The Pattern of Medication Use Amongst a Migrant Population Residing in Southern Iran: A Population-Based Study

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Abstract

Background: Iran has welcomed a large population of immigrants and refugees, which has led to new demands and priorities in many aspects of life, such as healthcare services.

Objectives: For the first time in Southern Iran, in Shiraz City, population-based research was conducted on the patterns of medication use in native non-Iranian residents.

Methods: The present cross-sectional study was conducted amongst Shiraz citizens from 2017 to 2018. The population consisted of 43 migrants. Data were collected using a multipart data form. All statistical analyses were performed using SPSS.

Results: A total of 43 Afghan migrants were included in the study. Most of them were female (72.1%), aged under 40 years (67.4%), and homemaker (62.8%) with an education level of non-completed high school diploma (97.7%). The majority of the subjects did not have insurance or family physician coverage (93%), and 85.7% got medications without prescription. The three most common medications used by the subjects were iron supplements, acetaminophen, and cold medicines.

Conclusions: Iran is now hosting Afghan nationals as one of the largest population of refugees in the world. The health conditions of the Afghan population need more attention in order to improve the health status of their community in Iran.

Keywords: Immigrant Population, Resident, Settled Refugees, Minority

1. Background

Over the past few decades, Iran has welcomed a large population of immigrants and refugees, especially the Afghan nationals migrating to various parts of Iran from the late 70s onwards due to political unrest and subsequently the war in Afghanistan. The other reason was vicinity, common language, and shared history, culture, and religious beliefs (1, 2).

According to the latest census report, a total of 1,584,000 people, 95% of all the immigrants residing in Iran, are Afghan nationals (3). Based on the recent census of immigrants in Iran, 149,654 Afghan nationals live in Fars Province (4).

The global phenomenon of migration has shaped a new social and demographic reality in the world and consequently created new demands and priorities in many aspects of life, particularly the healthcare services (2, 5-7).

Medicine is an important determinant of health, likewise public health. Hence, the pattern of medication use should be investigated to understand whether or not it is compatible with the population pattern (6, 8, 9). An ethnographic research in Iran investigated the health-seeking behavior of Afghan female immigrants (10).

2. Objectives

The present population-based study aimed at investigating the patterns of medication use in native non-Iranian residents in Shiraz, Southern Iran.

3. Methods

The present descriptive, cross-sectional study was a part of the research project relied on the results of the project. In 2017 - 2018. The study population was made up of 43 migrants of both genders, older than 18 years, and living in Shiraz. Multistage random cluster sampling was employed to select clusters corresponding to the population in each postal code area. Hence, a total of 57 main clusters were selected, each of 14 postal codes with a distance of 10 houses.

The study was conducted using the personal face to face interview, and the data were collected by a researcher-made, multipart data form, including the demographic data, the patterns of medication use, and their pharmacoepidemiology data. The participants were categorized into three groups by age at the time of data collection as less than 39, 39 to 59, and above 60 years. The participants' level of education was also categorized as non-complete high school diploma and above high school diploma. The employment status was classified into three groups of employed, jobless, and homemaker.

All statistical analyses were performed with SPSS version 25. Data were expressed as frequency (percentage), and the Chi-squared test was used to compare the self-reported health conditions (good vs. poor). The ATC code of medicines in the last prescription of the participants was clustered into three classes of cold, gastrointestinal (GI) disorder, and diabetes, based on a previously described two-step clustering method. A P-value of less than 0.05 was considered statistically significant.

4. Results

In total, 43 migrants were included in the study. All the participants had Afghan nationality. The participants had a mean age of 35.72 ± 10.97 years, ranged from 19 to 60. Most of the subjects were female (72.1%), nearly 70% under 40 years old. The most frequent occupation was homemaker (62.8%) and the majority had a non-completed high school diploma (97.7%). Table 1 shows the demographic and socioeconomic data of the participants. The majority of refugees had no insurance coverage (93%) and were not enrolled in the family physician program (88%). The rate of keeping unused medicine was high amongst the studied population (79.1%). Indeed, 85.7% of the subjects got their medicines without any prescriptions. Nearly half of the participants (53%) were at a good health status based on self-report. The frequency of keeping unused medicines was higher in participants with a poor health status (n = 7) than the ones with a good health status (n = 2) (P = 0.03).

The three most common medicines used by the subjects were iron supplements (9.1%), acetaminophen (6.8%), and cold medicines (4.5%). The most prevalent class of the medication used was cold medicines (50%), followed by GI disorder (31.8%) and diabetes (18.2%) drugs.

5. Discussion

The present study provided an overview of the medication use pattern of immigrants in Southern Iran, Shiraz. To the best of the authors' knowledge, it was the first study to evaluate medication use amongst Afghan nationals in Iran. There are several studies in the literature describing the health status of migrants in Iran. However, the majority of them deal with infectious diseases, and only a few are related to socioeconomic status and access to health services, education, and work, as important dimensions of well-being (5).

The present study worked on the data, extracted from the population-based study of Shiraz Citizens' home from 2017 to 2018, conducted by the Zour team., using the results from of the National Health Surveys as a valid, reliable tool to evaluate the pattern of medication consumption use in the past two decades (8, 11, 12).

