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PATIENTS PERCEPTION ABOUT THE FAMILY PHYSICIAN ROLE IN PROMOTING THEIR HEALTH IN PRIMARY CARE SETTINGS IN AL-AHSA, 2017-2018

Healthcare

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ABSTRACT

Objective: This study examine the patients' awareness and perception about the role of FP in Al-Ahsa PHC centers.

Method: A questionnaire-based cross-sectional survey was conducted at FM consultation clinics. Systematic randomized sampling technique was used during data collection, confidentiality was maintained, and written informed consent was taken. SPSS com-puter software used for data management.

Results: 340 patients visiting FM consultation Clinics were interviewed, of which (52.4%) were women, and (47.6 %) were men.

Our results suggesting that the participants had very less awareness regarding the role of FPs. Only 42.1 % (143) had good awareness, and 57.9 % (197) had poor awareness. Only 43.8% (149) had a good perception of the FM, and 56.2% (191) had a poor perception of the concept of FM.

Conclusion: It is recommended that programs emphasizing role of FM should be started for the public

KEYWORDS

Perception, role, Family Physician, Family Medicine, Primary Health Care.

BACKGROUND:

FM is the medical specialty, which provides continuing, comprehensive health care for the individual and family. It is a specialty in breadth that integrates the biological, clinical and behavioral sciences. The scope of family medicine encompasses all ages, both sexes, each organ system and every disease entity. (2016 AAFP).

The reason for its steep growth is possible that FP play a vital role in the health care delivery system. They serve as the initial point of entry into the medical system and then providing continuing care to patients and families. (Huda, Samani, & Qidwai, 2004)

After the reconstruction of the health system across several communities , more emphasis was placed on primary care as the cornerstone of the health care delivery system. This resulted in better communication between FP and other Specialists. (Huda, Samani, & Qidwai, 2004)

Future of FM project suggests that FM is changing, and there is significant variability in the scope of practice among FPs . (Osman, Romani, & Hlais, 2011)

In the United States and Canada, surveys of practicing FPs have shown a large variability in the types of services physicians provide after completion of residency training . (Osman, 2011)

FM specialty training in the Arab world started in with the establishment of a department of FM at the American University of Beirut . In the 1980s and 1990s, several FM training programs emerged in several Arab countries.

According to a study published in 2007, there were nearly 20 FM training programs in the Arab world that graduate an average of 150 FP annually (Osman, 2011).

The healthcare system of Saudi Arabia has witnessed major changes since the early 1980s, in response to the need for comprehensive, cost-effective and cost-benefit services. This followed a governmental commitment to the Alma Ata declaration in 1980. Currently, nearly 1800 governmental PHC centers are distributed evenly throughout the country, 1707 of which belong to MOH. The adoption of PHC poli-cy mandated the development and training of the health workforce in the field of PHC and FM. So, in Saudi Arabia more than 30 years of FM and PHC training programs and education for doctors with reference to the development of staff, undergraduate curriculum, and post-graduate training programs in PHC and FM. (Albar, 1999)

The importance of FM in Saudi Arabia has also promptly increased due to the growing morbidity and mortality for preventable diseases. Therefore, it is necessary to train qualified and competent FM physicians (Albar, 1999) .

On the other hand, MOH put an aim to launch several health initiatives related to (the Saudi Vision 2030) that create a healthy system that meets all our requirements for years to come and continues the health and safety of everyone.

All over the plans and developed strategy that vision of 2030 needs to meet on health care system on Saudi Arabia to develop PHC cen-ter, the FP have basic roles to provide the comprehensive care to patients. For that they establish 82 consultation clinics, six of them are FM clinic established in AL HASA on 2017. (SAUDIMOHVESION)

Literature Review:

During reviewing of the literature, we found many studies about patients Perception about the FP.

- International Studies:

In June 2004, a questionnaire-based survey was conducted at the Specialist Clinic, Aga Khan University Hospital, Karachi, Pakistan; they had documented perceptions regarding family medicine among patient's visiting Specialist Physicians for treatment. They found that a significant number of patients visiting Specialist Physicians are not aware of the role of FP in the health care delivery system. This is in keeping with earlier findings concerning the low "health literacy," amongst the general population. So they recommend to increase health literacy, we need to promote awareness amongst the general population concerning FP. (Huda, Samani, & Qidwai, 2004)

Another Study was conducted on Nairobi at Aga Khan University Hospital about patient perceptions regarding the role of FPs. This study aimed to identify gaps in primary care patient's knowledge about the role of FP. They found that a major number of patients are not aware of the role of FP in the health care system. Based on the findings of this study they recommend a campaign that raises more awareness on the role of the FPs in Nairobi should be developed.(Albar, 1999)

A cross-sectional study was conducted by the Department of FM at Ramathibodi Hospital in Thailand in 2005. The study was inducted to compare patient satisfaction about health care services provided by FP,

resident and general physician. The aim of the study was not to discriminate between the quality of care of residents and general doctors but to demonstrate differences in quality of care that can be achieved by appropriate residency programs. The result of the study shows FPs scored higher for continuity of care when compared with general doctors and residents. General doctors had lower scores for communication skills and enablement when compared to FPs and residents. FPs had the highest scores in many dimensions of family practice skills, followed by residents and general doctors.These findings highlight the importance of FM residency training in creating a more effective primary care healthcare services in Thailand.(Jaturapatporn, D., & Dellow, A . 2007)

Anotherstudyconductedin the greater Vancouver area, affiliated with theDepartment of FM at the University of BritishColumbia, in 2005 regarding thepatients' perceptions and experiences of having FM residents in the office. At the end of the study, they conclude that the Respondents reported very positive experiences with having FM residents in the office.

Overall comfort and satisfaction with seeing FM residents were reported to be extremely high and most patients surveyed would choose to have FM residents involved in their care. (Christine E. Malcolm . 2008)

In Poland in 2010, the study was built up about A short questionnaire for measuring the quality of patient visits to family practices. As Conclusions of these study, they found that The Quality of Visit to FP questionnaire is a reliable tool that can be used by FPs to obtain feedback from patients about patient-doctor relationships and visit outcomes, barriers and difficulties experienced by patients in seeking FP care, and the availability of care(LUDMILA M, MIKOLAJ R, RYSZARD G AND SLAWOMIR C, 2010).

In India in January 2015, the study was inducted about Patient Perceptions and Expectations from Primary Health-care Providers. This study was carried out at a Private Primary Health Care Center in a semi-rural area in New Delhi. They found that private health care providers are still the first choice for any form of medical care. However, there was a gap between the increasing expectations of the patients for more information, better Patient-Provider interaction, more control over the treatment process and better amenities even at the Primary Care level.

