

# Perception toward the family medicine services among the Physicians of Prince Sultan Military Medical City, Riyadh City, 2018: Cross-sectional study

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## ABSTRACT

**Background:** Family medicine is the medical specialty that continuously provides comprehensive type of health care for individuals and families. Although the family physician role is essential, this specialty faces underestimation by other physicians of other specialties, thus resulting in a considerable gap in their cooperation and coordination, as some studies around the world had shown. The present study aimed to estimate the perception of other physicians toward the practice of family medicine physicians to improve the relationship between family physicians and other physicians, which in turn may lead to enhance healthcare system by high quality of work and higher efficiency. **Objective of the Study:** To estimate the perception among the physicians of Prince Sultan Military Medical City, Riyadh City by measuring the satisfaction toward the family medicine medical practices. **Subjects and Methods:** Through a cross-sectional design, the study had recruited 289 physicians who were actively practicing and working at Prince Sultan Military Medical City and fulfill the inclusion and exclusion criteria during the period from October 2018 until June 2019. Data collection carried out by questionnaire designed and revised by an expert panel of health professionals. An appropriate statistical test, such as the Chi-square test, was used to record the statistical significance between participants' answers and their demographic characteristics. **Results:** According to the study design, 289 patients were included in the study; the mean age was 42 years that ranged between 25 and 74 years. Two-Third of them (66%) were male and had Saudi nationality. Half of the participants are medical consultant, and a third of all participants worked under the department of internal medicine. The majority expressed their good perception with the family physician practice (91%). Most of the medical departments satisfied with statistically significant ( $P$  value  $<0.05$ ) with the need for family medicine services. There was less satisfaction from physicians in different departments with effective communication between family medicine services and other departments but didn't reach up to significant statistical level. Higher qualified physicians with high-rank job categories were less satisfied with the performance of family medicine services. **Conclusion:** Among other physicians in different departments, family medicine physicians have a good perception, and most of the physicians agreed that family medicine physicians should work more in their referral letters to improve their communication between them and other departments.

**Keywords:** Family medicine, health needs, perception, satisfaction, Saudi Arabia

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## Introduction

Family medicine is the medical specialty that continuously provides comprehensive type of health care for individuals and families. It integrates the biological, clinical, and behavioral sciences. The scope of family medicine encompasses all ages, both sexes, each organ system, and every disease entity.<sup>[1]</sup> Furthermore, at the international level, the family medicine specialty has been spread and formulated in essential elements and principles.

Historically, the first family medicine service program was in Canada, followed by the USA in 1969, then spread to Latin America, Asia, Europe, and Africa. In Saudi Arabia, the first family medicine department that aimed to practice family medicine was established at the military hospital in Riyadh in the early of 1980s; after that, most of the Saudi Universities had launched family medicine training programs since 1983 under the umbrella of the Saudi Commission of Health Specialties.<sup>[2]</sup>

The importance of family medicine came from the role of family physicians who provide comprehensive, integrated, and preventive health care, continuity, and individuality of patient care. Family physicians also serve as gatekeepers for different level of health care system and as a patient advocate. These services contribute significantly to the improvement of the medical sector.

Although the family physician role is essential, this specialty faces underestimation by other physicians of other specialties, some of the physicians believed that family medicine physicians were dedicated to preventive medicine.<sup>[3]</sup> Lack of understanding and respect,<sup>[4]</sup> reduction in the number of shared meetings, and a lack of communication channels were highlighting in previous studies<sup>[5-8]</sup> and thus resulting in a considerable gap in their cooperation and coordination. German research described the coordination between family medicine physicians and colleagues in other medical specialties as troubled.<sup>[9]</sup> Therefore, this negative perception toward family physicians from different specialties has several adverse impacts on family physicians. Researchers in Egypt<sup>[10]</sup> and Lebanon<sup>[11]</sup> indicated that the level of family medicine doctor's satisfaction in their job is low. Moreover, a study in Canada showed that family medicine doctors do not get enough respect from their professional medical colleagues.<sup>[12]</sup>

In Saudi Arabia, researches on how family physicians are perceived within the medical field are limited. Furthermore, there is a significant shortage of family physicians in KSA according to Saudi article that estimated the needed number of family physician as 3108, and the current family physician number is 636 which means there are needs to increase family physician staff by 79.5% to achieve demands of these primary healthcare centers (PHCCs).<sup>[2]</sup>