The results of the present study showed that 85% of the participants got medications without any prescriptions. Also, the prevalence of keeping unused medications was low amongst this population, and the frequency of keeping such drugs was higher among the ones with a poor health status compared to their counterparts with good health status. A similar study conducted in Spain concluded that approximately half of the study population consumed some kinds of medicine, of which 64% were on prescription (6). Also, another Spanish study showed that immigrants consumed fewer medications than the autochthonous Spanish population. The rate of medication use without a prescription was much higher in the current study. The possible reason for this difference could be the low socioeconomic status of Afghan immigrants in Iran. Also, the majority of the subjects in the present study had no insurance and family physician coverage, and they prefer self-medication to medical prescription (9). Furthermore, the other reason for the low rate of keeping unused medicines in this group was the rate of medication consumption. It seems that they demand medication as need as their use.

The study analyses showed that the health status was not significantly different concerning age, gender, level of education, occupational status, having daily exercise plan, and being covered by insurance, supplemental insurance, and family physician, but the participants with a poor health status kept unused drugs more than their

Table 1. Distribution of the Socioeconomic Characteristics of the Study Subjects

Parameter	Total, N = 43	Health Status		P-value
		Good, N = 23	Poor, N = 20	
Gender				0.69
Female	31 (72.1)	16 (69.6)	15 (75)	
Male	12 (27.9)	7 (30.4)	5 (25)	
Age (y)				0.55
≤ 39	29 (67.4)	16 (69.6)	13 (65)	
40 - 59	13 (30.2)	6 (26.1)	7 (35)	
≥ 60	1 (2.3)	1 (4.3)	0 (0)	
Leve of education				0.99
Non-completed high school diploma	42 (97.7)	22 (95.7)	20 (100)	
Above high school diploma	1 (2.3)	1 (4.3)	0 (0)	
Occupational status				0.09
Employed	11 (25.6)	8 (34.8)	3 (15)	
Homemaker	27 (62.8)	11 (47.8)	16 (80)	
Jobless	5 (11.6)	4 (17.4)	1 (5)	
Insurance coverage				0.59
Yes	3 (7)	1 (4.3)	2 (10)	
No	40 (93)	22 (95.7)	18 (90)	
Supplementary insurance				-
Yes	0 (0)	0 (0)	0 (0)	
No	43 (100)	23 (100)	20 (100)	
Family physician				0.65
Yes	5 (11.6)	2 (8.7)	3 (15)	
No	38 (88.4)	21 (91.3)	17 (85)	
Daily exercise plan				0.57
Yes	17 (39.5)	10 (43.5)	7 (35)	
No	26 (60.5)	13 (56.5)	13 (65)	
Getting medicine without prescription				0.4
Yes	36 (85.7)	20 (90.9)	16 (80)	
No	6 (14.3)	2 (9.1)	4 (20)	
Medication cost				0.99
No cost	1 (2.3)	1 (4.3)	0 (0)	
With cost	42 (97.7)	22 (95.7)	20 (100)	
Keeping unused medicines				0.03
Yes	9 (20.9)	2 (8.7)	7 (35)	
No	34 (79.1)	21 (91.3)	13 (65)	
Class of medication				0.34
Cold	11 (50)	7 (63.6)	4 (36.4)	
GI disorder	7 (31.8)	2 (18.2)	5 (45.5)	
Diabetes	4 (18.2)	2 (18.2)	2 (18.2)	

counterparts with good health status. Carrasco-Garrido et al., concluded that gender, age, having a chronic disease, using alternative medicines, having a negative perception of health, and a history of consulting with a physician in the preceding two weeks, were significantly associated with an increase in medication consumption. Although there were no significant differences in the health status of male and female participants in the current study, an ethnographic study evaluating the health-seeking behavior of Afghan female nationals residing in Mashhad, Iran, found that the risk of adverse health events was high in this population and can have a negative impact on their both physical and mental health conditions. Thus, particular attention should be paid to the health condition of Afghan female migrants (10).

Iran is now hosting one of the largest populations of refugees in the world (13), as well as the migrants voluntarily leaving their country to seek work in Iran (14). The majority of this population has Afghan nationality. Hence, paying more attention to the health status of migrants, particularly the Afghan population, seems necessary in order to improve the health status of their community.

The present study had a number of limitations, which might affect the validity of the results drawn and could lead to suggestions for further research. First of all, the study was based on non-validated self-declared data leading to bias. Second, the data analyzed were collected for purposes other than the present study, which may affect the conclusion. Third, only Afghan immigrants were included in the study, which limited the generalizability of the results. Another noteworthy limitation was the small sample size, which was due to the data collection method. Altogether, further studies with larger sample sizes are required to obtain more conclusive results on the medication consumption pattern and health status of migrants in Iran.

In conclusion, Iran is now hosting Afghan nationals as one of the largest populations of refugees in the world. The findings of the present study showed that this population had easy access to medication and got medicines without prescription since they were not covered by insurance and the family physician program. As an illustration, the most common classes of medication used were cold medicines, followed by GI disorder drugs. Indeed, they can follow their seasonal pattern based on previous findings. It seems that the health status of the Afghan population requires more attention. The authors suggest that the National Health System of Iran enrolls this group in the screening program of communicable and non-communicable diseases. Besides, further studies should be performed on all migrants in order to improve the health status of their community in Iran.

Footnotes

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