








RESEARCH ARTICLE

# Perspectives of refugees and community pharmacists on refugees' healthcare situation in Lebanon: Implication on pharmacy education and workforce

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## Abstract

**Background:** Pharmacists serve on the frontline of healthcare provision for refugees. This study aimed to explore (1) Syrian refugees' healthcare status from the perspectives of the refugees and Lebanese community pharmacists; (2) refugees' barriers to healthcare access; and (3) the challenges pharmacists encounter in the provision of healthcare. **Methods:** A cross-sectional study was conducted during July-August 2019 in Bekaa Region. Syrian refugees and Lebanese community pharmacists anonymously completed two different questionnaires. SPSS Statistics Version 22.0 was used to analyse the data. **Results:** A total of 671 refugees and 103 pharmacists responded to the questionnaires. The responding refugees and pharmacists identified the inability to afford physician and drug fees as the primary and secondary barriers to healthcare access for refugees; while health illiteracy was the primary challenge identified by the responding pharmacists when providing care to refugees. **Conclusion:** Addressing the determinants of health will reduce healthcare barriers and challenges substantially, thus fostering overall improvements in the health of refugees.

## Introduction

As the Syrian crisis enters its eleventh year, and as has been the case since 2014, the main country of origin for refugees is still Syria, with 6.7 million refugees reported at the end of 2020 (United Nations High Commissioner for Refugees [UNHCR], 2021). Syrian refugees are hosted by 128 countries; the vast majority (80%) of refugees remained in neighbouring countries or in the region, with Lebanon hosting 14.7% (Refugees Operational Data Portal by UNHCR, n.d.-a; UNHCR, 2021). Currently, Lebanon hosts the largest number of Syrian refugees relative to its national population, with the number of

registered Syrian refugees in Lebanon being 839,788 persons by the end of January 2022, as reported by UNHCR (Refugees Operational Data Portal by UNHCR, n.d.-b). The highest percentage of refugees reside in Bekaa (39.1%) (Refugees Operational Data Portal by UNHCR, n.d.-b). It is estimated that 73% of all refugees live in residential buildings; an estimated 18% live in fragile areas, which are either isolated tents or informal tented settlements, while the remaining 9% live in non-residential structures (UNHCR Lebanon, n.d.).

Refugees are a vulnerable group who suffer from significant and complex health needs as a result of inadequate nutrition, psychological trauma, and poor

access to health services (Chuah *et al.*, 2018). Since pharmacists remain among the most trusted, ethical, and accessible healthcare professionals, they serve on the frontline of healthcare provision for this vulnerable group. Pharmacists can play a vital role in managing infectious diseases and other chronic and noncommunicable diseases that refugees might present with. These diseases may include diabetes, obesity, hyperlipidemia, chronic respiratory diseases, and hypertension, along with mental health issues such as anxiety, depression, and posttraumatic stress disorder, all of which warrant complex therapies (Carter & Bonanni, 2019). Furthermore, pharmacists can review refugees' immunisation schedules, counsel them regarding vaccine-preventable diseases, and can act as key advocates for healthy lifestyle modifications that can prevent the development of various diseases (Carter & Bonanni, 2019).

However, many barriers restrict refugees from accessing healthcare, including poor health literacy, which was highlighted as having a significant impact on refugees' abilities to identify healthcare services and navigate the health system (Chuah *et al.*, 2018). This poor health literacy results in unfamiliarity with healthcare services (Chuah *et al.*, 2018). In addition, it can lead to a lack of understanding of treatments, which can have a negative impact on compliance with medical recommendations (Kotovicz *et al.*, 2018). Communication and language barriers are also among the most important obstacles; they are considered to be key determinants in influencing refugees' overall healthcare experience since they could result in miscommunication, misdiagnosis, and lack of appropriate follow-up (Chuah *et al.*, 2018; Kotovicz *et al.*, 2018). Cultural differences are additional barriers in host countries where public health services are usually not customised according to the cultural beliefs and practices of refugees (Chuah *et al.*, 2018). It is also important to note that refugees' ability to pursue, trust, and accept healthcare services can be highly affected by their social and cultural beliefs and practices (Chuah *et al.*, 2018). Financial issues are key barriers to healthcare access. Refugees may not consider health as a main priority because they struggle to meet other basic needs such as shelter and food, especially among those with chronic diseases that necessitate regular follow-up (Chuah *et al.*, 2018). Finally, protection barriers are present in those who lack documentation, so they are often fearful of seeking treatment (Chuah *et al.*, 2018).