The role of family physician in primary health care is crucial and fundamental to the health care system, recently published study showed public's perception and satisfaction toward family

physicians in primary health care centers (PHCCs) is low, only 28.3% had a positive experience with family physicians.<sup>[13]</sup> With that, Saudi primary care will be unable to fulfill its potential according to a published systemic study.<sup>[14]</sup>

Hence, secondary and tertiary health care hospitals are receiving increasing number of inappropriate patients and query inappropriate referral from PHC level, which may affect their satisfaction and their perception toward PHCCs and PHC physicians.

In the current study, we are trying to investigate the area of specialists' perception which is not studied enough in Saudi Arabia.

The present study aimed to estimate the perception of other physicians toward the practice of family medicine physicians and put recommendations to help and improve the relationship between family physicians and other physicians, which in turn may lead to enhance healthcare system by high quality of work and higher efficiency.

## Research Methodology

### Rationale

Tensions between different medical specialty groups exist and respect with professionalism is a long-standing concern in most workplaces. Underestimation of family medicine specialty's role will increase the gap of coordination and communication between family medicine physicians and other physicians. Therefore, patients and health services will get interruption in terms of cost-effectiveness and health outcome; this is because the health care system relies on primary health care to reduce expenses and prevent the occurrence of serious common preventable diseases. Furthermore, negative perception towards the specialty of family medicine will affect the career choices of medical student and junior physicians, and will thus lead to a decrease in the number of family physicians in the future while there is an increase in demand.

### Objective

To estimate the perception among the physicians of Prince Sultan Military Medical City, Riyadh City by measuring the satisfaction toward the family medicine medical practices.

### Study design

The research design was a cross-sectional study.

### Study setting

Prince Sultan Military Medical City, Riyadh City, Saudi Arabia.

### Population

The study had recruited physicians who met the inclusion and exclusion criteria as the following In *inclusion criteria*

1. Physicians who were actively practicing and working at Prince Sultan Military Medical City under the departments of internal medicine, surgery, psychiatry, emergency medicine, pediatric, obstetrics and gynecology, ophthalmology, and orthopedic.
2. Physicians who had job title of registrars, senior registrars, and consultant
3. Physicians who were male or female at any age or nationality.

On the other hand, the *Exclusion criteria* were as the following:

1. Physicians who were medical interns or residents.

- Sample size and Sampling process:

Through the Convenient sampling, 289 of physicians from 1163 the total number of the physicians who met the inclusion and exclusion criteria had recruited in the present study at 5% margin of error and confidence level of 95%,

$$\text{Sample size} = \frac{z^2 \times (p) \times (1 - p)}{c^2}$$

Z is the statistic corresponding to the level of confidence

P: the expected prevalence from medical administration records.

C: confidence interval

$$1,96^2 \times (1163) \times (1-1163)/5^2 = 289$$

- Data collection:

### Questionnaire

The questionnaire was revised by an expert panel of consultants of internal medicine, family and community medicine health quality, health informatics, and health administration to ensure the face and content validity. The Cronbach alpha coefficient was 0.7, indicating good reliability

The questionnaire of this study was consisted of three sections:

- The first section included seven sociodemographic questions (Age, gender, years of experience, nationality qualification, current job title, and department)
- The second section included 27 main items included Likert of 3 scale (agree, neutral and disagree). Outcome score of the Likert scale determines the perception of specialties doctors toward family physician so that, if the result is more than 54, it would be classified as good perception, and lower than 54 would be classified as bad perception. Outcome score at 54 represents the sum of the neutral choices in the Likert scale.

### Study plan

This research study planned to recruit physicians who fulfill the criteria during the period from October 2018 until June 2019. Data collection had started after getting permission from the ethical and scientific committee of Prince Sultan Military Medical City research department. The questionnaire was

distributed after getting consent form from each participant. The participant confidentiality was also under keen observation, and the data was kept highly confidential along the course of the research.

### Data management and statistical analysis

For the Data entry and statistical analysis, SPSS 20.0 statistical software package was used. Quality control performed at the stages of coding and data entry. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations, medians and inert-quartile range for quantitative variables. Chi-square test used to record the statistically significant between participants' answers and their demographic characteristics among the participants.

