Difficulties and Barriers of Primary Health Care Physicians in Rural Areas of Aseer Region, Saudi Arabia

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Received: December 2020; Accepted: January 2021; Published: February 1, 2021.
Citation: Mastor A.M. Alshahrani et al. Difficulties and Barriers of Primary Health Care Physicians in Rural Areas of Aseer Region, Saudi Arabia. World Family Medicine. 2021; 19(1): 44-48 DOI: 10.5742/MEWFM.2021.93982

Abstract

Aim of Study: To identify difficulties and barriers facing primary health care physicians in rural areas of Aseer Region, Saudi Arabia.

Methods: This cross-sectional study was conducted at primary healthcare centers (PHCCs) belonging to the Saudi Ministry of Health, in rural areas of Aseer Region. A total of 134 physicians participated in the study. A validated study questionnaire was adapted and used for data collection.

Results: Female physicians constituted 43.3% of respondents, age of 58.2% was 30-35 years, (Mean±SD: 32.8 ± 7.0 years), 54.5% were married, the salary of 76.1% was <10,000 SR, and the place of residence of 43.3% was in urban areas. Only 34.3% had opportunities for on-the-job continuing medical education, 33.6% were satisfied with medical equipment and resources, and 50% were dissatisfied with their salary. Internet service was present for 83.6% of participants. The social life of 83.6% was negatively affected, and 16.4% were exposed to violence at the workplace. Most participants had a favorable attitude toward working in rural areas, mainly in the form of professional satisfaction, pursuing postgraduate academic studies, building confidence as a clinician and provision of opportunities to upgrade knowledge and skills. Participants were less satisfied regarding several social factors, such as internet connectivity, isolation from family and relatives; received support from rural people, difficult schooling for children, but were not satisfied regarding PHCC infrastructure, their residential facilities, or earning more money.

Conclusion: Serving within the rural healthcare system provides young physicians with an opportunity to build up their experience and to increase their confidence as physicians. However, important difficulties that they face are mainly social and financial. Hence, creating a health policy to safeguard the serving physicians' career and providing facilities to promote personal and social well-being needs to be considered.

Key words: Primary healthcare, rural health, difficulties, barriers, Saudi Arabia

Introduction

Early intervention is the best approach to reduce the burden of diseases. However, healthcare access remains unequal, with rural populations having the poorest access to, and utilization of, primary healthcare centers and consequently the poorest health outcomes (1). In Saudi Arabia, there are 2,282 primary healthcare centers (PHCCs) that provide preventive and curative services for more than 23 million people, with almost 60% of these PHCCs located in rural areas and villages (2).

In Riyadh, Saudi Arabia, Alshammari (3) examined the factors influencing access to and use of PHCCs in urban and rural areas. The findings highlighted important differences between urban and rural populations. For rural patients these factors included the distance to the PHCC, its cleanliness, understanding the treatment and receiving health prevention and promotion services. Alfaqeeh (4) noted that due to inequalities in access and utilization of healthcare services, health outcomes between people living in rural and urban areas differ significantly.

Nielsen (5) argued that there are several challenges that face healthcare providers in rural areas. Rural physicians treat patients that tend to be older, sicker, and less well insured. Populations in rural communities are increasingly elderly; the average age for hospital admissions in rural settings is over 65, and these older patients comprise one-half of all admissions. In contrast, older patients in urban settings account for just 37% of hospital admissions.

Turisco and Metzger (6) added that physicians may experience negative impacts due to the low number of healthcare practitioners in rural areas as well as in the distance factor, which results in limitations on productivity, communication and ongoing education. Research notes that there is more difficulty for the rural providers in communication with other providers of health care. There is much less in the way of opportunities to attend conferences and training due to the requirements of travel, which limits access to medical knowledge and research work. Lower efficiency results from travel time involved in visiting patients in hospitals and nursing homes as well as in fewer face-to-face visits, and more time on the telephone with other providers and with patients.

Mumenah and Al-Raddadi (7) reported that the main problems faced by primary care physicians in rural areas are related to difficult transportation, unavailability of radiology technicians and radiologists, X-ray and ultrasound equipment, unavailability of laboratory services, reagents, insufficient laboratory tests, absence of internet and computer access, and poor building maintenance.

The present study aimed to identify difficulties and barriers facing primary health care physicians in rural areas of Aseer Region, Saudi Arabia.