Robertshaw and the authors (2017) grouped the challenges that healthcare professionals, including pharmacists, often face when providing care to refugees into three different categories. Firstly, the "healthcare encounter" encompasses a trusting relationship, communication, cultural understanding, time, health and social conditions (Huster *et al.*, 2014). Language

barriers, cultural variations, and differences in health literacy levels, in addition to refugees' physical, psychological and social problems, present challenges to pharmacists. This necessitates time from the pharmacists to address refugees' complex health needs while building trust and achieving cultural understanding. Secondly, "resettlement" is a challenge, and finally, there are "challenges encountered in the healthcare system", which include training and guidance, professional support, connecting with other services, organisation, resourcing and capacity (Robertshaw *et al.*, 2017). Therefore, pharmacists should have sufficient training, education, guidance, workforce, and psychological support to provide specialised services for refugees.

Hence this study aimed to (1) explore Syrian refugees' healthcare status from the perspectives of the refugees and Lebanese community pharmacists; (2) evaluate refugees' barriers to healthcare access; and (3) the challenges pharmacists encounter in the provision of healthcare.

## Methods

### Study setting

The study was conducted in July and August 2019 in the Bekaa Region, where the highest percentage of Syrian refugees reside.

### Study design

A cross-sectional study was conducted using two different questionnaires prepared by the research team; one for the Syrian refugees and another one for the Lebanese community pharmacists. To ensure validity, the questionnaires were pre-tested and evaluated by researchers to ensure clarity of the questions, and comments were integrated into the final versions of the questionnaires.

All research questions were addressed by the two questionnaires. The Syrian refugees' questionnaire was divided into three sections: (1) demographic characteristics, (2) healthcare status, and (3) barriers to healthcare access (Tables I-IV). The Lebanese community pharmacists' questionnaire was also divided into three sections: (1) demographic characteristics, (2) Syrian refugees' healthcare status, and (3) the refugees' barriers to healthcare access (from the pharmacists' perspectives) and the pharmacists' challenges when providing care to the refugees (Tables I-V).

### Outcomes measures

The primary outcomes of this study were to (1) investigate the Syrian refugees' healthcare status and their barriers to healthcare access and (2) evaluate the Lebanese community pharmacists' experiences with the Syrian refugees and the challenges they encounter in the provision of healthcare. The secondary outcome measure was the major site where Syrian refugees seek healthcare.

### Data collection

The study's aims were explained to Syrian refugees entering community pharmacies and to community pharmacists in Bekaa Region. Refugees and pharmacists who agreed to participate provided informed oral consent and were asked to fill out the web-based questionnaires. The Syrian refugees' questionnaires were filled through face-to-face interviews conducted by pharmacy interns. These pharmacy interns were undergoing their pharmacy practice experience in community pharmacies located in Bekaa Region. The Lebanese community pharmacists' questionnaires were self-administered.

### Data analysis

Collected data were encoded and then analysed using Statistical Package for the Social Sciences (SPSS) Version 22.0.

### Ethical considerations

The study was approved by the Lebanese International University Research Committee. Participants' privacy, anonymity, and confidentiality were protected by using codes, limiting access to data to the study team, and securely storing data.

## Results

### Demographic characteristics

A total of 671 Syrian refugees responded to the questionnaire, with a mean age of 37.6 years, out of which 52.9% were females, 49.3% were non-smokers, 76% were married, 61.8% living in rented houses, with 48.9% having between six and ten household members. In addition, low education levels were noted, where more than half reported reaching primary education or not receiving education at all. The 103 responding Lebanese community pharmacists had an average age of 36.3 years, an average of 10 years of community pharmacy experience, and 45.6% were females. Demographic characteristics are detailed in Table I.