## Research Results

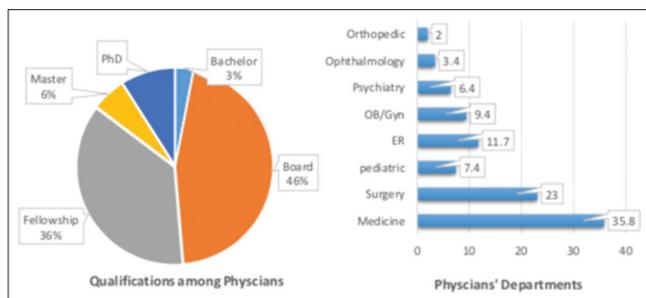
### Characteristics of the study subjects

According to the study design, 289 participants were included in the study; their mean age was 42 years that ranged between 25 and 74 years. Two-Third of them (66%) were male and had Saudi nationality. Half of the participants are medical consultant, and a third of all participants worked under the department of internal medicine [Table 1]. 46% of our sample are board eligibale and 75% are from the major spacity: medicin 36%, surgery 23%, pediatrics 7% and OB/Gyn 9% [Figure 1].

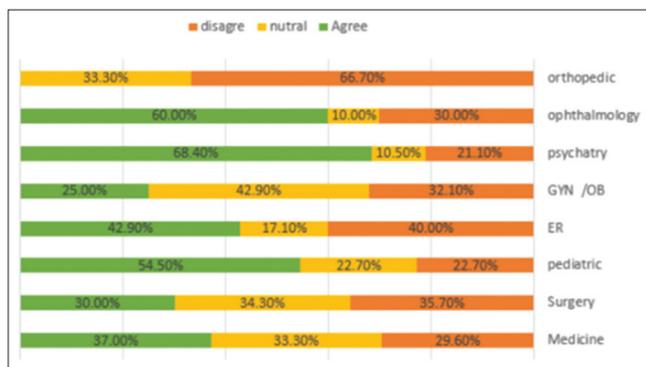
With regards to the total perception and satisfaction of participants with the family physician practice in Prince Sultan

**Table 1: General characteristics of the Participants (n=289)**

Demographic characteristics	Frequency	Percent
Age		
25-34	64	21.5
35-44	144	48.5
45-54	58	19.5
55-64	29	9.8
65-74	2	0.7
Range	25-74 years	
Mean±SD	42±13 years	
Gender		
Male	197	66
Female	101	34
Nationality		
Saudi	193	65
Non-Saudi	105	35
Years of experience		
0-5	7	2
6-10	93	31.50
11-15	75	25
16-20	60	20
Job category		
Registrar	73	24.50
Senior registrar	74	24.80
Consultant	151	50.70



**Figure 1:** Percentage of Physicians with different qualifications and assigned departments that they work with (n=289)



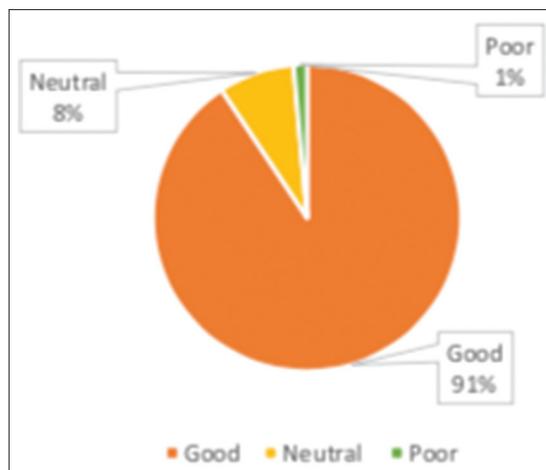
**Figure 3:** Physicians' satisfaction with the performance of Family medicine Physicians' services. (n=289)

Military Medical City, Figure 2 indicates that the majority expressed their good perception with the family physician practice (91%). Figure 3 revealed that the most satisfaction physicians were psychiatrists (68.4%), ophthalmologist (60%), and pediatricians (54.5%). On other hand, most dissatisfaction physicians were surgeons (16.7%) then Gyn/Ob (25%) and medicine (41.1%) with *P* value = 0.018.

