

Difficulties facing family physicians in primary health care centers in Abha City, Saudi Arabia

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Received: August 2020; Accepted: September 2020; Published: October 1, 2020.

Citation: Hatim Mohammed Ali Alsharafi, Bassam Mousa Khalawy Mokali. Difficulties facing family physicians in primary health care centers in Abha City, Saudi Arabia. *World Family Medicine*. 2020; 18(10): 91-102

DOI: 10.5742/MEWFM.2020.93879

Abstract

Background: Family medicine is a well-developed specialty in the western world. However, in most Arab countries, family medicine practice is still limited; with several problems that hinder its development.

Objectives: To determine the difficulties facing family physicians in Abha City, Saudi Arabia and to assess their satisfaction regarding their workplaces.

Subjects and methods: A cross-sectional study was carried out among a sample of Saudi family physicians at primary health care (PHC) centers belonging to the Ministry of Health (MOH) in Abha City, Aseer Region, Saudi Arabia. A self-administered questionnaire was developed by the researchers and was used for data collection. It included demographic data, inquiry about various difficulties faced by physicians at workplace and inquiry about their satisfaction regarding their workplaces.

Results: The study included 87 Saudi family medicine physicians. Males represent 52.9% of them. The commonest reported difficulties related to transportation and staff were shortage of nurses (59.8%), unavailability of radiologists (43.7%), unavailability of radiology technicians (35.6%) and unavailability of drivers (33.3%). The most frequently mentioned difficulties related to infrastructure and work environment were the unavailability of cafeteria (58.5%), poor biomedical services (40.2%), unavailability of internet services (40.2%) and unavailability of a

toilet for staff (40.2%), while regarding difficulties related to diagnostic, immunization, and pharmacy services, there were problems receiving radiology reports from referral facilities (58.6%), problems receiving results from reference laboratory (52.9%), insufficient laboratory test kits (37.9%) and unavailability of ultrasound equipment (33.3%). More than one third of the family physicians were satisfied with clinics (41.4%), working hours (41.4%), job (35.6%), and working environment (34.5%). On the other hand, a considerable percentage of them were unsatisfied with laboratory (65.6%), medical records (54.1%), and radiology (49.4%).

Conclusion: Family physicians working at PHC centers in Abha city, face several difficulties, which significantly affect their satisfaction with workplace and could impair quality of care delivered to patients.

Key words: Family Medicine, Primary health care, Difficulties, Satisfaction, Saudi Arabia.

Introduction

As medical awareness developed and technology advanced, many physicians chose to specify their practices to defined medicine areas. After World War II, the number of specialized physicians grew at a phenomenal rate, while the proportion of generalists diminished dramatically. Nevertheless, the public became increasingly aware of their care fragmentation and the shortage of physicians who can provide initial, continuing and comprehensive care. Thus, began the reorientation of medicine back to primary care, and the concept of the generalist was reborn with the establishment of family medicine (1-2).

In western countries, family medicine became a well-developed specialty. However, in almost all Arab countries, family medicine practice is still limited. This may be due to the lack of equipped primary healthcare (PHC) centers, and the inadequate financial support for family physicians and PHC. Therefore, there is low job satisfaction among family physicians compared to those working in secondary and tertiary healthcare facilities (3).

This study aimed to determine the difficulties facing family physicians in Abha City, Saudi Arabia and to assess their satisfaction regarding their workplaces.

Methodology

Following a cross-sectional study research design, this study was conducted in PHC centers belonging to Ministry of Health in Abha City, Aseer Region, Saudi Arabia. This study was conducted during the period from March 2019 to February 2020. The inclusion criteria were all family physicians in Abha City, who are involved in direct patient care.

Based on extensive review of relevant literature, a fully-structured multi-item questionnaire was designed by the researchers and was used for data collection. It comprised three parts. The first part included the necessary demographic and professional data, namely gender and marital status. The second part included questions that explore difficulties faced by family physicians, and had only "Yes" or "No" answer options. The third part used a Likert scale to determine the level of family physicians' satisfaction and how it is affected by the difficulties they encounter during their practice.

The Statistical Package for Social Sciences (IBM, SPSS, version 25.0) was used for data entry and analysis. Since all variables were categorical, frequency and percentages were utilized to describe the data. Chi-square test was applied to test significance of differences. P-values <0.05 were considered as statistically significant.

Results

The study included 87 Saudi family medicine physicians. Males represented 52.9% of the family physicians who participated in the study (Figure 1), and 65.5% were married (Figure 2).

Figure 3 shows that the commonest reported difficulties were shortage of nurses (59.8%), unavailability of a radiologist (43.7%), unavailability of a radiology technician (35.6%) and unavailability of a driver (33.3%).

Driver unavailability was reported by 36.6% of females compared to 30.4% of males, ($p < 0.001$). Similarly, transportation difficulties were mentioned by 26.8% of females compared to only 13% of males, ($p < 0.001$). The difficulty related to unavailability of laboratory technicians was mentioned by 19.3% of females compared to only 4.3% of males, ($p < 0.001$). Similarly, the unavailability of radiology technician was reported by 63.4% and 10.9% of females and males, respectively ($p < 0.001$). Moreover, 61% of females compared to 28.3% of male physicians reported the unavailability of radiologists ($p = 0.002$). There was no statistically significant difference between physicians regarding shortage of nurses and unavailability of pharmacist according to their gender (Table 1).

More than one-quarter of single physicians (26.7%) compared to 15.8% of married physicians had difficulties regarding transportation, ($p = 0.018$). There was no statistically significant difference between married and single physicians regarding other difficulties-related to transportation and availability of staff (Table 2).

The commonest reported difficulties related to infrastructure and work environment among family physicians were the unavailability of cafeteria (58.5%), poor biomedical service (40.2%), unavailability of internet service (40.2%) and unavailability of staff toilet (40.2%), as shown in Figure 4.

Missing patients' files were reported by 56.5% of male physicians compared to 51.2% of females. Additionally it was reported sometimes by 37% of male and 19.5% of female physicians, ($p = 0.012$). Dissatisfaction with managers was more observed among female physicians compared to males (31.7% versus 6.5%), $p = 0.007$. Similarly, dissatisfaction with colleagues was more observed among female physicians compared to males (26.8% versus 2.2%, $p = 0.003$). There was no statistically significant difference between male and female physicians regarding other difficulties related to infrastructure and work environment, as shown in Table 3.