**Table I: Demographic characteristics**

<b>Responding Syrian refugees</b>		
	<b>N</b>	<b>%</b>
<b>Gender</b>		
Female	355	52.9
Male	316	47.1
<b>Age</b>		
18-29 Years	239	35.6
30-39 Years	160	23.9
40-49 Years	119	17.7
50-59 Years	87	13
≥ 60 Years	66	9.8
<b>Educational background</b>		
No Education	193	28.8
Primary	274	40.8
Secondary	115	17.1
Technical School	32	4.8
University	57	8.5
<b>Marital status</b>		
Married	510	76
Single	118	17.6
Widowed	29	4.3
Divorced	14	2.1
<b>Smoking status</b>		
No	331	49.3
Yes	322	48
Former Smoker	18	2.7
<b>Place of residence</b>		
Rented House	415	61.8
Camp	161	24
Isolated Tent	78	11.6
Homeless	17	2.6
<b>Number of household members</b>		
1-5	284	42.3
6-10	328	48.9
11-15	44	6.6
≥ 16	15	2.2
<b>Employment</b>		
Full-time Employee	198	29.5
Part-time Employee	249	37.1
Unemployed	224	33.4
<b>Responding community pharmacists</b>		
	<b>N</b>	<b>%</b>
<b>Gender</b>		
Female	47	45.6
Male	56	54.4
<b>Age</b>		
25-29 Years	25	24.3
30-39 Years	43	41.7
40-49 Years	25	24.3
50-59 Years	10	9.7
<b>Years of practicing community pharmacy</b>		
1-5	39	37.9
6-10	27	26.2
11-15	13	12.6
16-20	11	10.7
> 20	13	12.6
<b>Marital status</b>		
Married	70	68
Single	31	30.1
Divorced	2	1.9
<b>Average monthly household salary</b>		
< 750,000 L.L.	2	2
750,000 - 1,499,000 L.L.	13	12.6
1,500,000 - 2,999,000 L.L.	24	23.3
≥ 3,000,000 L.L.	34	33
No response	30	29.1

### Chronic conditions

There were varying chronic conditions reported; however, the most common conditions stated by the responding Syrian refugees were hypertension at 23.4%, diabetes at 17.4%, and cardiovascular diseases (CVD) at 11.2%. Of note is that psychiatric disorders were only reported by 1.6%, while 43.7% did not report any chronic conditions at all. From the community pharmacists' perspective, the most common chronic conditions that Syrian refugees sought help for were hypertension and diabetes (ranking first and second), with the third being lung disorders (Table II).

**Table II: Syrian refugees' most common chronic conditions**

<i>From the responding Syrian refugees' perspective</i>		
	N	%
Hypertension	157	23.4
Diabetes	117	17.4
Cardiovascular Disease	75	11.2
Eye Disease	67	10
Bone Disease	66	9.8
Lung Disorder	50	7.5
Kidney Disease	29	4.3
Liver Disease	14	2.1
Psychiatric Disorder	11	1.6
Cancer	7	1
Others	54	8
None	293	43.7
<i>From the responding community pharmacists' perspective</i>		
	N	%
Hypertension	67	65
Diabetes	60	58.3
Lung Disorder	40	38.8
Cardiovascular Disease	32	31.1
Eye Disease	23	22.3
Bone Disease	21	20.4
Psychiatric Disorder	20	19.4
Kidney Disease	16	15.5
Liver Disease	4	3.9
Cancer	2	1.9
None	8	7.8

### Acute conditions

Acute conditions were also prevalent among responding Syrian Refugees in the preceding month of the study. The most common acute conditions reported were diarrhoea in 30.4%, followed by fever in 22.1% and respiratory illness in 16.4%. Of note also here is that 44.9% did not report any acute conditions (Table III). Of those who responded that they had acute conditions, 51% didn't seek treatment for them. From the community pharmacists' perspective, Syrian refugees primarily sought their help for fever (83.5%), diarrhoea (78.6%), and dermatological conditions (66%), which ranked third (Table III). In addition to seeking treatment recommendations for acute and chronic conditions, 74.8% of the responding

pharmacists reported that Syrian refugees also seek family planning advice from them.