It is this gap, which needs to be fulfilled to facilitate better utilization of PHC Services in the community and reduce pressure on tertiary care services to ensure Universal Health Coverage. This study would also help us understand the challenges for Primary Care service providers, private and public, in a low socioeconomic urban setting. (Ardey 2017)

- Studies in Arab countries:
Information on the practice of FM in Arab countries is scant. They aim to describe the current state of the specialty in the region. This includes the scope of practice, practice setting, training programs, and the numbers and profiles of their graduates. (Osman ., 2011)

Between October 2008 and June 2009, A survey of leaders in FM in Arab countries was conducted in the American University of Beirut; They found that there are 31 FM residency programs in Arab countries graduating about 182 residents per year. In most Arab countries, the FP to population ratio remains low. Most graduates work in clinical practice, and a large proportion of them are employed in government-run clinics. There is significant variability in the scope of practice among practicing physicians. FM continues to struggle for a clear identity worldwide.

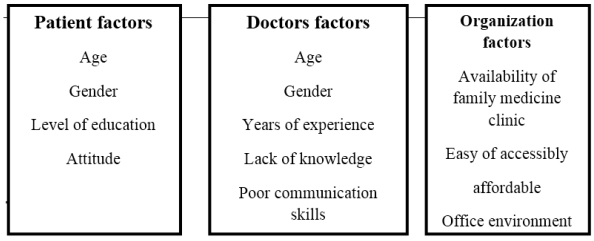
In the Arab world, where the specialty is relatively new, steps can be taken to better define our identity as a specialty and increase its desirability as a specialty. (Osman, 2011)

- Studies in the Kingdom of Saudi Arabia:
Our literature review failed to retrieve any study in the kingdom of Saudi Arabia that studied the awareness of patient perspective.

The lack of knowledge and perception of patients about the FP role lead to many health problems.

Many factors affect patients perception:-

Problem analysis diagram



Specific Objectives:
Primary Specific Objective:
To identify gaps in knowledge and perception of patients about the FPs in Al-Ahsa region .

Secondary Specific Objective:
To formulate recommendations to bridge these gaps, and to help in devel-oping awareness programs highlighting the role of FPs and so create more awareness about the role of FPs to the public. [1]

METHODOLOGY

Study area:
The study was conducted in Al-Ahsa which is the largest governorate in Saudi Arabia eastern province.

Study setting and time:-
PHC centers in Al-Ahsa in Ministry of Health (MOH), which include FM con-sulting clinics during study period .

STUDY DESIGN METHODS:
This study was a questionnaire-based cross-sectional survey.

Study Population:
Patients are attending the FM consulting clinics in the following PHC: (Al-Bandriya, Al-Khaledeya, Mahasen, Al-Salaheya, Shuabat Al-Mubbaraz, Al-Jafer) during the study period.

INCLUSION CRITERIA:
All adult patient age 18 years and above who seeking medical care in se-lected PHCs during the study period.

Exclusion criteria
Patients under 18 years.

Study variables:
***Dependent variables:**
Scores of patient's perceptions about the role of FPs in health care.

***Independent variables:**
- Socio-demographic including age, sex
- Level of patient education
- Employment status
- Nationality
- Patient knowledge.

Sample Size:-
The sample was drawn from the list of a patient visiting FM clinics at the PHCs mentioned before for two months (January & February). In the last two months before conducting this study, the estimated total patients' visiting these PHC for FM consulting clinics was 1530 patients, and that was our estimated total population for this study.

At the 95% confidence level with acceptable margin of error of 5%; and by using a web-based sample size calculator, the estimated calculated sample size should be 307 and to ensure the margin of error will not increase in the case of non-responders, and so our sample will still representative; 15% extra was collected to the estimated sample size (i.e., 46 extra patients). Thus, the final calculated sample size was 353. At the end of our study, the response rate was 96%.

Sampling Technique:
We choose our participants by systematic random sampling. The

interval of patients was estimated as follows:

Total population / sample size = 1530/353 =4.33
So, each 5th patient was interviewed with the data collection tool. There were six PHC centers with FM consulting clinic (Al-Bandriya, Al-Khaledeya, Mahasen, Al-Salaheya, Suabat Al-Mubbaraz, Al-Jafer PHC) so, the estimated patient's number needed to be interviewed to fill the questionnaire from each PHC was calculated as follows:

Sample size / Family Medicine Clinics = 353/6 =58.83
That was 59 patients from each center.

Data Collection Tool:
Data was collected using a face-to-face questionnaire developed and designed by the investigators (**Appendix**). A modified validated questionnaire (Patients Perception about the FPS among Primary Care Settings, Al-Ahasa 2017-2018) had been designed after the identification of variables. It was arranged in two pages. The first page was composed of one part; socio-demographic data. The second page contained three parts, first part about if the patient had an idea about the definition of a FP, and the second part is table includes nine question about the role of the FP in managing the patients in PHC clinic. The last part of the questionnaire was conducted to evaluate the patient's perception and expectation about the FM. Reliability of the questionnaire was checked through a Pilot Study and Cronbach's alpha score.

The questionnaire was translated into Arabic, and the reviewed translation was tested and retranslated into English.

The questionnaire was distributed and collected at the same time during the working hours.

The researchers checked data for completion while they received the questionnaire from patients in the same setting.

Pilot Study:
A pilot study had been conducted initially on 26 participants to test the reliability of the questionnaire; the Cronbach Alpha was 0.75. This indicates a high level of internal consistency for our scale considering the Cronbach value of ≥0.70 reflects good reliability.

We had estimated the time needed for each interview, and that was 5-10 minutes.

All pilot study records were excluded from the study sample.

Data management and Analysis:
The response rate was calculated, and incomplete questionnaire was considered a non-responder. Data were entered into the personal computer and were analyzed using the Statistical Package of Social Services (SPSS) software version 21. All variables were coded before entry and were checked before analysis.

score calculation:
Perception score and FM role score:
The addition of Likert scale points computed the perception score and FM role score. The median was calculated and was used as a cut off for good and poor perception and role score. Frequency analysis of basic information and perception scores and role scores were constructed and expressed as numbers and percentages. Chi-squared test was used to assess the relationship between basic information and perception scores and role scores.

A p-value of < 0.05 was used as indicative of statistical significance.