There was no statistically significant difference between married and single physicians regarding all studied difficulties related to infrastructure and work environment as demonstrated in Table 4.

As realized from Figure 5, the most frequently reported difficulties related to diagnostic, immunization, and pharmacy services were problems receiving radiology

report from referral facility (58.6%), problems receiving result from reference laboratory (52.9%), insufficient laboratory test kits (37.9%) and unavailability of ultrasound equipment (33.3%).

More than one-third of female physicians (39%) compared to 10.9% of males reported unavailability of reagents, ($p=0.006$). Almost half of male physicians (47.8%) compared to only 17.1% of female physicians reported unavailability of ultrasound equipment, ($p=0.004$). About half of female physicians (46.3%) compared to 13% of male physicians reported unavailability of immunization services, ($p=0.002$). Female physicians were more complaining of unavailability of drugs than male physicians (22% versus 4.3%, $p=0.047$). There was no statistically significant difference between male and female physicians regarding other difficulties related to diagnostic, immunization, and pharmacy services, as shown in Table 5.

There was no statistically significant difference between married and single physicians regarding all studied difficulties related to diagnostic, immunization, and pharmacy services as shown in Table 6.

Table 7 shows that more than one third of the family physicians were either satisfied or very satisfied with clinics (41.4%), working hours (41.4%), job (35.6%), and working environment (34.5%). On the other hand, a considerable percentage of them were either unsatisfied or very unsatisfied with laboratory (65.6%), medical records (54.1%), and radiology (49.4%).

Female physicians were more satisfied than males regarding laboratory services (12.2% versus 4.3%, $p=0.040$). Half of male physicians compared to 31.7% of female physicians were satisfied with working hours, ($p=0.007$). Also 39.1% of male physicians compared to 31.7% of female physicians were satisfied with job. However, the difference did not reach the statistically significant level ($p=0.080$). There was no statistically significant difference between male and female family physicians regarding other healthcare services, as shown in Table 8.

Table 9 shows that 40% of single physicians compared to only 19.3% of married physicians were satisfied with medication and pharmacy, ($p=0.043$). There was no statistically significant difference between married and single family physicians regarding other healthcare services.

