off (Table 2).

Table 2. Methods and preferences for receiving information about COVID-19

Before COVID-19 pandemic, how did you communicate with healthcare provider?		
Clinic Visits	37	90.0
Phone	16	39.0
Electronic patient portal	5	12.0
No Communication	1	2.4
How did participants access COVID-19 information?		
TV	28	68.0
Social Media	18	44.0
Internet	14	34.0
Healthcare Providers	13	32.0
Friends	10	24.0
Family	7	17.0
Work	7	17.0
Health Department	3	7.3
How did participants access COVID-19 vaccine information?		
TV	23	56.0
Healthcare Providers	19	46.0
Internet	5	12.0
Family	6	15.0
Social Media	6	14.4
Friends	5	12.0
Work	5	12.0
How do participants prefer to receive COVID-19 vaccination information from their providers?		
Clinic	23	56.0
Phone	18	44.0
Electronic patient portal	5	12.0
Letter	4	9.8
Email	1	2.4
What information did participants' workplaces provide?		
Masks	34	100.0
Social Distancing	34	100.0
When to Quarantine/Isolate	34	100.0
Handwashing	33	97.1
Vaccine Information	28	82.4
How to Get Tested	26	76.5
What measures did workplaces take to keep employees safe?		
Requiring Masks	33	97.1
Enforcing Disinfecting/Cleaning Policies	33	97.1
Contact Tracing	32	94.2
Providing Masks	31	91.2
PTO if Quarantine/Isolation Needed	18	52.9
Temperature Checks	20	58.8
Mandatory Quarantine if Exposed/Sick	16	47.1

Vaccination Status and Perception

Vaccination rates were high among study participants (85%) and of the six unvaccinated participants, four patients stated they were planning on getting vaccinated soon. One participant said she did not plan on getting vaccinated because a previous procedure had an unfavorable outcome and made her feel uncomfortable about getting the vaccine. She also cited allergies as a reason for not getting the

vaccine. The other participant who was not planning on getting vaccinated stated that neither she nor anyone she knew had been infected with COVID-19, so she did not feel an immediate need to get the vaccine. Of the patients who were vaccinated, safety was cited as the major reason for getting vaccinated in most cases. Almost three-quarters (71%) of participants chose to get vaccinated for personal safety reasons and 18% decided to get vaccinated out of concern for family and/or friends (Table 3).

Table 3. Reasons why participants received the COVID-19 vaccine

	N	%
Personal Safety	24	70.59
Others' Safety	6	17.65
Healthcare Provider Recommendation	4	11.76
Social Norm	4	11.76
Return to Normalcy	3	8.82
Work Requirement	2	5.88

Discussion

To our knowledge, this is the first study that investigated refugees' experiences in gaining COVID-19 information during the COVID-19 pandemic. In addition, we examined refugees' communication channels with healthcare providers, the role of their workplaces during the pandemic, and their vaccination rates and perceptions. We discuss all of these factors since they impact how refugees will act on the information they gain about COVID-19.

TV was a major source of information about COVID-19 and the COVID-19 vaccines among study participants. Previous challenges with television communication were identified during the H1N1 pandemic, including inconsistent messaging. Additionally, audio communication did not match the video footage and key messages about preventative measures were lost (Luth et al., 2013). For many refugees who use local and national news to gather

information, there could be more confusion added due to language and cultural barriers when compared to the general population. Many refugees come from a collectivistic culture that differs starkly from general Western culture which places emphasis on individuality. Differences in culture also stem from factors such as religion, economic values, communication styles, importance of family, etc. Refugees usually find themselves attempting to balance their life according to both cultures, which can be difficult since sometimes the two cultures stand in opposition. Without considering these differences in cultures, important information can be lost or miscommunicated to refugees since these factors shape how they see the world and act in it.

While not explored in this study, other types of TV programming may offer better COVID-19 education for refugees. For example, a large literature supports the utility of telenovelas to provide health education in

Spanish-speaking communities for a variety of health topics. Wilkin et al. (Wilkin et al., 2007)) demonstrated that following a breast cancer storyline in a telenovela, calls to national cancer hotlines increased, Spanish speaking viewers indicated they gained specific knowledge from the program, and Spanish speaking males were more likely to recommend women have a mammogram. Sharing information via short TV and film clips can particularly benefit those who have literacy barriers (Lee et al., 2013). This type of education, called entertainment education, (Singhal and Rogers, 2004)) is more common in low and middle income countries where media markets are less saturated; however, U.S. soap operas and drama series have included storylines about specific health conditions (e.g., HIV, HPV), which may be linked with short-term increases in health knowledge (Beck, 2004; Morgan et al., 2014; Wilkin et al., 2007). A key limitation of current entertainment education in the U.S. is that storylines are often not targeted to specific minority groups, limiting the diversity of viewership (Beacom and Newman, 2010)). Developing culturally appropriate entertainment education about COVID-19 and COVID-19 vaccines may be worth exploring in refugee communities.