Study strengths:
Up to our knowledge, this is the first study done in eastern province to assess patient perception and knowledge about the role of a FP

Study limitations:
This is a cross-sectional study, so it has a limitation in evaluation temporality and causality of the observed relationship.

Ethical considerations:
Approval of the study was requested from the Institutional review board committee. Confidentiality is maintained.

Study implications:
This study will help to assess the level of perception and knowledge of patient about family physicians in Al-Ahsa area.

Study reporting and implementations:
A scientific paper will be written at the end of study for publication in national and international journals.

-Budget: This is a self-funded study project.

Data analysis and results
Results:
This study attempts at the examination of the understanding patients' awareness by the role of FPs and identify gaps in knowledge about the roles of FPs and perception among them in Al-Ahsa PHC centers during the study period.

Demographic Characteristics of participant
The results of total 340 participants and response rate of about 96% (table 1) in research (Patients Perception & awareness About the FP roles in Al-Ahsa). The mean age of participating patients was 35.31 ± 12.26 years. The minimum age was 18 years old, while the maximum age was 73 years old.

We put those from 18-30 in one category and those from 31-50 in one category and that 51 years and more in one category. Majority 45% of participants were between the age group 31–50 years followed by 40% of participants who belonged to 18–30 years of age group and 13.2% of participants are 51 years and above. 47.6 % were males. Most of participant 55% were low Education level those who have not completed their university.

Approximately half of the participant 60.6% were unemployed. Most of the participants were married 71.8%, Un-married status was defined as who didn't get married before, separated, divorced, and widowed. Most of the participant were Saudi 96%. Among the patients attending to primary health care centers 55.9% didn't have any chronic illnesses, however, of remaining of participants, 15.6% had hypertension, 18.2 % were diabetics, and 11.8 % were anemic. Upon questioning regarding FM as a specialty, most participants 61.8% did not know about it.

Table 1 socioeconomic

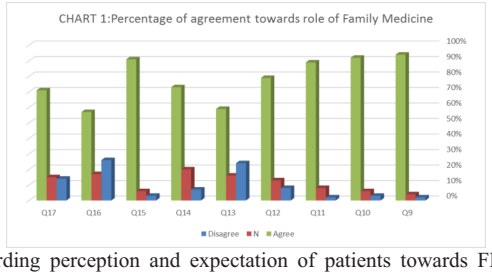
Demographic	Participant NO (%)
Age 18-30 years 31-50 years 51 year and above	136 (40%) 153 (45%) 45 (13.2%)
Gender Male Female	162 (47.6%) 178 (52.4%)
Education High Educated low Educated	152 (44.7%) 187 (55%)
Employment Employer non-Employer	133 (39.1%) 206 (60.6%)
Marital Married Non-married	244 (71.8%) 96 (28.2%)
Nationality Saudi Non-Saudi	328 (96%) 9 (3%)
Comorbid No comorbid comorbid Hypertension Diabetes Anemia	190 (55.9%) 150 (44.1%) 83 (15.6%) 62 (18.2%) 40 (11.8%)
Know FM Know Not Know	130 (38.2%) 210 (61.8%)

Table 2 & 3 suggest the patients' percentage of agreement towards perception, expectation, and role of FM. Almost all the responses regarding the role of FM were found to have positive results towards an agreement. However, two of the statements had different responses.

Almost 57% of patients agreed that the FP does not provide health education to patients and 59% agreed that physicians do not share the management plan. 17% and 16% responses for both statements has further neutral responses.

Table 2. Percentage of agreement towards the role FM:

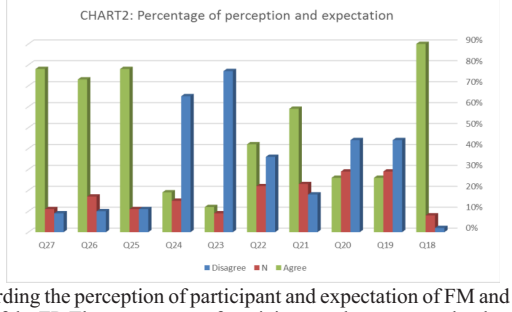
Statements	Disagree	N	Agree
Q09: FP take a complete history	2%	4%	94%
Q10: FP familiar with your family history	3%	6%	92%
Q11: FP doing an appropriate physical examination	2%	8%	89%
Q12: FP doing a proper investigation	8%	13%	79%
Q13: FP do not share management plan	24%	16%	59%
Q14: FP has an appropriate referral	7%	20%	73%
Q15: FP ensure privacy to patients	3%	6%	91%
Q16: FP is not providing appropriate health education	26%	17%	57%
Q17: FP able to provide emergency care	14%	15%	71%



Regarding perception and expectation of patients towards FP, the responses are unequally distributed for all statements. For example, 90% of patients agree that FPs promote community health and 44% disagree that preventive medicine and rehabilitation are not parts of FM. Furthermore, 59% of participant thinks that FM is home care. And 77% of participants disagree that FM provides care for adults only. However, 78% agree that FM is a treatment for the male gender. Moreover, 73% and 68% agree that FM provides a psychological aspect and treat common diseases respectively.

Table 3. Percentage of perception and expectation

Statements	Disagree	N	Agree
Q18: FP promote the community health	2%	8%	90%
Q19: Preventive medicine is not a part of FM	44%	29%	26%
Q20: Rehabilitation is not part of FM	44%	29%	26%
Q21: Home care is a FM	18%	23%	59%
Q22: FM is providing care of community rather than individual	36%	22%	42%
Q23: FM is providing care only for adult	77%	9%	12%
Q24: FM is treating chronic disease only	65%	15%	19%
Q25: FM is treating male gender only	11%	11%	78%
Q26: FM is taking care of psychosocial aspect of patient	10%	17%	73%
Q27: FM is treating common diseases among community	9%	11%	78%



Regarding the perception of participant and expectation of FM and the role of the FP. The mean score of participants who are aware by the role of the FP is 35.86 with a SD of 4.22 and the median of 36, and the mean score of participants who are aware by the conception of FM is 35.61 with a SD of 5.25 and the median of 36.

We considered the median as a cut point of the awareness, that is those who achieve 36 points or less are considered as poorly aware about the role and conception of a FP. However, Table (4) shows the percentage of poor & good awareness by role and perception regarding FM & FP among the participants. It is clearly suggesting that the participants had very less awareness regarding the role of FP in the PHC centers. Only 42.1% have good awareness about the role of the FP, and 57.9 % have poor awareness about the role of the FP. And only 43.8% (149) have a good perception about the FM and 56.2% have poor awareness about the concept of FM.