Figure 1: Gender distribution of participants

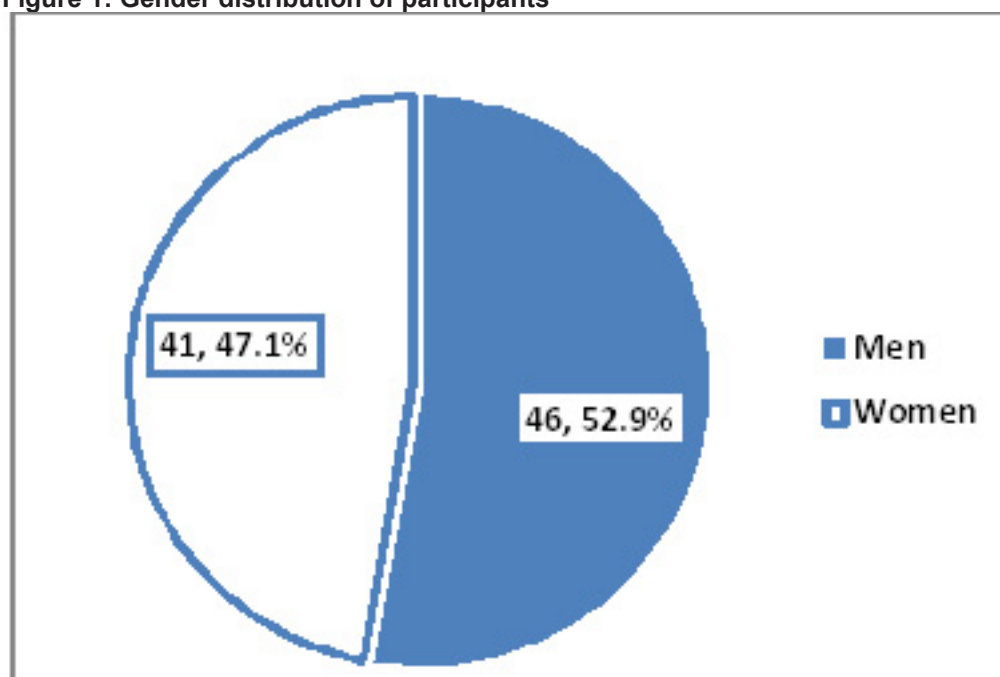


Figure 2: Distribution of the participants according to their marital status

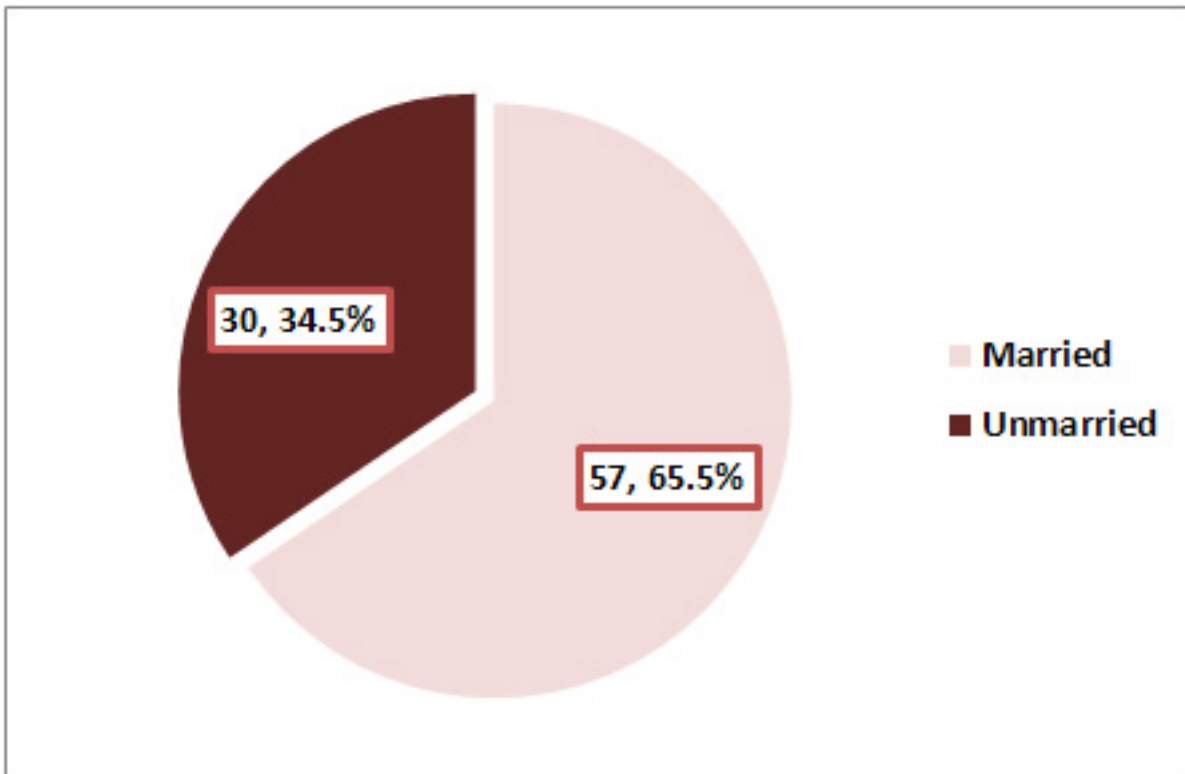


Figure 3: Difficulties related to transportation and staff among family physicians, primary healthcare centers, Ministry of Health, Abha City

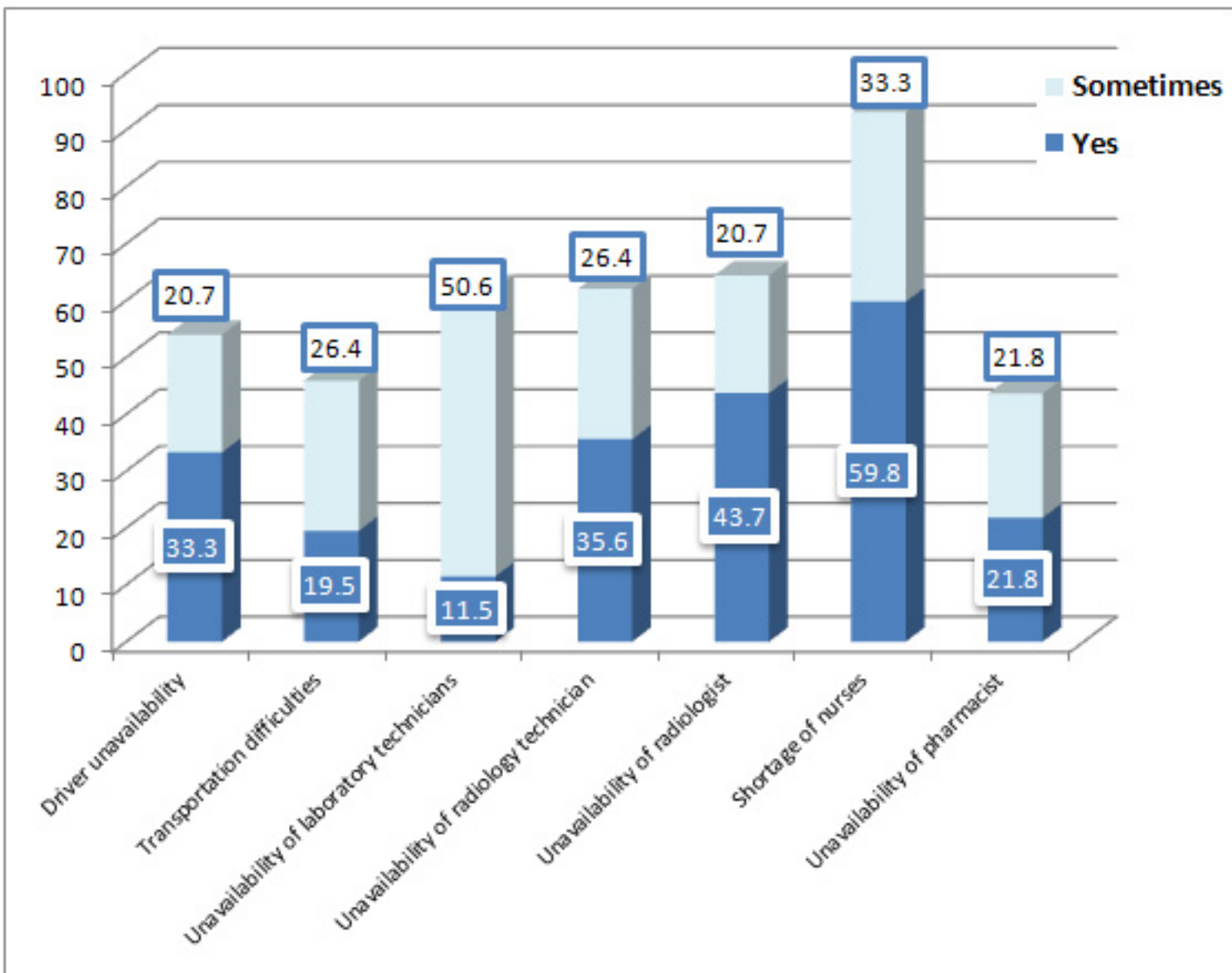


Table 1: Comparison between male and female family physicians regarding difficulties related to transportation and staff