**Table III: Syrian refugees' most common acute conditions**

<i>From the responding Syrian refugees' perspective</i>		
	N	%
Diarrhoea	204	30.4
Fever	148	22.1
Respiratory Illness	110	16.4
Injuries	68	10.1
None	301	44.9
<i>From the responding community pharmacists' perspective</i>		
	N	%
Fever	86	83.5
Diarrhoea	81	78.6
Dermatologic Condition	68	66
Injuries	51	49.5
Respiratory Illness	43	41.7

### Symptoms of distress

Symptoms of distress were reported by the responding refugees, including stress (34.3%), insomnia (22.8%), and anxiety (22.2%). However, psychological treatment and support were not sought by 88.1% of them for these symptoms.

### Major site of healthcare

Furthermore, when the Syrian refugees were questioned about the major site where they seek healthcare, the highest percentage (45.8%) cited pharmacy as their major site, followed by health centres (dispensary) (39.9%), private clinics (7.7%), hospital (4.3%), and primary healthcare centre (2.2%).

### Barriers to healthcare access

The responding refugees identified financial issues as the most prevalent barrier to their healthcare access. Financial issues were characterised by an inability to afford physician and drug fees (72% and 49.2%, respectively), while long waiting hours were also seen as a barrier (17.1%). The responding community pharmacists identified the inability to afford physician and drug fees as the primary and secondary barriers to refugees' healthcare access (37.9% and 26.2%, respectively), with poor health literacy (10.7%) identified as the third barrier (Table IV).

### Primary challenges when providing care to refugees

Health illiteracy was the primary challenge identified by the responding community pharmacists when providing care to Syrian refugees (57.3%), followed by time availability (26.2%) and language barriers (20.4%) (Table V).

**Table IV: Syrian refugees' barriers to healthcare access**

<b>From the responding Syrian refugees' perspective</b>		
	N	%
Can't afford physician fees	483	72
Can't afford drug fees	330	49.2
Long waiting hours	115	17.1
Health illiteracy	100	14.9
Believe there is a difference in the type of care received by refugee families compared to other community members	97	14.5
Don't think it is important to seek care for	86	12.8
Communication barriers	80	11.9
Cultural differences	75	11.2
Scheduling conflicts	55	8.2
Lack of awareness of the availability of supported services	50	7.5
Don't trust the healthcare team	40	6
<b>From the responding community pharmacists' perspective</b>		
	N	%
Can't afford physician fees	39	37.9
Can't afford drug fees	27	26.2
Health illiteracy	11	10.7
Don't think it is important to seek care for	7	6.8
Lack of awareness of the availability of supported services	5	4.9
Believe there is a difference in the type of care received by refugee families compared to other community members	4	3.9
Cultural differences	3	2.9
Communication barriers	3	2.9
Scheduling conflicts	2	1.9
Don't trust the healthcare team	2	1.9

**Table V: Primary challenges identified by the responding community pharmacists when providing care to Syrian refugees**

	N	%
Health illiteracy	59	57.3
Time-consuming	27	26.2
Language barriers	21	20.4
Cultural differences	20	19.4
Difficulty dealing with their social problems	17	16.5
Difficulty dealing with their physical problems	14	13.6
Need more workforce for caring for refugees	14	13.6
Difficulty dealing with their psychological problems	12	11.7
Trust issues with the pharmacists	8	7.8
No connection with other health or social services	8	7.8
My organization is not well-equipped to provide specialised services for refugees	6	5.8
Lack of training, education, and guidance needed to work with refugees	3	2.9
Lack of professional psychological support to deal with refugees	2	1.9