Table 4: Perception & aware by the role of FM

	Poor aware Role	Good aware Role
Role of FM	197 (57.9%)	143(42.1%)
	Poor perception	Good perception
Perception	191 (56.2%)	149 (43.8%)

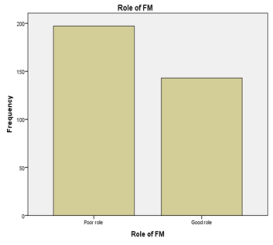


Figure 1

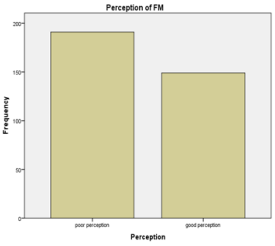


Figure 2

The relationship between awareness about the role of FM and demographics is established by applying the chi-square. most of the variables had shown no significant association with the awareness about role of FM except employment status as non-employer 62.6% not aware and P-value (0.017) as well as those who know FM compared to those who do not know FM (54.6% and 34.3% respectively, p-value < 0.001) as look in table (5)

After applying binary logistic regression analysis of awareness about the role of FP in relation to participants know FM as appear in table (6) which show, the odds of having the good awareness about the role of FP in those who do know FM is 2.247 times compare to those who don't know FM, p-value <0.001, 95% CI (1.432 – 3.527).

In another hand, the odds ratio of having the good awareness about the role of FP for employer is 0.626 time compared to those non-employed, p-value 0.041, 95% CI (0.399 – 0.982), since we have a negative coefficient relationship (-0.469); so having good awareness to this statement for being non-employed is 1.597 times better compared to employed, p-value 0.041, 95% CI (1.018 – 2.506). Which mean that non-employment had the good awareness of the role of FM.

Table 5. The relationship between awareness by the role of FM and demographics

Demographics	Poor awareness	Good awareness	P-value
Age 18 – 30 years 31 – 50 years 51 and above	83 (61%) 84 (54.9%) 26 (57.8%)	53 (39%) 69 (45.1%) 19 (42.2%)	0.729 *
Gender Male female	90 (55.6%) 107 (60.1%)	72 (44.4%) 71 (39.9%)	0.230*
Educational Low educated Highly educated	116 (62%) 80 (52.6%)	71 (38%) 72 (47.4%)	0.051 *
Employment Employed Unemployed	67 (50.4%) 129 (62.6%)	66 (49.6%) 77 (37.4%)	0.017 **
Marital Married Not-married	145 (59.4%) 52 (54.2%)	99 (40.6%) 44 (45.8%)	0.223 *
Know FM Yes No	59 (45.4%) 138 (65.7%)	71 (54.6%) 72 (34.3%)	< 0.001 **

Table 6: regression analysis of awareness by the role of FM in relation to variables

Variables	B-coefficient	significance	Exp(B)	95% CI
Employment	-0.469	0.041	0.626	0.399- 0.982 **
Know of FM	0.810	<0.001	2.247	1.432 -3.527 **

*: not significant **: significant

Regarding the FM perception among the participants as shown in Table (7), shows there were significantly to females who had a good perception 48.9%, p-value 0.031, and in those who are knowing FM 50.8% p-value 0.028.

By applying binary logistic regression analysis of perception of participants to word the FM in relation to gender and status of known FM as appear in table (8) which show, the odds ratio of having the good perception to word FM in female (48.9%) participant is 1.553, p-value 0.060, 95% CI (0.983 – 2.421), which is statistically not significant. Also, the odds of having the good perception to word FM in those who know FM is 1.553, p-value 0.052, 95% CI (0.997– 2.421). Which is statistically not significant.

Table 7: Relationship between perception and demographics

Demographics	Poor perception N(%)	Good perception N(%)	P-value
Age groups 18 – 30 years 31 – 50 years 51 and above	75 (55.1%) 85 (55.6%) 27 (60%)	61 (44.9%) 68 (44.4%) 18 (40%)	0.890 *
Gender Male female	100 (61.7%) 91 (51.1%	62 (38.3%) 87 (48.9%)	0.031**
Educational Low educated Highly educated	112 (59.9%) 78 (51.3%)	75 (40.1%) 74 (48.7%)	0.070 *
Employment Employed Unemployed	79 (59.4%) 111(53.3%)	54 (40.6%) 95 (46.1%)	0.188 *
Marital Married Not-married	134 (54.9%) 57 (59.4%)	110 (45.1%) 39 (40.6%)	0.267 *
Know FM Yes No	64 (49.2%) 127 (60.5%)	66 (50.8%) 83 (39.5%)	0.028**

Table 8: regression analysis of perception about FM in relation to variables

Variables	B-coefficient	Significance	Exp(B)	95% CI
Gender	0.417	0.060	1.518	0.983 – 2.344 *
Know of FM	0.440	0.052	1.553	0.997 – 2.421 *

*: not significant **: significant

Percentage of agreement towards role FP different variables:
For each statement in the questionnaire, we considered the correct answers those that are coded with 4 and 5, and the other codes will be considered wrong answers.

As shown in table (9) The statistical test was applied to see the association between the agreement of "FP takes a complete history" and demographic characteristics which showed not statistically significant.

Table 9: Association between demographic characteristics & statement "Family physician takes a complete history."

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	128 (94.1%) 141(92.2%) 45 (100%)	8 (5.9%) 12 (7.8%) 0 (0%)	0.236 *
Gender Male Female	153 (94.4%) 167 (93.8%)	9 (5.9%) 11 (6.2%)	0.907 *
Education low Educated High Educated	176 (94.1%) 143 (94.1%)	11 (5.9%) 9 (5.9%)	0.998 *
Employment Employer non-Employer	125 (94%) 194 (94.2%)	8 (6%) 12 (5.8%)	0.942 *
Marital Married Non-married	232 (95.1%) 88 (91.7%)	12 (4.9%) 8 (8.3%)	0.228 *
Know FM Yes No	125 (96.2%) 195 (92.9%)	5 (3.8%) 15 (7.1%)	0.209 *

*: not significant **: significant.

As appear in table (10) The statistical test was applied to see the association between the agreement of "FP is familiar with the family history of patient" and demographic characteristics which showed not statistically significant

Table 10: Association between demographic characteristics and the statement "FP is familiar with your family history."