| Difficulties | Males (n=46) | | | Females (n=41) | | | P value* |
|--|--------------|------------|-------------------|----------------|------------|-------------------|----------|
| | Yes No. (%) | No No. (%) | Sometimes No. (%) | Yes No. (%) | No No. (%) | Sometimes No. (%) | |
| Driver unavailability | 14 (30.4) | 30 (65.2) | 2 (4.4) | 15 (36.6) | 10 (24.4) | 16 (39.0) | <0.001 |
| Transportation difficulties | 6 (13.0) | 35 (76.1) | 5 (10.9) | 11 (26.8) | 12 (29.3) | 18 (43.9) | <0.001 |
| Unavailability of laboratory technicians | 2 (4.3) | 28 (60.9) | 16 (34.8) | 8 (19.5) | 5 (12.2) | 28 (68.3) | <0.001 |
| Unavailability of radiology technicians | 5 (10.9) | 30 (65.2) | 11 (23.9) | 26 (63.4) | 3 (7.3) | 12 (29.3) | <0.001 |
| Unavailability of radiologists | 13 (28.3) | 24 (52.2) | 9 (19.6) | 25 (61.0) | 7 (17.1) | 9 (21.9) | 0.002 |
| Shortage of nurses | 31 (67.4) | 4 (8.7) | 11 (23.9) | 21 (51.2) | 2 (4.9) | 18 (43.9) | 0.135 |
| Unavailability of pharmacists | 7 (15.2) | 31 (67.4) | 8 (17.4) | 12 (29.3) | 18 (43.9) | 11 (26.8) | 0.083 |

* Chi-square test

Table 2: Comparison between married and single family physicians regarding difficulties related to transportation and staff

| Difficulties | Married (n=57) | | | Single (n=30) | | | P value* |
|--|----------------|------------|-------------------|---------------|------------|-------------------|----------|
| | Yes No. (%) | No No. (%) | Sometimes No. (%) | Yes No. (%) | No No. (%) | Sometimes No. (%) | |
| Driver unavailability | 17 (29.8) | 30 (52.6) | 10 (17.5) | 12 (40.0) | 10 (33.3) | 8 (26.7) | 0.224 |
| Transportation difficulties | 9 (15.8) | 37 (64.9) | 11 (19.3) | 8 (26.7) | 10 (33.3) | 12 (40.0) | 0.018 |
| Unavailability of laboratory technicians | 5 (8.8) | 22 (38.6) | 30 (52.6) | 5 (16.7) | 11 (36.7) | 14 (46.7) | 0.542 |
| Unavailability of radiology technician | 19 (33.3) | 25 (43.9) | 13 (22.8) | 12 (40.0) | 8 (26.7) | 10 (33.3) | 0.272 |
| Unavailability of radiologist | 25 (43.9) | 22 (38.6) | 10 (17.5) | 13 (43.3) | 9 (30.0) | 8 (26.7) | 0.549 |
| Shortage of nurses | 35 (61.4) | 4 (7.0) | 8 (31.6) | 17 (56.7) | 2 (6.7) | 11 (36.7) | 0.891 |
| Unavailability of pharmacist | 11 (19.3) | 35 (61.4) | 11 (19.3) | 8 (26.7) | 14 (46.6) | 8 (26.7) | 0.420 |

* Chi-square test

Figure 4: Difficulties related to infrastructure and work environment among family physicians, primary healthcare centers, Ministry of Health, Abha City.

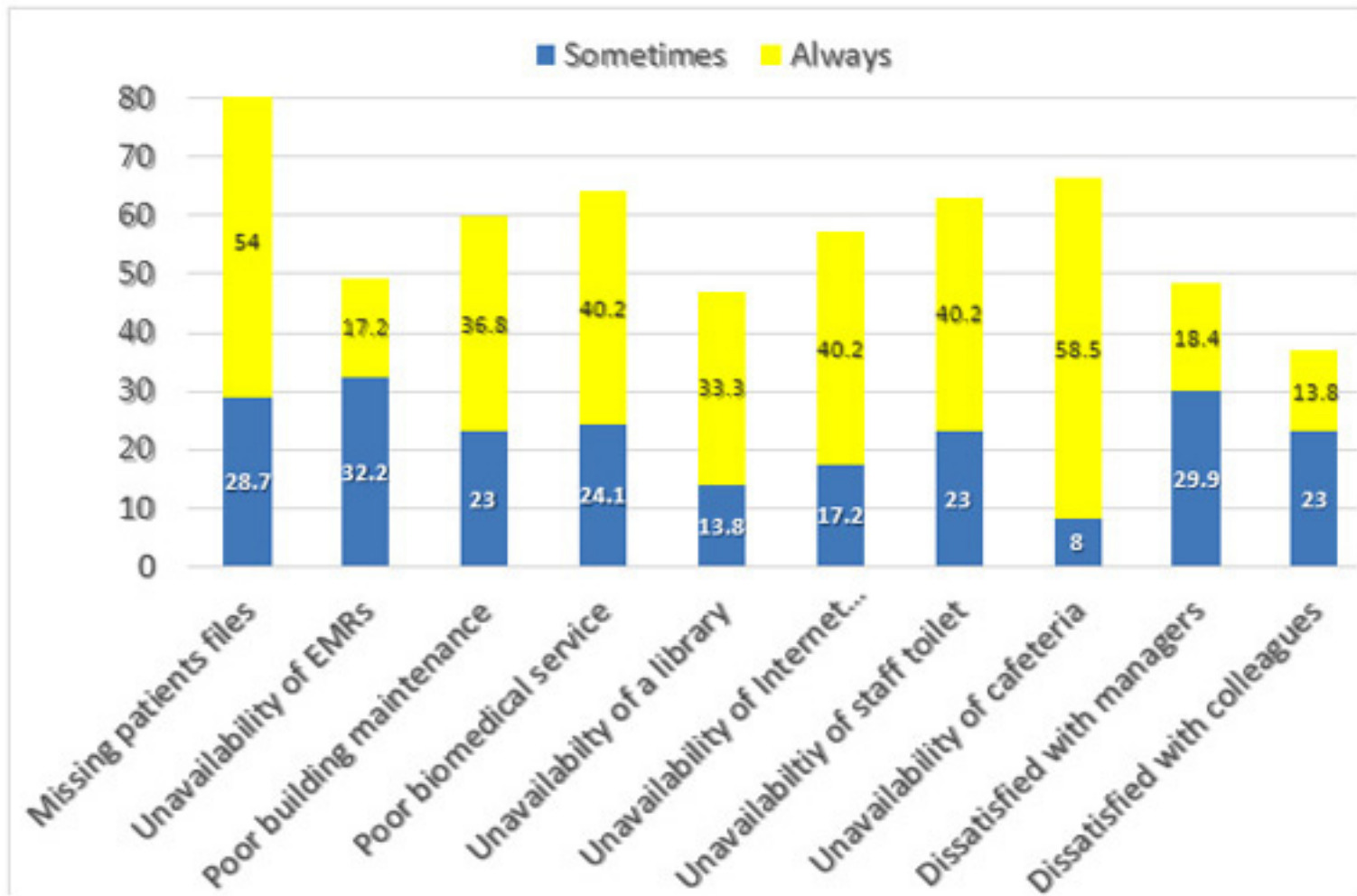


Table 3: Comparison between male and female family physicians regarding difficulties related to infrastructure and work environment