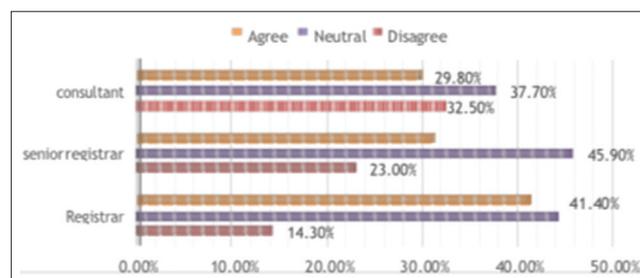
As shown in Figure 4, the third of the participants agreed that the Family medicine Physicians' services are communicating effectively with the other departments. However, the consultants, among other job category were the less likely to agree that there is effective communication from the Family medicine Physicians' services 29.8%. (*P* value = 0.017).

### Relation between general characteristics and physicians' satisfaction with the need of family medicine practice in the health care system

Table 2 illustrates that the majority of the departments satisfied with statistically significant (*P* value <0.05) with the need for the family medicine services; however, the psychiatric and pediatric departments had been registered as the lowest score of 68.4%, then 81.8%, respectively. From another view, participants who qualified by having only bachelor degrees were the less likely need the family medicine services. Among the job category, all levels (registrar, senior registrar, and



**Figure 2:** Total participants' perception and satisfaction with the family physicians in Prince Sultan Military Medical City



**Figure 4:** Physicians' satisfaction with the performance of Family medicine Physicians' services. (n=289)

**Table 2: Relation between physicians' satisfaction with the needs of family medicine practice and their General characteristics (n=289)**

Department	Satisfaction with needs of family medicine practice			<i>P</i>
	Disagree	Neutral	Agree	
Medicine	0.0%	1.8%	98.2%	
Surgery	0.0%	5.6%	94.4%	
pediatric	0.0%	18.2%	81.8%	
ER	8.6%	2.9%	88.6%	0.011*
GYN/OB	3.6%	10.7%	85.7%	
psychiatry	10.5%	21.1%	68.4%	
ophthalmology	0.0%	0.0%	100.0%	
orthopedic	0.0%	0.0%	100.0%	
Qualification				
Bachelor	0.0%	50.0%	50.0%	
Board	11.8%	7.4%	80.9%	
Fellowship	3.7%	6.4%	89.9%	0.002*
Master of science	0.0%	5.9%	94.1%	
PHD	0.0%	3.7%	96.3%	
Job category				
Registrar	2.9%	11.4%	85.7%	
Senior registrar	1.4%	8.1%	90.5%	0.002*
Consultant	11.3%	4.0%	84.8%	

(\*) Statistically significant at *P*<0

**Table 3: Relation between physicians' satisfaction with the effective communication of family medicine practice and their General characteristics (n=289)**

	Satisfaction with family medicine practice communication effectively			P
	Disagree	Neutral	Agree	
Department				
Medicine	23.2%	48.2%	28.6%	0.219
Surgery	44.4%	33.3%	22.2%	
Pediatric	18.2%	54.5%	27.3%	
ER	22.9%	34.3%	42.9%	
GYN/OB	17.9%	46.4%	35.7%	
Psychiatry	10.5%	26.3%	63.2%	
Ophthalmology	20.0%	50.0%	30.0%	
Orthopedic	50.0%	16.7%	33.3%	
Qualification				
Bachelor	16.7%	83.3%	0.0%	0.023*
Board	22.1%	36.0%	41.9%	
Fellowship	31.2%	42.2%	26.6%	
Master of science	29.4%	41.2%	29.4%	
PHD	22.2%	55.6%	22.2%	

(\*) Statistically significant at  $P < 0.05$ **Table 4: Relation between physicians' satisfaction with the performance of family medicine practice and their General characteristics (n=289)**

	Satisfaction with performance of family medicine practice			P
	Disagree	Neutral	Agree	
Qualification				
Bachelor	16.7%	16.7%	66.7%	0.044*
Board	30.9%	27.2%	41.9%	
Fellowship	33.9%	27.5%	38.5%	
Master of	23.5%	52.9%	23.5%	
Science PHD	44.4%	40.7%	14.8%	
Job category				
Registrar	31.4%	21.4%	47.1%	0.036*
Senior registrar	27.0%	29.7%	43.2%	
Consultant	35.8%	31.8%	32.5%	

(\*) Statistically significant at  $P < 0.05$ 

consultant) around 85% and above agree with the need for family medicine services.