## Discussion

From both the Syrian refugees and community pharmacists' perspectives, the most common chronic conditions that Syrian refugees present with are hypertension and diabetes (ranking first and second), with CVD ranking third and fourth according to the refugees and pharmacists, respectively. Previous studies that have evaluated chronic diseases among the general Syrian refugee population in Lebanon noted the high prevalence of hypertension (21%), CVD (11%), and diabetes (10%), while those aged 60 years and

above reported a higher prevalence of hypertension (60%), CVD (30%), and diabetes (47%) (Huster *et al.*, 2014; Strong *et al.*, 2015). Additionally, UNHCR, in their "Health access and utilization survey among Syrian refugees in Lebanon", noted that the most common chronic conditions were hypertension (29%), followed by diabetes (20%), asthma/pulmonary disease (19%), and heart disease (13%) (UNHCR, 2020). This highlights the vital role that community pharmacists can play in the prevention and management of noncommunicable diseases (NCDs). In fact, the International Pharmaceutical Federation (FIP), in their statement of

policy "The role of pharmacists in noncommunicable diseases", states that pharmacists can employ their expertise in NCDs to promote prevention strategies, contribute to appropriate disease management, and improve medication adherence in order to optimise treatment outcomes, reduce the clinical, social and economic burden of disease, and enhance patients' quality of life (International Pharmaceutical Federation, 2019).

The most common acute conditions were diarrhoea, fever, and respiratory illnesses, with a different ranking from the Syrian refugees and community pharmacists' perspectives. This is consistent with the results of the Joint Nutrition Assessment published by the United Nations International Children's Emergency Fund (UNICEF), where the prevalence of reported diarrhoea, cough, and fever among Syrian refugees in Bekaa during the previous two weeks before data collection were 26.7%, 33.1%, and 36.4% respectively (UNICEF, 2014). Furthermore, outbreaks of acute watery diarrhoea have been considered by the World Health Organization (WHO) as a threat in Lebanon, given the frequent migration of people between informal dwellings that have limited access to healthcare services (World Health Organization, 2015). Upper respiratory tract symptoms recorded the highest prevalence (32%), followed by joint and back pain (20%) and stomach pain (14%) (UNHCR, 2020). In neighbouring countries, Ergönül and authors in 2020 reported a total of 1,299,209 cases of respiratory tract infection and 158,058 cases of diarrhoea, including 59 cases of bloody diarrhoea in temporary shelters for Syrian refugees in Turkey between 2012 and 2016. In Jordan, Al-Rousan and colleagues in 2018 stated that Syrian refugees primarily sought healthcare for acute conditions, including respiratory illness, fever, diarrhoea, and injuries. These results stress the important role that pharmacists can play in the management of acute conditions, whether in terms of providing treatment whenever applicable, referral when needed, and counselling in order to optimise pharmacologic and nonpharmacologic therapy, thus improving overall patient health.

Symptoms of distress were also reported by Syrian refugees, with the most common being stress, followed by insomnia and anxiety. However, psychological treatment and support were not sought by the majority of refugees, highlighting the significant stigma towards mental illness among them. In Lebanon, many studies that have been conducted reported a prevalence of mental health disorders among refugees (Karam *et al.*, 2016; Lama *et al.*, 2016; Kazour *et al.*, 2017; Hendaus *et al.*, 2021). Community pharmacists are often the first port of call for patients seeking advice for all kinds of ailments, including communicable and

noncommunicable diseases; this was shown in this study where the majority of the refugees selected pharmacy as the major site for seeking healthcare. Similar results have been reported where the pharmacy was considered the primary site to seek care for acute and chronic conditions (UNHCR, 2020). Hence, when it comes to the management of psychiatric disorders, pharmacists are in a perfect position as the first point of contact. Pharmacists can detect the presence of symptoms of distress and then perform a triage role by directing patients to other healthcare professionals. Kamusheva and authors in 2020 concluded that pharmaceutical care services for patients with depression could lead to the improvement of the patient's condition and quality of life, reduction of side effects, and identification, as well as the management of potential or actual drug-related problems. In addition, pharmacists can collaborate with multiple healthcare providers to achieve targeted therapeutic outcomes (Kamusheva *et al.*, 2020). In fact, many guidelines, reports, and frameworks describe the current, crucial, and emerging roles of pharmacists in mental healthcare by highlighting their input in screening, initiating and maintaining treatment; providing medicines information; and improving compliance (Pharmaceutical Society of Australia, 2013; International Pharmaceutical Federation, 2015; Royal Pharmaceutical Society England, 2018).