| Difficulties | Males (n=46) | | | Females (n=41) | | | P value* |
|---------------------------------------|--------------|------------|-------------------|----------------|------------|-------------------|----------|
| | Yes No. (%) | No No. (%) | Sometimes No. (%) | Yes No. (%) | No No. (%) | Sometimes No. (%) | |
| Missing patient files | 26 (56.5) | 3 (6.5) | 17 (37.0) | 21 (51.2) | 12 (29.3) | 8 (19.5) | 0.012 |
| Unavailability of EMRs** | 7 (15.2) | 20 (43.5) | 19 (41.3) | 8 (19.5) | 24 (58.5) | 9 (22.0) | 0.155 |
| Poor building maintenance | 12 (26.1) | 20 (43.5) | 14 (30.4) | 20 (48.8) | 15 (36.6) | 6 (14.6) | 0.059 |
| Poor biomedical service | 19 (41.3) | 15 (32.6) | 12 (26.1) | 16 (39.0) | 16 (39.0) | 9 (22.0) | 0.806 |
| Unavailability of library | 17 (37.0) | 22 (47.8) | 7 (15.2) | 12 (29.3) | 24 (58.5) | 5 (12.2) | 0.607 |
| Unavailability of internet connection | 14 (30.4) | 22 (47.8) | 10 (21.8) | 21 (51.2) | 15 (36.6) | 5 (12.2) | 0.128 |
| Unavailability of staff toilets | 20 (43.5) | 13 (28.3) | 13 (28.3) | 15 (36.6) | 19 (46.3) | 7 (17.1) | 0.186 |
| Unavailability of cafeteria | 27 (58.7) | 16 (34.8) | 3 (6.5) | 23 (56.1) | 14 (34.1) | 4 (9.8) | 0.856 |
| Unsatisfied with managers | 3 (6.5) | 29 (63.1) | 14 (30.4) | 13 (31.7) | 16 (39.0) | 12 (29.3) | 0.007 |
| Unsatisfied with colleagues | 1 (2.2) | 34 (73.9) | 11 (23.9) | 11 (26.8) | 21 (51.2) | 9 (22.0) | 0.003 |

*Chi-square test; **Electronic medical records

Table 4: Comparison between married and single family physicians regarding difficulties related to infrastructure and work environment

| Difficulties | Married (n=57) | | | Single (n=30) | | | P value [§] |
|---------------------------------------|----------------|------------|-------------------|---------------|------------|-------------------|----------------------|
| | Yes No. (%) | No No. (%) | Sometimes No. (%) | Yes No. (%) | No No. (%) | Sometimes No. (%) | |
| Missing patient files | 32 (56.1) | 9 (15.8) | 16 (28.1) | 15 (50.0) | 6 (20.0) | 9 (30.0) | 0.833 |
| Unavailability of EMRs | 12 (21.1) | 29 (50.9) | 16 (28.1) | 3 (10.0) | 15 (50.0) | 12 (40.0) | 0.322 |
| Poor building maintenance | 20 (35.1) | 22 (38.6) | 15 (26.3) | 12 (40.0) | 13 (43.3) | 5 (16.7) | 0.596 |
| Poor biomedical service | 23 (40.4) | 20 (35.1) | 14 (24.6) | 12 (40.0) | 11 (36.7) | 7 (23.3) | 0.987 |
| Unavailability of library | 18 (31.6) | 30 (52.6) | 9 (15.8) | 11 (36.7) | 16 (53.3) | 3 (10.0) | 0.729 |
| Unavailability of internet connection | 21 (36.8) | 24 (42.1) | 12 (21.1) | 14 (46.7) | 13 (43.3) | 3 (10.0) | 0.392 |
| Unavailability of staff toilets | 23 (40.4) | 19 (33.3) | 15 (26.3) | 12 (40.0) | 13 (43.3) | 5 (16.7) | 0.514 |
| Unavailability of cafeteria | 32 (56.1) | 20 (35.1) | 5 (8.8) | 18 (60.0) | 10 (33.3) | 2 (6.7) | 0.915 |
| Unsatisfied with managers | 11 (19.3) | 29 (50.9) | 17 (29.8) | 5 (16.7) | 16 (53.3) | 9 (30.0) | 0.853 |
| Unsatisfied with colleagues | 8 (14.0) | 35 (61.4) | 14 (24.6) | 4 (13.3) | 20 (66.7) | 6 (20.0) | 0.873 |

* Chi-square test

Table 5: Comparison between male and female family physicians regarding difficulties related to diagnostic, immunization, and pharmacy services