Methods

Following a cross-sectional research design, the present study was conducted during the period from January to March 2020, in rural PHCCs belonging to the Ministry of Health of Aseer Region, at the southwestern part of the Kingdom of Saudi Arabia.

Using the single proportion equation in Raosoft software package (8), at 95% confidence intervals, a primary healthcare physicians' population size in rural areas of 204, 5% margin of accepted error, and 50% response distribution, the sample size was calculated to be 134 physicians.

A study questionnaire was constructed by the researchers that was adapted from the validated questionnaire of Singh et al. (9). The first part of the questionnaire comprised participants' personal and work data, while the second part included 15 statements about physicians' attitudes toward work in rural areas. Some questions were negatively phrased and others were positively phrased. Participants were asked to respond on a five-point Likert scale, ranging "from strongly agree" to "strongly disagree", to indicate the extent to which they agreed or disagreed to the statements. Numerical scores were assigned to each level of agreement, such as strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5), for positively framed statements. For the statements framed negatively, scores were reverse coded, such as strongly disagree (5), disagree (4), undecided (3), agree (2), and strongly agree (1). Therefore, the maximum attitude score for each statement is 5, while the minimum is 1. Higher scores (i.e., 3 or more) indicate a positive (i.e., favorable) attitude toward working in a rural area, while scores less than 3 reflect a negative (i.e., unfavorable) attitude.

The Statistical Package for Social Sciences (IBM, SPSS version 25.0) was used for data entry and analysis. Descriptive statistics were applied (frequency and percentage for qualitative variables and Mean±SD for quantitative variables).

Results

Table 1 shows that 43.3% of respondents were females, age of 58.2% was 30-35 years, (Mean±SD: 32.8 ± 7.0 years), 54.5% were married, the salary of 76.1% was <10,000 SR, and the place of residence of 43.3% was in urban areas.

Table 2 shows that 34.3% of participants had opportunities for on-the-job continuing medical education, 33.6% were satisfied with medical equipment and resources, and 50% were dissatisfied with their salary. Internet service was present for 83.6% of participants. The social life of 83.6% was affected by working in rural areas, and 16.4% were exposed to violence in the workplace.

Table 3 shows that most attitude mean scores of primary health care physicians toward working in rural areas were above 3 (i.e., favorable), mainly in the form of professional satisfaction (4.8±1.8), pursuing postgraduate academic studies (4.4±1.5), building confidence as a clinician (4.4±2.8) and provision of opportunities to upgrade knowledge and skills (4.2±1.7). Moreover, participants were less satisfied regarding several social factors, such as internet connectivity, isolation from family and relatives; received support from rural people, difficult schooling for children (3.7±1.5; 3.4±2.1; 3.4±2.4, and 3.3±1.2; respectively). However, participants were not satisfied regarding PHCC infrastructure (2.9±1.5), their residential facilities (2.5±1.1) or earning more money (1.9±1.0).

Table 1: Personal characteristics of rural primary health care physicians in Aseer Region

Personal characteristics	No.	%
Gender		
• Female	58	43.3
• Male	76	56.7
Age (in years)		
• <30	22	16.4
• 30-35	78	58.2
• >35	34	25.4
• Mean±SD	32.8±7.0	
Salary (in SR)		
• ≤10,000	102	76.1
• Above 10,000	32	23.9
Marital status		
• Married	73	54.5
• Single	61	45.5
Place of residence		
• Rural	76	56.7
• Urban	58	43.3

Table 2: Work characteristics of rural primary health care physicians in Aseer Region

Work characteristics	No.	%
Opportunities for on-the-job continuing medical education		
• No	88	65.7
• Yes	46	34.3
Satisfaction with medical equipment/resources in the center		
• No	89	66.4
• Yes	45	33.6
Satisfaction with salary		
• No	67	50.0
• Yes	67	50.0
Use of Internet/e-mail in practice		
• No	22	16.4
• Yes	112	83.6
Was your social life negatively affected by working in rural are		
• No	22	16.4
• Yes	112	83.6
Were you exposed to any sort of violence at your work place		
• No	112	83.6
• Yes	22	16.4

Table 3: Rural primary healthcare physicians' attitude scores toward working in rural areas of in Aseer Region (Mean±SD)