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	121 (89 %) 142 (92.8 %) 43 (95.6 %)	15 (11%) 11 (7.2%) 2 (4.4%)	0.388 *
Gender Male Female	148 (91.4 %) 164 (92.1 %)	14 (8.6%) 14 (7.9%)	0.795 *
Education low Educated High Educated	169 (90.4 %) 142 (93.4 %)	18 (9.6%) 10 (6.6%)	0.311 *
Employment Employer non-Employer	124 (93.2%) 187 (90.8%)	9 (6.3%) 19 (9.2%)	0.422 *
Marital Married Non-married	227 (93 %) 85 (88.5 %)	17 (7%) 11 (11.5%)	0.175 *
Know FM Yes No	122 (93.8%) 190 (90.5%)	8 (6.2%) 20 (8.2%)	0.272 *

*: not significant **: significant

As display in table (11) below the statistical test was applied to see the association between the agreement of "FP is doing appropriate physical examination" and demographic characteristics which showed not statistically significant.

Table 11: Association between demographic characteristics & statement "FP is doing appropriate physical examination."

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	120 (88.2%) 140 (91.5%) 39 (86.7%)	16 (11.8%) 13 (8.5%) 6 (13.3%)	0.683*
Gender Male Female	146 (90.1%) 158 (88.8 %)	16 (9.9%) 20 (11.2%)	0.684*
Education low Educated High Educated	167 (89.3 %) 136 (89.5 %)	20 (10.5%) 16 (10.5%)	0.960*
Employment Employer non-Employer	120 (90.2 %) 184 (89.3 %)	13 (9.8%) 22 (10.7%)	0.789*
Marital Married Non-married	218 (89.3 %) 86 (89.6 %)	26 (10.7%) 10 (10.4%)	0.949*
Know FM Yes No	119 (91.5%) 185 (88.1%)	11 (8.5%) 25 (11.9%)	0.316*

*: not significant **: significant

As in shown table (12) The statistical test was applied to see the association between the agreement of "FP is doing proper investigation" and demographic characteristics which showed not statistically significant.

Table 12: Association between demographic characteristics & statement "FP is doing a proper investigation."

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	98 (72.1%) 126 (82.4 %) 40 (88.9 %)	38 (31.9%) 27 (17.6%) 5 (11.1%)	0.052 *
Gender Male Female	126 (77.8 %) 143 (80.3 %)	36 (32.2%) 35 (19.7%)	0.562 *
Education low Educated High Educated	154 (82.4 %) 114 (75 %)	33 (17.6%) 38 (25%)	0.098 *
Employment Employer non-Employer	105 (78.9 %) 163 (79.1 %)	28 (21.1%) 43 (20.9%)	0.968 *
Marital Married Non-married	199 (81.6 %) 70 (72.9 %)	45 (18.4%) 26 (27.1%)	0.078 *
Know FM Yes No	109 (83.8%) 160 (76.2%)	21 (16.2%) 50 (23.8%)	0.091

*: not significant **: significant

By looking more into the table (13.1) The statistical test was applied to see the association between the agreement of "FP is sharing the management plan" and demographic characteristics which show there were significantly that females had a corrected answer (66.3%, p-value 0.003).

After applying binary logistic regression analysis of previous statement in relation to participants' gender, the odds ratio of having the correct answer to that statement as shown in table (13.2) for female gender is 1.919, P value =0.004, 95% CI (1.239 – 2.972).

Table 13.1: Association between demographic characteristics & statement "FP does not share management plan

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year &above	84 (61.8%) 86 (65.2%) 26 (57.8%)	52 (38.2%) 67 (34.8%) 19 (42.2%)	0.779 *
Gender Male Female	82 (50.6%) 118 (66.3%)	80 (49.4%) 60 (33.7%)	0.003 **
Education low Educated High Educated	92 (60.5%) 108 (57.8%)	60 (39.5%) 79 (42.2%)	0.606 *
Employment Employer non-Employer	72 (54.1%) 128 (62.1%)	106 (45.9%) 78 (37.9%)	0.144*
Marital Married Non-married	138 (56.6%) 62 (64.6%)	106 (43.3%) 34 (35.4%)	0.176*
Know FM Yes No	83 (63.8%) 117 (55.7%)	47 (36.2%) 93 (44.3%)	0.149*

Table 13.2: Regression analysis of "FP is sharing the management plan" variable in relation to participants' gender

Variable	B-coefficient	significance	Exp(B)	95% CI
Gender	0.652	0.004	1.919	1.239 -2.972 **

*: not significant **: significant

As it appears in table (14.1) The statistical test was applied to see the association between the agreement of "FP did appropriate referral to another specialty" and demographic characteristics which showed statistical significant association with age (p-value < 0.001) as well with employment status (p-value 0.001); and in those who know FM 75.8%, p-value 0.040.

After applying binary logistic regression analysis of participants' age and employment state in relation previous statment, by looking more into table 14.2 it shows the odds ratio of having the correct answer to that statement for age group above 30 years is 2.066 times compared to age group 30 years or less, p-value <0.001, 95% CI (1.417 – 3.014).

In another hand, the odds ratio of having the correct answer to that statement for employed is 0.502, p-value 0.015, 95% CI (0.288 – 0.874) since we have a negative coefficient relationship (-0.690); so having correct answer to this statement for being non-employed is 1.99 times better compared to employed, p-value 0.015, 95% CI (1.144 – 3.472).

In the other hand, the odds ratio of having the correct answer to that statement for to those who know FM is 1.688, p-value 0.055, 95% CI (0.988– 2.883) which is not significant so, it is considered as confounder.

Table 14.1: Association between demographic characteristics & FP has an appropriate referral to others specialty:

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	80 (58.8%) 123 (80.4%) 40 (88.9%)	56 (41.2%) 30 (19.6%) 5 (11.1%)	<0.001 **
Gender Male Female	120 (74.1%) 128 (71.9%)	42 (25.9%) 50 (28.1%)	0.654 *
Education low Educated High Educated	130 (69.5%) 117 (77%)	57 (30.5%) 35 (23%)	0.125 *
Employment Employer non-Employer	110 (82.7%) 137 (66.5%)	23 (17.3%) 69 (33.5%)	0.001 **
Marital Married Non-married	185 (75.8%) 63 (65.5%)	59 (24.2%) 33 (34.4%)	0.057 *
Know FM Yes No	103(79.2%) 145 (69%)	27 (20.8%) 65 (31%)	0.040**

Table 14.2: Regression analysis of "FP has an appropriate referral to others specialty in relation to variables:

Variables	B-coefficient	significance	Exp(B)	95% CI
Age	0.726	<0.001	2.066	1.417 – 3.014 **
Employment state	-0.690	0.015	0.502	0.288 – 0.872 **
know FM	0.524	.055	1.688	0.988 – 2.883 *

*: not significant **: significant

As offered by in table (15) The statistical test was applied to see the association between the agreement of "FP ensures privacy to patients" and demographic characteristics which showed not statistically significant.