Another major source of information for COVID-19 was social media, including Facebook, Instagram, WhatsApp, YouTube, Twitter, etc. Advantages of social media include immediate access and wide availability of information. For refugees, content can be more culturally and linguistically appropriate since the information generally comes through their social connections. However, the limitation is that the information may not be reliable (Gabarron et al., 2021). Over the last several years, credible organizations and medical journals have taken to social media platforms, allowing for the dissemination of reliable scientific information (Goel and

Gupta, 2020). Connecting refugees to the appropriate social media platforms and catering this content in a culturally and linguistically appropriate manner can pave the way forward for readily providing valid information to this target audience.

Healthcare providers played an important role in delivering vaccine information to study participants. Studies have found that physicians are the most important influencers of vaccine decision-making (Schaffer DeRoo et al., 2020). Specifically, primary care providers (PCPs) are generally trusted by their patients due to the nature of their long-term relationship. PCPs could counsel patients on their behavioral choices by helping them decipher if the information acquired through other sources such as TV or social media is reliable.

Study participants stated they preferred communicating with their healthcare providers in-person or over the phone to receive vaccine information rather than receiving a letter in the mail or an email. There could be a few reasons to explain this. For one, many refugees are not fluent in English and letters/emails are likely sent to patients in English. Patients may also not be literate in their native language. For this study, interviews were conducted in a total of thirteen different languages, including English. Translating written information, which possibly includes medical vocabulary, in so many different languages might not be feasible. However, national agencies such as the CDC have COVID-19 materials available in multiple languages and could be used as an adjunct for patient education in face-to-face encounters. Professional interpreter services can be used during in-person visits or by phone. In-person visits also allow for other communication avenues between the patient and the provider, such as body language or facial expressions, that are otherwise not possible. Second, in-person visits and phone

calls allow for questions and quicker back-and-forth interaction which is not permissible through the other avenues of communication. However, phone calls or in-person visits where family members attend clinic together make privacy difficult which might be more available through a platform such as email (Brickhill-Atkinson and Hauck, 2021). Another limitation of in-person visits and phone calls is the limited time of providers. Having other healthcare workers such as nurses or social workers give COVID-19 information during clinic visits or by phone would limit the burden on PCPs. Additionally, peer educators are shown to be effective in several studies for communicating health information to refugees. Sievert et al. (Sievert et al., 2018)) described a peer education technique to provide information on chronic Hepatitis B infection that was accepted in Afghan and Rohingya refugee populations. The peer educators communicated health information in a participatory style by incorporating story-telling, community member questions, and commentary throughout the educational program. Peer education has also been successfully implemented in refugee populations to communicate information about HIV prevention (Woodward et al., 2014) and sexual and reproductive health (McMichael and Gifford, 2009). Participants' preference for in-person and/or telephone communication highlight an opportunity to reach refugee populations; engaging peer educators could reduce burden on providers and clinic staff, who are typically providing COVID-19 health information. Additionally, peer education allows for expansion beyond clinical populations, as refugees may not be established with a primary care doctor or may be awaiting their initial visit. For instance, Lee et al. (Lee et al., 2013) found that refugee women perceived community talks/information sessions or talks given

during English classes to be the most useful mechanisms of receiving health information. Faith-based groups can also be instrumental in sharing health information (Lloyd, 2014). The primary challenge to this type of information dissemination during the pandemic was the restrictions on in-person gatherings, limiting opportunities for visiting places of worship. However, with the availability of the vaccine and reduction in restrictions, attendance in places of worship is increasing, which presents an opportunity to educate refugees about the current state of the pandemic and vaccine updates as boosters and vaccines for younger children become available. Additionally, many religious organizations have adapted by offering virtual options in which this information could be provided.

Limitations

This study had several limitations. The sampling was nonrandom, and all study participants were recruited at a single academic hospital. This potentially limits the generalizability of the results to a larger refugee population. Additionally, recruiting patients at a hospital means we did not include any refugees who do not have access to care. However, we did sample refugees from a variety of world regions to ensure there was a diverse representation of voices. Collectively the study contains a diverse viewpoint, but the small sample size limits the ability to establish any significant patterns between country of origin and various responses. Despite using professional interpreter services, language and cultural barriers could have resulted in a misinterpretation of the participants' responses. Because most of the interviews were performed in the clinic setting and all of them were conducted by a UVA medical student, participants may have felt obligated to report that they have understood public health safety protocols and have been

following those protocols. Finally, almost all participants either had been vaccinated or were planning to receive their vaccine. As such, we were not able to learn about the experiences of refugees who were hesitant to receive the vaccine, which may have influenced the results. Prior to this study, there was extensive outreach in the refugee community through a collaborative effort by the IFMC, hospital, refugee resettlement agency, and local public health district to provide information about COVID-19 and assist with vaccination scheduling. This likely had an impact on vaccine uptake and could be why study participants had high vaccination rates. Despite this, the results still offer valuable insight for health communication channels with refugee patients.

Conclusions

As the COVID-19 pandemic continues to wax and wane in its intensity, it will be important to continue communicating effectively with refugee communities. This study identified how refugees have accessed public health information during the COVID-19 pandemic and how healthcare providers can play a role in providing them with information. The results suggest that previously used health communication techniques, such as entertainment education and peer educators, may also be useful channels for COVID-19 communication with refugees. While the present study did not examine this specifically, participants' preference for in-person or telephone interactions and high prevalence of TV as a source of information support leveraging these previously successful efforts. Future research is needed to elucidate how these means of communication could be adapted for COVID-19 education in refugee communities.

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