Attitude toward working in rural areas	Mean	SD
Working in rural areas gives more professional satisfaction	4.8	1.8
Pursuing post-graduate academic studies after working in rural areas for a considerable time	4.4	1.5
Helps to build confidence as a clinician	4.4	2.8
Provides opportunities to upgrade knowledge and skills	4.2	1.7
Provides higher recognition among medical fraternity	3.9	2.9
Professional growth is limited	3.8	2.5
Provides an opportunity for independent working	3.8	1.5
Internet connectivity	3.7	1.5
Provides a good exposure of general practice	3.4	1.8
Isolation from family and relatives	3.4	2.1
People in rural areas are more supportive	3.4	2.4
Difficult schooling for children	3.3	1.2
PHCC infrastructure is adequate	2.9	1.5
Residential facilities are good	2.5	1.1
Helps in earning more money	1.9	1.0

Discussion

Various literature available has pointed out the differences between the facilities in urban and rural areas in both developed and developing countries. It has been noted that advances in healthcare systems is first seen in urban areas. However, the World Health Organization (WHO) stressed on providing healthcare services in rural areas and provided the guidelines to achieve this. Nevertheless, the majority of newly graduated physicians still prefer to work in urban areas rather than rural areas (10).

In our study we observed that the majority of the participant physicians in rural areas of Aseer were males aged 30-35 years, with an average age of 32.8 ± 7.0 years.

The relatively young age of participants in our study is attributed to the fact that most newly graduated physicians in Saudi Arabia become assigned to posts to serve in rural areas (11). However, this may constitute a difficulty for those who live in urban areas (43.3%).

It is to be noted that rural PHCCs are managed mainly by general practitioners. Specialists and consultants are exclusively present in secondary and tertiary healthcare hospitals in urban areas. This can provide a good opportunity for young physicians to start working independently and build valuable experience (11).

In our study, we observed that most primary care physicians were professionally satisfied (with a high mean score of 4.8±1.8) and helped them become more confident as a physician (with a high mean score of 4.4±2.8). However, they were not so happy with their residential facilities or their salary.

These findings are in accordance with those reported by several national and international studies. Al Asmri et al. (12) reported that the main difficulties facing physicians at PHCCs in rural areas of Riyadh, Saudi Arabia, include the distance to reach PHCCs, and residential facility cleanliness. They added that key areas to improve primary health care systems include the scope, structure, and infrastructure. Moreover, financial securities are essential factors and can have a positive effect on physicians' professional career.

Rohatinsky and Ferguson et al. (13), in the Canadian Province of Saskatchewan, reported that cross-professional mentoring enabled healthcare staff in rural areas to understand team member roles and established collaborative work environments. They concluded that inter-professional mentorship can assist with the challenges of socializing new employees to rural workplaces by offering a means to encourage collaborative relationships and ultimately foster positive patient outcomes.

Our participants were less satisfied socially, with the main encountered difficulties being schooling for children, connectivity with others, isolation from family and relatives; and received support from rural people.

It is to be noted that although schools are present everywhere throughout Saudi Arabia, there is a general perception that urban schools are always bigger and better. Therefore, schooling of physicians' children was cited as a reason for their lesser satisfaction. Rural schools often face difficulties that urban and suburban schools are much less likely to encounter. These difficulties may be attributed to that rural families live relatively far from the public schools, and the schools are relatively far from each other. As a result, there are considerable expenses for transporting children to and from schools (14).

It is to be noted that remote rural PHCCs constitute a real difficulty, especially for urban place of residence, who become separated from their family members and relatives, and may have the feeling of a stranger within rural people, especially when exposed to violence at their workplace.

In 2013, Al-Sareai et al. (15) reported that approximately one-third of primary healthcare teams in rural areas of Aseer Region, Kingdom of Saudi Arabia, face significant difficulties and barriers that affect provision of essential primary healthcare programs. In addition, most physicians are not very happy about serving in rural areas. Poor incentives including delayed disbursal of salary, lack of growth opportunities, delayed or no promotion, and absence of a system for professional development affect their motivation substantially. Besides, the absence of basic facilities like housing and good schools for children negatively affects their motivation. They advocated that a multi-sectoral integrated approach is mandatory to overcome these difficulties and introduce good quality care.

In conclusion, serving within the rural healthcare system provides young physicians with an opportunity to build up their experience and to increase their confidence as physicians. However, there are some important difficulties that face them, mainly social and financial barriers. Hence, creating a health policy to safeguard the serving physicians' career and providing facilities to promote personal and social well-being needs to be considered.

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