Table 15: Association between demographic characteristics & statement "FP ensures privacy to patients"

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	126(92.6%) 140 (91.5%) 41(91.1%)	10 (7.4%) 13 (8.5%) 4 (8.2%)	0.863 *
Gender Male Female	149 (92%) 163 (91.6%)	13 (8%) 15 (8.4%)	0.983 *

Education low Educated High Educated	167 (89.3%) 144 (94.7%)	20 (10.7%) 8 (5.3%)	0.071 *
Employment Employer non-Employer	122 (91.7%) 189 (91.7%)	11 (8.3%) 17 (8.3%)	0.995 *
Marital Married Non-married	255 (92.2%) 87 (90.6%)	19 (7.8%) 9 (9.4%)	0.632 *
Know FM Yes No	124 (95.4%) 188 (89.5%)	6 (4.6%) 22 (10.5%)	0.056 *

*: not significant **: significant

In another hand, the table (16.1) bellow showed the association between the agreement of "FP is providing appropriate health education to patient" and demographic characteristics which showed there was statistically significant in high educated persons who had a correct answers percentage of 63.2%, p-value = 0.045. However.

After applying binary logistic regression analysis of participants' education level in relation to previous statment as appear in table (16.2) below the odds ratio of having the correct answer to the statement for High education level is 1.557 P-value 0.045, 95% CI (1.006 –2.410).

Table 16:1 Association between demographic characteristics & FP is providing health education to patient

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	80 (58.8%) 83 (54.2%) 28 (62.2%)	56 (41.2%) 70 (45.8%) 17 (37.8%)	0.734 *
Gender Male Female	89 (54.9%) 105 (59%)	73 (45.1%) 73 (41%)	0.451 *
Education low Educate High Educate	98 (52.4%) 96 (63.2%)	89 (47.6%) 56 (36.8%)	0.045**
Employment Employer non-Employer	78 (58.6%) 115 (55.8)	55 (41.1%) 91 (44.2%)	0.608 *
Marital Married Non-married	141(57.8%) 53 (55.2%)	103 (42.2%) 43 (44.8%)	0.665 *
Know FM Yes No	79 (60.8%) 115(54.8%)	51 (39.2%) 95 (45.2%)	0.277 *

Table 16.2: Regression analysis of "FP is an educator" in relation to participants Education level

95% CI	Exp(B)	significance	B-coefficient	Variable
1.006-2.410 **	1.557	0.047	0.443	Education level

*: not significant **: significant

By looking more into the table (17.1) below it showed the association between the agreement of "The FP can provide emergency care" and demographic characteristics which showed the statistically significant difference between highly and low educated person who had a correct answers percentage 61.2% and 77.5% respectively, p-value 0.001.

By applying binary logistic regression analysis of "FP can provide emergency care" in relation to participants' education level, as shown in table (17.2) the odds ratio of having the correct answer to that statement for low education level is 0.457, P-value = 0.001, 95% CI (0.284 –0.733) since we have a negative coefficient relationship (-0.784); so having correct answer to this statement for high education level is 2.188, p-value 0.001, 95% CI (1.364– 3.521).

Table 17.1: Association between demographic characteristics & statement "FP able to provide emergency care."

Table 17.1 Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
0.148 *	44 (32.4%) 42 (27.5%) 11 (24.4%)	92 (67.6%) 111 (72.5%) 34 (75.6)	Age 18-30 years 31-50 years 51 year & above
0.614*	45 (28.4%) 55 (30.9%)	116 (71.6%) 123 (69.1%)	Gender Male Female
0.001**	42 (22.5%) 59 (38.8%)	145 (77.5%) 93 (61.2%)	Education low Educated High Educated
0.564 *	42 (31.6%) 59 (28.6%)	91 (68.4%) 147 (71.4%)	Employment Employer non-Employer
0.891 *	73 (29.9%) 28 (29.2%)	171 (70.1%) 68 (70.8%)	Marital Married Non-married
0.926 *	39 (30%) 62 (29.9%)	91 (70%) 148 (70.5%)	Know FM Yes No

Table 17.2: Regression analysis of "The FP can deal with emergency cases" in relation to participants Education level

95% CI	Exp(B)	significance	B-coefficient	Variable
0.284 - 0.733 **	0.457	0.001	-0.784	Education level

*: not significant **: significant

As presented in table (18) below the statistical test was applied to see the association between the agreement of "FP promotes the community health" and demographic characteristics which showed not statistically significant.

Table 18: Association between demographic characteristics & statement "FP promotes the community health."

Chi-square	Wrong answer NO(%)	correct answer NO(%)	Demographic
0.483 *	15 (11%) 10 (6.5%) 5 (11.1%)	121 (89%) 143 (93.5%) 40 (88.9%)	Age 18-30 years 31-50 years 51 year & above
0.400 *	17 (10%) 14 (7.9%)	145 (89.5%) 164 (92.1%)	Gender Male Female
0.346*	19 (11.2%) 11 (7.2%)	168 (89.8%) 141 (92.8%)	Education low Educated High Educated
0.654 *	11 (8.3%) 20 (9.7%)	112 (91.7%) 186 (90.3%)	Employment Employer non-Employer
0.753 *	23 (9.4%) 8 (8.3%)	221 (90.6%) 88 (91.7%)	Marital Married Non-married
0.135 *	8 (6.2%) 23 (11%)	122 (93.8%) 187 (89%)	Know FM Yes No

*: not significant

As appear in table (19) below the statistical test was applied to see the association between the agreement of the statement "Preventive medicine is not a part of FM" and demographic characteristics which showed not statistically significant.

Table 19: Association between demographic characteristics & statement "Preventive medicine is a part of FM."

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	63 (46.3%) 66 (43.1%) 19 (42.2%)	73 (53.7%) 87 (56.9%) 26 (57.8%)	0.664 *

Gender Male Female	69 (42.6%) 83 (46.6%)	93 (57.4%) 95 (53.4%)	0.455 *
Education low Educated High Educated	78 (41.7%) 74 (48.7%)	109 (58.3%) 68 (51.3%)	0.199 *
Employment Employer non-Employer	53 (39.8%) 98 (44.6%)	50 (60.2%) 108 (52.4%)	0.162 *
Marital Married Non-married	114 (46.7%) 38 (39.6%)	130 (53.3%) 58 (60.4%)	0.233 *
Know FM Yes No	60 (46.2%) 92(43.2%)	70 (53.8%) 118 (56.8%)	0.673*

*: not significant

In the meanwhile, in table (20.1) it presents that, the statistical test was applied to see the association between the agreement of the statement "Rehabilitation is part of FM" and demographic characteristics which showed there was significant statistical difference in those who know FM p-value 0.037.