With respect to barriers to healthcare access, the inability to afford physician fees and drug fees ranked first and second from both the Syrian Refugees' and community pharmacists' perspectives, while health illiteracy ranked third and fourth according to the pharmacists and refugees, respectively. When comparing this study's results to the results from the UNCHR survey, it was shown that the main barriers to accessing care for chronic conditions were the inability to pay clinic fees and drugs fees, while the main reasons for not accessing care for acute conditions were the inability to pay clinic fees, with both lacks of knowledge of where to go and thinking care was not necessary ranking second (UNHCR, 2020). Other studies conducted in Jordan have reported that financial issues are one of the main barriers to accessing health services among Syrian refugees (Gammouh *et al.*, 2015; Doocy *et al.*, 2016; Al Rousan *et al.*, 2018; Dator *et al.*, 2018). Simultaneously, community pharmacists had challenges when providing care to Syrian refugees with health illiteracy, time limitations, and language barriers, ranking first to third. Other studies have reported that the provision of healthcare for refugees is affected by cultural differences, language barriers, health illiteracy, time constraints, and lack of knowledge and skills (Kotovicz *et al.*, 2018; Kavukcu & Altıntaş, 2019). Both refugees' barriers and

pharmacists' challenges can result in poor healthcare access among refugees, ultimately leading to fewer preventive services, and suboptimal management of communicable and noncommunicable diseases. This could result in complications, poorer quality of life and psychological health, and thus an overall poorer health outcome (Chuah *et al.*, 2018). In order to overcome the refugees' and pharmacists' challenges, and to improve the quality of healthcare services offered to refugees, many strategies can be implemented by pharmacists. Pharmacists' awareness of the common health conditions among refugees can help them deal with their complex physical and psychological conditions, especially if clinical guidelines for refugee healthcare are established (Robertshaw *et al.*, 2017). In addition, pharmacists should be aware of the health and social care services and resources available for refugees. This will enable the establishment of referral pathways and the provision of information on how refugees can access healthcare services in order to meet their comprehensive healthcare needs (Robertshaw *et al.*, 2017). Furthermore, pharmacists should accomplish cultural competence, establish trust, and integrate effective communication (verbal and nonverbal) into their practice. This should be done by taking into consideration refugees' cultural and health beliefs, their education and health literacy levels, and language and communication barriers, following a patient-centred cross-cultural approach (Robertshaw *et al.*, 2017).

### **Strengths**

This study addresses the Syrian refugees' healthcare situation from both the refugees' as well as the Lebanese community pharmacists' perspectives, as such, the results are essential to determine the necessary education and training needed by pharmacists in order to best care for this vulnerable patient population.

### **Limitations**

The study is limited only to the Bekaa region; as such, the results cannot be extrapolated to other areas in Lebanon. However, Bekaa was selected given the fact that the highest percentage of Syrian refugees reside there. Also, the Syrian refugees' questionnaire was administered through in-person interviews rather than by self-administered questionnaires. In-person interviews have the potential to introduce bias due to the potential provision of socially desirable responses by refugees. However, this method of data collection was adopted since in-person interviews are more effective in overcoming any language barriers and avoid potential misinterpretations of questions. In

addition, senior researchers trained the data collectors in order to ensure standardised data collection, although when conducting the actual fieldwork, there might have still been interviewer bias.

Finally, the current study only assessed the Syrian refugees' healthcare status and barriers to healthcare access from two perspectives, the Syrian refugees' and Lebanese community pharmacists'. The findings highlight the need for further research with a larger sample and inclusion of other healthcare providers' perspectives.

### **Conclusion**

Addressing the various social, cultural, and economic determinants of health will reduce healthcare barriers substantially and foster overall improvements in the health of refugees. Thus, by embracing opportunities, overcoming challenges, and developing innovative solutions, pharmacists in all settings can play a vital role in ensuring quality care for refugees, consequently making a difference in their lives.

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### **Conflict of interest**

The authors declare no conflict of interest.