| Difficulties | Males (n=46) | | | Females (n=41) | | | P value [†] |
|---|--------------|------------|-------------------|----------------|------------|-------------------|----------------------|
| | Yes No. (%) | No No. (%) | Sometimes No. (%) | Yes No. (%) | No No. (%) | Sometimes No. (%) | |
| Unavailability of laboratory service | 4 (8.7) | 27 (58.7) | 15 (32.6) | 10 (24.4) | 17 (41.5) | 14 (34.1) | 0.100 |
| Unavailability of reagent | 5 (10.9) | 20 (43.5) | 21 (45.7) | 16 (39.0) | 9 (22.0) | 16 (39.0) | 0.006 |
| Insufficient laboratory tests | 14 (30.4) | 18 (39.1) | 14 (30.4) | 19 (46.3) | 12 (29.3) | 10 (24.4) | 0.310 |
| Problems receiving result from reference laboratory | 29 (63.0) | 4 (8.7) | 13 (28.3) | 17 (41.5) | 4 (9.8) | 20 (48.8) | 0.114 |
| Unavailability of X-ray equipment | 10 (21.7) | 25 (54.3) | 11 (23.9) | 6 (14.6) | 28 (68.3) | 7 (17.1) | 0.411 |
| Unavailability of ultrasound equipment | 22 (47.8) | 15 (32.6) | 9 (19.6) | 7 (17.1) | 27 (65.8) | 7 (17.1) | 0.004 |
| Problems in receiving radiology report from referral facility | 32 (69.6) | 6 (13.0) | 8 (17.4) | 19 (46.3) | 10 (24.4) | 12 (29.3) | 0.089 |
| Unavailability of immunization services | 6 (13.0) | 20 (43.5) | 20 (43.5) | 19 (46.3) | 14 (34.1) | 8 (19.5) | 0.002 |
| Unavailability of drugs | 2 (4.3) | 27 (58.7) | 17 (37.0) | 9 (22.0) | 19 (46.3) | 13 (31.7) | 0.047 |

* Chi-square test

Figure 5: Difficulties related to diagnostic, immunization, and pharmacy services among family physicians, primary healthcare centers, Ministry of Health, Abha City

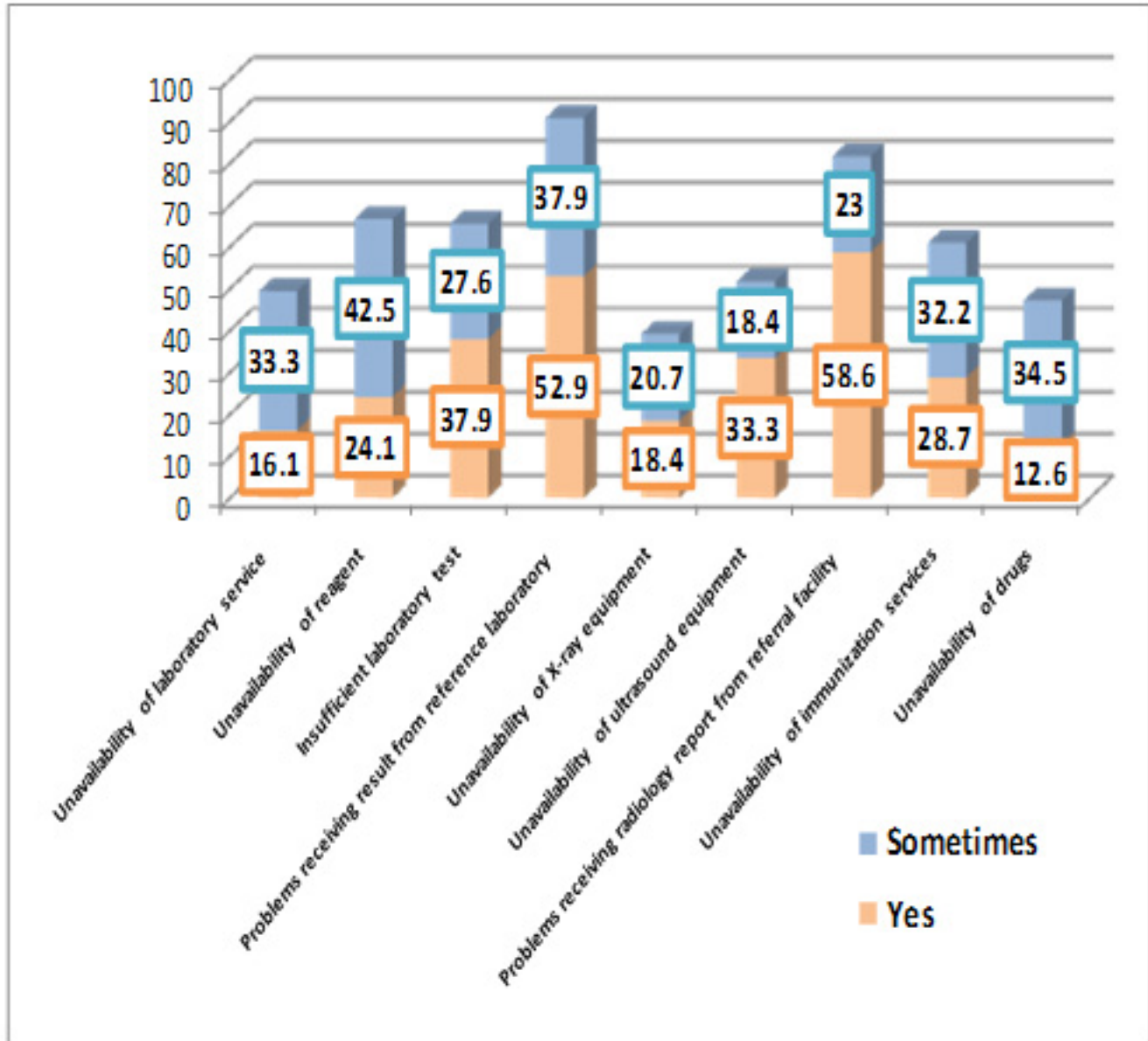


Table 6: Comparison between married and single family physicians regarding difficulties related to diagnostic, immunization, and pharmacy services