By apply binary logistic regression analysis of previous statement in relation to those who know the FM, as shown in tables (20.2) below, the odds of having the correct answer to the previous statement is 1.595, P-value 0.039, 95%CI (1.026 – 2.480).

Table 20.1: Association between demographic characteristics &answers of Rehabilitation is part of FM

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	57 (41.9%) 73 (47.7%) 19 (42.2%)	79 (58.1%) 80 (52.3%) 26 (57.8%)	0.704 *
Gender Male Female	66 (40.7%) 85 (47.8%)	96 (59.3%) 93 (52.2%)	0.194 *
Education low Educated High Educated	85 (45.5%) 66 (43.4%)	102 (54.5%) 86 (56.6%)	0.708 *
Employment Employer non-Employer	54 (40.6%) 97 (47.1%)	79 (59.4%) 109 (52.9%)	0.241 *
Marital Married Non-married	112 (45.9%) 39 (40.6%)	132 (54.1%) 57 (59.4%)	0.378*
Know FM Yes No	67 (51.5%) 84(40%)	63 (48.5%) 126 (60%)	0.037**

Table 20.2: Regression analysis of "Rehabilitation is part of family medicine" is in relation to participants who know FM

95% CI	Exp(B)	Significance	B-coefficient	Variable
1.026 – 2.480 **	1.595	0.039	0.467	Know FM

*: not significant **: significant

By looking more into the table (21.1) below it showed the association between the agreement to the statement "Home care is not FM" and demographic characteristics which showed there was a significant association with age p-value = 0.034.

By using binary logistic regression analysis of previous statement in relation to participants' age group, the odds of having the correct answer to that statement for age above 30 years is 0.705 time compared to age 30 years or less, P value = 0.83, 95% CI (0.475 – 1.047) which is not statistically significant.

Table 21.1: Association between demographic characteristics & answer of FM is not the home care.

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	35 (25.7%) 21 (13.7%) 7 (15.6%)	101 (74.3%) 132 (86.3%) 38 (84.4%)	0.034 **
Gender Male Female	25 (15.4%) 38 (21.3%)	137 (84.6%) 140 (78.7%)	0.161 *
Education low Educated High Educated	32 (17.1%) 31 (20.4%)	155 (82.9%) 121 (79.6%)	0.440 *
Employment Employer non-Employer	21 (15.8%) 42 (20.4%)	112 (84.2%) 164 (79.6%)	0.288 *
Marital Married Non-married	44 (18%) 19 (19.8%)	200 (82%) 77 (80.2%)	0.707 *
Know FM Yes No	28 (21.5%) 35 (16.7%)	102 (78.5%) 175 (83.3%)	0.261 *

Table 21.2: Regression analysis of "Home care is not FM" in relation to participants age groups

Variable	B-coefficient	significance	Exp(B)	95% CI
Age	0.349-	0.083	0.705	0.475 – 1.047 *

*: not significant **: significant

In another hand in table (22) it showed the association between the agreement of "FM is providing care for both community & individual" and demographic characteristics which showed not statistically significant.

Table 22: Association between demographic characteristics FM is providing care of community & individual.

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	49 (36%) 61 (39.9%) 12 (26.7%)	87 (64%) 92 (60.1%) 33 (73.3%)	0.108 *
Gender Male Female	53 (32.7%) 69 (38.8%)	109 (67.3%) 109 (61.2%)	0.246 *
Education low Educated High Educated	65 (34.8%) 57 (37.5%)	122 (65.2%) 95 (62.3%)	0.601*
Employment Employer non-Employer	44 (33.1%) 78 (37.9%)	89 (66.9%) 128 (62.1%)	0.370 *
Marital Married Non-married	91 (37.7%) 31 (32.3%)	153 (62.7%) 65 (67.7%)	0.387 *
Know FM Yes No	48 (46.9%) 74(35.2%)	82 (63.1%) 136 (64.8%)	0.653 *

*: not significant

By looking more into table (23.1) it displayed the association between the agreement of "FM does not take care for adult and demographic characteristics which shows there were significant more to females who had a correct answers percentage 83.1%, p-value 0.015, high educated person who had a correct answers percentage of 84.9% p-value 0.007 and those who know FM by 84.4% 73.8%, p-value 0.020.

By using binary logistic regression analysis of previous statment in relation to participants' gender, education level & knowing of FM, as shown in table (23.2) the odds ratio of having the correct answer to that statement for female gender is 1.858, P-value 0.023, 95% CI (1.101 – 3.165).

In another hand, the odds of having the correct answer to that statement for higher education level is 1.981, P value = 0.017, 95% CI (1.131–3.471). By looking more into that table it shows the odds of having the correct answer to that statement to those who know the FM is 1.912, P-value = 0.079, 95% CI (0.942– 3.018). So, it is not

significant, and it is a confounder.

Table 23.1: Association between demographic characteristics and the statement "FM does not take care of the adult patient only."

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	109 (80.1%) 121 (79.1%) 31 (68.9%)	27 (19.9%) 32 (20.9%) 14 (31.1%)	0.378 *
Gender Male Female	117 (72.2%) 148 (83.1%)	45 (27.8%) 30 (16.9%)	0.015 **
Education low Educated High Educated	136 (72.7%) 129 (84.9%)	51 (27.3%) 23 (15.1%)	0.007 **
Employment Employer non-Employer	99 (74.4%) 165 (80.1%)	34 (25.6%) 41 (19.9%)	0.220 *
Marital Married Non-married	191 (78.3%) 74 (77.1%)	53 (21.7%) 22 (22.9%)	0.811*
Know FM Yes No	110 (84.6%) 155 (73.8%)	20 (15.4%) 55 (26.2%)	0.020 **

Table 23.2: Regression analysis of "FP has an appropriate referral to others specialty" about variables:

Variables	B-coefficient	significance	Exp(B)	95% CI
Gender	0.619	0.023	1.858	1.101 – 3.165 **
Education level	0.684	0.017	1.981	1.131 – 3.471 **
know FM	0.522	0.079	1.686	0.942 – 3.018 *

*: not significant **: significant

As shown in table (24.1) below the statistical test was applied to see the association between the agreement of "FM is not only treating chronic disease" and demographic characteristics which show there were significantly more females who had a correct answers percentage 73.6%, P-value 0.002), and there were significantly more in non-employers 70.4%, 58.6% p-value 0.026.