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### **References**

- Al-Rousan, T., Schwabkey, Z., Jirmanus, L., & Nelson, B.D. (2018). Health needs and priorities of Syrian refugees in camps and urban settings in Jordan: perspectives of refugees and healthcare providers. *Eastern Mediterranean Health Journal*, *24*(03), 243–253. <https://doi.org/10.26719/2018.24.3.243>

- Carter, K.L., & Bonanni, S. (2019). Role of the pharmacist in refugee health. *American Journal of Health-System Pharmacy*, **76**(6), 403–406. <https://doi.org/10.1093/ajhp/zxy011>
- Chuah, F.L.H., Tan, S.T., Yeo, J., & Legido-Quigley, H. (2018). The health needs and access barriers among refugees and asylum-seekers in Malaysia: A qualitative study. *International Journal for Equity in Health*, **17**, Article 120. <https://doi.org/10.1186/s12939-018-0833-x>
- Dator, W., Abunab, H., & Dao-ayen, N. (2018). Health challenges and access to healthcare among Syrian refugees in Jordan: a review. *Eastern Mediterranean Health Journal*, **24**(7), 680–686. <https://doi.org/10.26719/2018.24.7.680>
- Doocy, S., Lyles, E., Akhu-Zaheya, L., Burton, A., & Burnham, G. (2016). Health service access and utilization among Syrian refugees in Jordan. *International Journal for Equity in Health*, **15**, Article 108. <https://doi.org/10.1186/s12939-016-0399-4>
- Ergönül, Ö., Tülek, N., Kayı, I., Irmak, H., Erdem, O., & Dara, M. (2020). Profiling infectious diseases in Turkey after the influx of 3.5 million Syrian refugees. *Clinical Microbiology and Infection*, **26**(3), 307–312. <https://doi.org/10.1016/j.cmi.2019.06.022>
- Gammouh, O.S., Al-Smadi, A.M., Tawalbeh, L.I., & Khoury, L.S. (2015). Chronic diseases, lack of medications, and depression among Syrian refugees in Jordan, 2013-2014. *Preventing chronic disease*, **12**, E10. <https://doi.org/10.5888/pcd12.140424>
- Hendaus, M., Mourad, N., Younes, S., Hammoudi, D., Rahal, M., & Basheti, I. (2021). The psychological impact of the Syrian crisis on refugees living in Lebanon. *Perspectives in Psychiatric Care*, **57**(3), 1376–1381. <https://doi.org/10.1111/ppc.12700>
- Huster, K. M., Patterson, N., Schilperoord, M., & Spiegel, P. (2014). Cesarean sections among Syrian refugees in Lebanon from December 2012/January 2013 to June 2013: probable causes and recommendations. *Yale Journal of Biology and Medicine*, **87**(3), 269–288. [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4144282/pdf/yjbm\\_87\\_3\\_269.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4144282/pdf/yjbm_87_3_269.pdf)
- International Pharmaceutical Federation. (2015). Focus on mental health: the contribution of the pharmacist (online). Retrieved April 6, 2022, from [https://www.fip.org/files/Focus\\_on\\_mental\\_health\\_final.pdf](https://www.fip.org/files/Focus_on_mental_health_final.pdf)
- International Pharmaceutical Federation. (2019). FIP Statement of policy on the role of pharmacists in noncommunicable diseases (online). Retrieved April 6, 2022, from <https://www.fip.org/file/4338>
- Kamusheva, M., Ignatova, D., Golda, A., & Skowron, A. (2020). The Potential role of the pharmacist in supporting patients with depression—a literature-based point of view. *Integrated Pharmacy Research & Practice*, **9**, 49–63. <https://doi.org/10.2147/IPRP.S239672>
- Karam, E., El Chammay, R., Richa, S., Naja, W., Fayyad, J., & Ammar, W. (2016). Lebanon: mental health system reform and the Syrian crisis. *British Journal of Psychiatry*, **209**(5), 353–358. <https://doi.org/10.1192/bjp.bp.115.172811>
- International, **13**(4), 87–89. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5619489/>