| Difficulties | Married (n=57) | | | Single (n=30) | | | P value* |
|---|----------------|------------|-------------------|---------------|------------|-------------------|----------|
| | Yes No. (%) | No No. (%) | Sometimes No. (%) | Yes No. (%) | No No. (%) | Sometimes No. (%) | |
| Unavailability of laboratory service | 8 (14.0) | 28 (49.2) | 21 (36.8) | 6 (20.0) | 16 (53.3) | 8 (26.7) | 0.573 |
| Unavailability of reagent | 13 (22.8) | 20 (35.1) | 24 (42.1) | 8 (26.7) | 9 (30.0) | 13 (43.3) | 0.869 |
| Insufficient laboratory tests | 23 (40.4) | 16 (28.1) | 18 (31.6) | 10 (33.3) | 14 (46.7) | 6 (20.0) | 0.204 |
| Problems receiving result from reference laboratory | 29 (50.9) | 5 (8.8) | 23 (40.4) | 17 (56.7) | 3 (10.0) | 10 (33.3) | 0.814 |
| Unavailability of X-ray equipment | 9 (15.8) | 35 (61.4) | 13 (22.8) | 7 (23.3) | 18 (60.0) | 5 (16.7) | 0.615 |
| Unavailability of ultrasound equipment | 17 (29.8) | 27 (47.4) | 13 (22.8) | 12 (40.0) | 15 (50.0) | 3 (10.0) | 0.302 |
| Problems in receiving radiology report from referral facility | 34 (59.6) | 10 (17.5) | 13 (22.8) | 17 (56.7) | 6 (20.0) | 7 (23.3) | 0.953 |
| Unavailability of immunization services | 17 (29.8) | 19 (33.3) | 21 (36.8) | 8 (26.7) | 15 (50.0) | 7 (23.3) | 0.275 |
| Unavailability of drugs | 8 (14.0) | 31 (54.4) | 18 (31.6) | 3 (10.0) | 15 (50.0) | 12 (40.0) | 0.695 |

* Chi-square test

Table 7: Satisfaction level of family physicians in primary health care centers with different healthcare services

| Services | Very Unsatisfied No. (%) | Unsatisfied No. (%) | Neutral No. (%) | Satisfied No. (%) | Very Satisfied No. (%) |
|----------------------------|--------------------------|---------------------|-----------------|-------------------|------------------------|
| Laboratory | 20 (23.0) | 37 (42.6) | 23 (26.4) | 5 (5.7) | 2 (2.3) |
| Radiology | 19 (21.8) | 24 (27.6) | 26 (29.9) | 16 (18.4) | 2 (2.3) |
| Medication and pharmacy | 6 (6.9) | 19 (21.8) | 39 (44.9) | 21 (24.1) | 2 (2.3) |
| Clinics | 3 (3.4) | 17 (19.5) | 31 (35.7) | 30 (34.5) | 6 (6.9) |
| Medical records | 13 (14.9) | 34 (39.2) | 21 (24.1) | 17 (19.5) | 2 (2.3) |
| Building maintenance | 8 (9.2) | 25 (28.7) | 33 (38.0) | 8 (9.2) | 13 (14.9) |
| Biomedical services | 7 (8.0) | 27 (31.1) | 39 (44.9) | 9 (10.3) | 5 (5.7) |
| Job | 5 (5.7) | 10 (11.5) | 41 (47.2) | 28 (32.2) | 3 (3.4) |
| Working hours | 7 (8.0) | 18 (20.7) | 26 (29.9) | 33 (38.0) | 3 (3.4) |
| Working environment | 6 (6.9) | 20 (23.0) | 31 (35.6) | 26 (29.9) | 4 (4.6) |
| Professional opportunities | 10 (11.5) | 24 (27.6) | 32 (36.8) | 19 (21.8) | 2 (2.3) |

Table 8: Comparison between male and female family physicians regarding satisfaction level with different healthcare services at primary healthcare centers

| Services | Males (n=46) | | | Females (n=41) | | | P value ⁺ |
|----------------------------|---------------------|-----------------|-------------------|---------------------|-----------------|-------------------|----------------------|
| | Unsatisfied No. (%) | Neutral No. (%) | Satisfied No. (%) | Unsatisfied No. (%) | Neutral No. (%) | Satisfied No. (%) | |
| Laboratory | 27 (58.7) | 17 (37.0) | 2 (4.3) | 30 (73.2) | 6 (14.6) | 5 (12.2) | 0.040 |
| Radiology | 21 (45.7) | 12 (26.1) | 13 (28.3) | 22 (53.7) | 14 (34.1) | 5 (12.2) | 0.178 |
| Medication and pharmacy | 14 (30.4) | 19 (41.3) | 13 (28.3) | 11 (26.8) | 4 (8.8) | 10 (24.4) | 0.782 |
| Clinics | 13 (28.3) | 13 (28.3) | 20 (43.4) | 7 (17.1) | 18 (43.9) | 16 (39.0) | 0.250 |
| Medical records | 23 (50.0) | 11 (24.0) | 12 (26.0) | 24 (58.5) | 10 (24.4) | 7 (7.1) | 0.577 |
| Building maintenance | 17 (37.0) | 17 (37.0) | 12 (26.0) | 16 (39.0) | 16 (39.0) | 9 (22.0) | 0.904 |
| Biomedical services | 16 (34.8) | 20 (43.5) | 10 (21.7) | 18 (43.9) | 19 (46.3) | 4 (9.8) | 0.296 |
| Job | 11 (23.9) | 17 (37.0) | 18 (39.1) | 4 (9.8) | 5 (8.5) | 13 (31.7) | 0.082 |
| Working hours | 16 (34.8) | 7 (15.2) | 23 (50.0) | 9 (22.0) | 19 (46.3) | 13 (31.7) | 0.007 |
| Working environment | 13 (28.3) | 16 (34.7) | 17 (37.0) | 13 (31.7) | 15 (36.6) | 13 (31.7) | 0.870 |
| Professional opportunities | 22 (47.8) | 13 (28.3) | 11 (23.9) | 12 (29.3) | 19 (46.3) | 10 (24.4) | 0.147 |