### Relation between general characteristics and physicians' satisfaction with an effective communication of family medicine services

Table 3 displays less satisfaction with effective communication between family medicine services and different departments but didn't reach up to significant statistical level. On another hand, through different qualification, there is statistically significant ( $P$  value  $< 0.05$ ) between the type of qualification and satisfaction with effective communication from family medicine services for example physicians who had only board were highly satisfied with effective communication from family medicine services compared with high qualified physicians.

### Relation between physicians' satisfaction with the performance of family medicine services and their general characteristics

Table 4 shows that the type of qualification and job category were statistically significant ( $P$  value  $< 0.05$ ) with satisfaction of performance of family medicine service. Therefore, higher qualified physicians with high rank job category were less satisfied with the performance of family medicine service.

significant at  $P < 0.05$

## Discussion

The present study assessed the perception of different physicians within different department Prince Sultan Military Medical City towards the family medicine physicians. Overall, the findings of this study suggested a good perception toward family medicine physicians. However, good perception reflected the 2030 visions of the ministry of health, which promoted and supported the family physician role resulting in practicing family medicine by global standers. Due to the lack of similar studies, there is no chance to compare our results with other studies.

The other finding in this study is satisfaction towards the performance of family medicine physicians, which show significant variation between departments. This variation may be attributed to multi-factors such as number of the participants from each department, different number of referral rate for each department and way of communication either by direct call consultation or referral letter, in the average of our study half of participants were satisfied with performance of family medicine physicians which is supported by another study was done in Germany mentioned that specialists are highly appreciated and highlighted the professional aspect of family medicine physicians positively.<sup>[3]</sup>

On the other hand, the present study indicated that the physicians with higher qualifications and high ranked job category were less satisfied with the performance of family medicine physicians, and this could be due to the high level of experience and higher expectations. Furthermore, the unsatisfactory findings of departments such as orthopedic, surgery, OB/GYN should be considered seriously because it's can reflect the area of defect in family medicine physicians' performances and skills which need to be improved.

The way of communication between family medicine physicians and other physicians is based mainly on the referral letter. Most of the participants did not agree that family medicine physicians had effective communication with other departments. Furthermore, consultants agreed that family medicine physicians communicated poorly with different physicians, and this explains why they unsatisfied with family medicine physicians' performance. The result here comes in line with earlier study

conducted in Germany that showed that 60.5% of referral letter was judged as low quality and the same study concluded that other physicians were unhappy with referral letter of family medicine physicians.<sup>[15]</sup> There are two previous local studies with different outcomes with more better values<sup>[16-18]</sup>; perhaps the difference between our study and other studies due to the way of evaluating referral letter, in our study we designed a direct question to specialists regarding the referral letter contents, but in the both other studies they evaluate each referral letter based on ideal referral letter according to the standard of Quality Assurance Manual of Ministry of Health.

The results presented that only (39.1%) of consultants compared with other job category agreed that family medicine physicians had justified referral with specific criteria, this may be related to more experience and exposure of consultants to referral letters and guideline of referral than low ranked job category. Comparing our result with Thomas Rosemanns's study that displayed a huge difference between satisfaction of Saudi consultants and Germans consultants, and the result showed that 95% of German family medicine physicians give a clear reason for referral difference here is may be attributed to the national polices and procedures of referral within the health care system or the research methodology and method of evaluating referral reason in each research.

### Limitations of the study

Limitations of study can be summarized into:

- This study is cross-sectional design according to literature review a pre and post evaluation study design would be with better value
- Study carried out in single- institute and multicenter approach may increase the sample size.

### Conclusion

Among the physicians of different departments, family medicine physicians have a good perception, and most of the physicians agreed that family medicine physicians should work more in their referral letters to improve their communication between them and other departments. The findings of the current study revealed several areas that require further studies and analysis, such as causes of poor communication from family medicine physicians and reasons for variation in satisfaction between different departments. Further studies should include the reply of other physicians to family physician regarding their referral letters and thus will lead to wide database for additional researchers.

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Nil.

### Conflicts of interest

There are no conflicts of interest.

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