- Kavukcu, N., & Altıntaş, K.H. (2019). The Challenges of the healthcare providers in refugee settings: a systematic review. *Prehospital and Disaster Medicine*, **34**(2), 188–196. <https://doi.org/10.1017/S1049023X19000190>
- Kazour, F., Zahreddine, N.R., Maragel, M.G., Almस्ताfa, M.A., Soufia, M., Haddad, R., & Richa, S. (2017). Posttraumatic stress disorder in a sample of Syrian refugees in Lebanon. *Comprehensive Psychiatry*, **72**, 41–47. <https://doi.org/10.1016/j.comppsy.2016.09.007>
- Kotovicz, F., Getzin, A., & Vo, T. (2018). Challenges of refugee healthcare: perspectives of medical interpreters, case managers, and pharmacists. *Journal of Patient-Centered Research and Reviews*, **5**(1), 28–35. <https://doi.org/10.17294/2330-0698.1577>
- Lama, S., François, K., Marwan, Z., & Sami, R. (2016). Impact of the Syrian Crisis on the hospitalization of Syrians in a psychiatric setting. *Community Mental Health Journal*, **52**(1), 84–93. <https://doi.org/10.1007/s10597-015-9891-3>
- Pharmaceutical Society of Australia. (2013). Mental healthcare project: A framework for pharmacists as partners in mental healthcare (online). Retrieved April 7, 2022, from [https://my.psa.org.au/servlet/fileField?entityId=ka17F0000000y1WQAQ&field=PDF\\_File\\_Member\\_Content\\_Body\\_s](https://my.psa.org.au/servlet/fileField?entityId=ka17F0000000y1WQAQ&field=PDF_File_Member_Content_Body_s)
- Refugees Operational Data Portal by UNHCR. (n.d.-a). *Situation Syria Regional Refugee Response*. Retrieved April 8, 2022, from <https://data2.unhcr.org/en/situations/syria>
- Refugees Operational Data Portal by UNHCR. (n.d.-b). *Situation Syria Regional Refugee Response, Lebanon*. Retrieved April 8, 2022, from <https://data2.unhcr.org/en/situations/syria/location/71>
- Robertshaw, L., Dhesi, S., & Jones, L.L. (2017). Challenges and facilitators for health professionals providing primary healthcare for refugees and asylum seekers in high-income countries: a systematic review and thematic synthesis of qualitative research. *BMJ Open*, **7**(8), e015981. <https://doi.org/10.1136/bmjopen-2017-015981>
- Royal Pharmaceutical Society England. (2018). No health without mental health: how can pharmacy support people with mental health problems? (online). Retrieved April 7, 2022, from [https://www.rpharms.com/Portals/0/Documents/RPS%20mental%20health%20roundtable%20report%20June%202018\\_FINAL.pdf?ver=2018-06-04-100634-577](https://www.rpharms.com/Portals/0/Documents/RPS%20mental%20health%20roundtable%20report%20June%202018_FINAL.pdf?ver=2018-06-04-100634-577)
- Strong, J., Varady, C., Chahda, N., Doocy, S., & Burnham, G. (2015). Health status and health needs of older refugees from Syria in Lebanon. *Conflict and Health*, **9**, Article 12. <https://doi.org/10.1186/s13031-014-0029-y>
- UNHCR. (2020). *Health access and utilization survey among Syrian refugees in Lebanon (October 2020)*. Retrieved April 7, 2022, from <https://reliefweb.int/report/lebanon/unhcr-health-access-and-utilization-survey-among-syrian-refugees-lebanon-october-2020>
- UNHCR. (2021). *Global Trends in forced displacement in 2020*. Retrieved April 7, 2022, from <https://www.unhcr.org/global-trends-2020/>



<https://www.unhcr.org/60b638e37/unhcr-global-trends-2020>

UNHCR Lebanon. (n.d.). *Shelter*. Retrieved April 8, 2022, from <https://www.unhcr.org/lb/shelter>

UNICEF. (2014). *Joint Nutrition Assessment Syrian Refugees in LEBANON*. Retrieved May 2, 2022, from <https://data2.unhcr.org/en/documents/download/39744>

World Health Organization. (2015). *Regional Situation Report, August 2015 WHO response to the Syrian crisis*. Retrieved April 8, 2022, from [http://www.emro.who.int/images/stories/syria/Latest\\_WHO\\_SitRep\\_August2015\\_1.pdf?ua=1](http://www.emro.who.int/images/stories/syria/Latest_WHO_SitRep_August2015_1.pdf?ua=1)