* Chi-square test

Table 9: Comparison between married and single family physicians regarding satisfaction level with different healthcare services at primary healthcare centers

| Services | Married (n=57) | | | Single (n=30) | | | P value ⁺ |
|----------------------------|---------------------|-----------------|-------------------|---------------------|-----------------|-------------------|----------------------|
| | Unsatisfied No. (%) | Neutral No. (%) | Satisfied No. (%) | Unsatisfied No. (%) | Neutral No. (%) | Satisfied No. (%) | |
| Laboratory | 35 (61.4) | 19 (33.3) | 3 (5.3) | 22 (73.4) | 4 (13.3) | 4 (13.3) | 0.082 |
| Radiology | 27 (47.3) | 18 (31.6) | 12 (21.1) | 16 (53.3) | 8 (26.7) | 6 (20.0) | 0.856 |
| Medication and pharmacy | 19 (33.3) | 27 (47.4) | 11 (19.3) | 6 (20.0) | 12 (40.0) | 12 (40.0) | 0.043 |
| Clinics | 13 (22.8) | 23 (40.4) | 21 (36.8) | 7 (23.3) | 8 (26.7) | 15 (50.0) | 0.395 |
| Medical records | 32 (56.1) | 14 (24.6) | 11 (19.3) | 15 (50.0) | 7 (23.3) | 8 (26.7) | 0.727 |
| Building maintenance | 21 (36.8) | 22 (38.6) | 14 (24.6) | 12 (40.0) | 11 (36.7) | 7 (23.3) | 0.959 |
| Biomedical services | 21 (36.8) | 26 (45.7) | 10 (17.5) | 13 (43.3) | 13 (43.3) | 4 (13.4) | 0.798 |
| Job | 9 (15.8) | 25 (43.9) | 23 (40.4) | 6 (20.0) | 16 (53.3) | 8 (26.7) | 0.447 |
| Working hours | 16 (28.1) | 16 (28.1) | 25 (43.9) | 9 (30.0) | 10 (33.3) | 11 (36.7) | 0.797 |
| Working environment | 17 (29.8) | 21 (36.8) | 19 (33.4) | 9 (30.0) | 10 (33.3) | 11 (36.7) | 0.936 |
| Professional opportunities | 20 (35.1) | 21 (36.8) | 16 (28.1) | 14 (46.6) | 11 (36.7) | 5 (16.7) | 0.420 |

* Chi-square test

Discussion

The government of Saudi Arabia provides an excellent quality of healthcare services in terms of quantity and quality and it is ranked 29th in the world according to the World Health Organization(4). Nevertheless, the Saudi healthcare system has high rates of turnover and turnover intention, particularly among nursing and technician staff (5). In accordance with that, the present study revealed that the commonest reported difficulties related to transportation and staff among family physicians were shortage of nurses, unavailability of radiologists, radiology technicians and drivers. The same difficulties have been reported in previous studies carried out in Saudi Arabia(6, 7) and abroad (8, 9) .

Driver unavailability and transportation difficulties were more reported by females in the present study, although recently females were allowed to have a driving licence in Saudi Arabia but still most of them rely on drivers to go to work. Similar findings were reported by Mumenah and Al-Raddadi (7) . However, till a couple of years ago, women have been prohibited from driving in Saudi Arabia. So, it is expected that more female physicians will start to drive their own cars and their previous need of drivers for a lift will be minimized.

Also, unavailability of laboratory technicians, radiologists or radiology technicians was more reported by females. The same has been observed in a previous study carried out in Jeddah (7) . The Scientific Committee of Quality Assurance in Primary Health Care suggested that in order to provide a good quality health services, infrastructure and work environment should be appropriate to work comfortably (10) .

In the present study, concerning difficulties related to infrastructure and work environment among family physicians, the commonest reported were unavailability of cafeteria, poor biomedical service, unavailability of internet connection and unavailability of staff toilet. Accordingly, these deficiencies could impact negatively the work of the physicians. These obstacles have been observed by others(7, 11). These difficulties are reflected in lower job satisfaction among family physicians.

In the current study, missing patients' files was more reported by male physicians, whereas dissatisfaction with managers or colleagues was more observed among female physicians. These findings could be attributed to biological differences between males and females.

In accordance with other studies, (7-9) difficulties related to diagnostic, immunization, and pharmacy services were common in the present study. Despite the great improvement of the organization of primary care services in Saudi Arabia during the last years, several studies showed some difficulties related to shortage of resources (12-13).

The unavailability of ultrasound equipment, reagents, immunization services, and drugs were more reported by female physicians in the present study. These findings might reflect the higher need of female physicians than males to these services especially for antenatal and postnatal care.

Regarding the overall satisfaction of family physicians with services provided by primary care settings, considerable proportions of them were satisfied with clinics, working hours, job, and working environment. However, considerable proportions were dissatisfied with laboratory, medical records and radiology services. In another study carried out in Jeddah(7) all physicians were satisfied with immunization services. However, we did not specify this service in the present study.

Several studies indicated that electronic medical records systems have many advantages in improving the quality of health care, (14,15) reducing paperwork time,(16) and enhancing patient satisfaction (17) . However, in the current study, a considerable percentage of participants were dissatisfied with medical records. Therefore, in-depth research may be needed to investigate the possible reasons for this dissatisfaction.

The current study revealed that female physicians were more satisfied regarding laboratory services while male physicians were more satisfied with working hours than female physicians. This could reflect the higher family demands of women than men.

The main limitation of the present study is the conduction of the study in one city and among those working in primary care centers belonging to the MOH, which might limit the generalizability of findings over the entire population of family physicians all over the Kingdom or even in Abha City. Another important limitation is the relatively small sample size, which did not allow us to find statistically significant findings in some comparisons. Despite those limitations, the study is very important in exploring some difficulties faced by family physicians at primary care centers and these findings could be of importance for policy makers.

In conclusion, PHC family physicians in Abha City face several difficulties at the workplace. These difficulties are related to transportation and staff, such as shortage of nurses, unavailability of radiologist, radiology technician and driver or related to infrastructure and work environment such as poor biomedical service and unavailability of cafeteria, internet connection and staff toilet or related to diagnostic, immunization, and pharmacy services, such as problems receiving radiology report from referral facility or reference laboratory, insufficient laboratory test kits and unavailability of ultrasound equipment. There are differences between male and female physicians regarding some of these difficulties, such as transportation and unavailability of ultrasound equipment which are more among female physicians, whereas missing patients' files is more faced by male physicians. Family physicians are satisfied with clinics, working hours, job, and working

environment. On the other hand, they are dissatisfied with laboratory, medical records, and radiology services. Female physicians are more satisfied than males regarding laboratory services, while male physicians are more satisfied with working hours. Therefore, the Saudi MOH should provide all essential equipment and supplies to improve physician satisfaction. Difficulties related to infrastructure might need a specific authority to plan, monitor and care for them.

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