By using binary logistic regression analysis of previous statement in relation to participants' gender and employment state. By looking in the table (24.2), it shows the odds of having the correct answer to that statement for female gender is 1.85, P-value 0.019, 95% CI (1.105 – 3.099).

By looking more into the table (23.2) the odds of having the correct answer to that statement for non-employer is 1.251 P-value 0.399, 95% CI (0.744 –2.103) which is not statistically significant.

Table 24.1: Association between demographic characteristics FM is not only treating chronic disease

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	90 (66.2%) 103 (67.3%) 28 (62.2)	46 (33.8%) 50 (32.7%) 17 (37.8%)	0.780 *
Gender Male Female	93 (57.4%) 131 (73.6%)	69 (42.6%) 47 (26.4%)	0.002 **
Education low Educated High Educated	124 (66.3%) 100 (65.8%)	63 (33.7%) 52 (34.2%)	0.920 *
Employment Employer non-Employer	78 (58.6%) 145 (70.4%)	55 (41.4%) 61 (29.6%)	0.026 **
Marital Married Non-married	163 (66.8%) 61 (63.5%)	81 (33.2%) 35 (36.5%)	0.568*
Know FM Yes No	92 (70.8%) 132 (62.9%)	38 (29.9%) 78 (37.1%)	0.135 *

Table 24.2: Regression analysis of "Family physician only treat chronic diseases" in relation to variables:

Variables	B-coefficient	significance	Exp(B)	95% CI
Gender	0.615	0.019	1.850	1.105 – 3.099 **
Employment state	0.224	0.399	1.251	0.744 – 2.103 *

*: not significant **: significant

By looking into in table (25), it showed the association between the agreement of "FM is providing care for both genders" and demographic characteristics which showed not statistically significant.

Table 25: Association between demographic characteristics and the statement "FM is treating male &female genders."

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	100 (73.5%) 125 (81.7%) 35 (77.8%)	36 (26.5%) 28 (18.3%) 10 (22.2%)	0.408 *
Gender Male Female	123 (75.9%) 142 (79.8%)	39 (24.1%) 36 (20.2%)	0.393 *
Education low Educated High Educated	140 (74.9%) 125 (82.2%)	47 (25.1%) 27 (17.8%)	0.102 *
Employment Employer non-Employer	105 (78.9%) 159 (77.2)	28 (21.1%) 47 (22.8%)	0.703 *
Marital Married Non-married	194 (79.5%) 71 (74%)	50 (20.5%) 25 (26%)	0.267 *
Know FM Yes No	108 (82.1%) 157 (74.8%)	22 (16.9%) 53 (25.2%)	0.027 *

In another hand table (26.1) showed the association between the agreement of "FM is taking care of the psychosocial aspect of the patient" and demographic characteristics which showed there were significantly more females who had a correct answers percentage 79.8%, p-value 0.004.

By using binary logistic regression analysis of previous statement in relation to participants' gender, as shown in table (26.2) the odds ratio of having the correct answer to that statement for female gender is 2.028, P-value 0.005, 95% CI (1.243 – 3.308).

Table 26.1: Association between demographic characteristics & statement "FM is taking care of the psychosocial aspect of the patient."

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	95 (69.9%) 114 (74.5%) 35 (77.8%)	41 (30.1%) 39 (25.5%) 10 (22.2%)	0.636 *
Gender Male Female	107 (66.0%) 142 (79.8%)	55 (34%) 36 (20.2%)	0.004 **
Education low Educated High Educated	139 (74.3%) 110 (72.4%)	48 (25.7%) 42 (27.6%)	0.684 *

Employment Employer non-Employer	90 (67.7%) 158 (76.7%)	43 (32.3%) 48 (23.3%)	0.067 *
Marital Married Non-married	183 (75%) 66 (68.7%)	61 (25%) 30 (31.3%)	0.241 *
Know FM Yes No	98 (75.4%) 151 (79.1%)	32 (24.6%) 59 (28.3%)	0.496 *

Table 26.2: Regression analysis of "FM is taking care of psychosocial aspect" in relation to participants gender

Variable	B-coefficient	significance	Exp(B)	95% CI
Gender	0.707	.005	2.028	1.243 – 3.308 **

*: not significant **: significant

In the meanwhile, table (27.1) below showed the association between the agreement of "FM is treating common diseases among community" and demographic characteristics which showed there were significantly more females who had a correct answers percentage 83.7%, P-value 0.029.

By using binary logistic regression of previous statement in relation to participants' gender, as appear in table (27.2) the odds ratio of having the correct answer to that statement for female gender is 1.798 P-value 0.0303, 95% CI (1.058 – 3.058).

Table 27.1: Association between demographic characteristics & statement "FM is treating common diseases among the community."

Demographic	correct answer NO(%)	Wrong answer NO(%)	Chi-square
Age 18-30 years 31-50 years 51 year & above	103 (75.7%) 126 (82.4%) 37 (82.2%)	33 (24.3%) 27 (17.6%) 8 (17.8%)	0.154 *
Gender Male Female	120 (74.1%) 149 (83.7%)	42 (25.9%) 29 (16.3%)	0.029 **
Education low Educated High Educated	147 (78.6%) 122 (80.3%)	40 (21.4%) 30 (19.7%)	0.708 *
Employment Employer non-Employer	101 (75.9%) 167 (81.1%)	32 (24.1%) 39 (18.9%)	0.257 *
Marital Married Non-married Know FM	192 (78.7%) 77 (80.2%)	52 (21.3%) 19 (19.8%)	0.756 *
Yes No	107 (82.3%) 152 (77.1%)	23 (17.7%) 48 (22.9%)	0.255 *

Table 27.2: Regression analysis of "FM is treating common diseases among community" in relation to participants gender

Variable	B-coefficient	significance	Exp(B)	95% CI
Gender	0.587	0.303	1.789	1.058 – 3.058 **

*: not significant **: significant

DISCUSSION

This study investigates awareness of patients about the role of FP and identifies gaps in knowledge and perception among them in Al-Ahsa PHC centers during the study period.

Our study response rate was 96 %, compared to study done in India about Patient Perceptions and Expectations from PHC Providers, resulting in a response rate of approximately 72.92%. (Ardey, 2015)

340 patients visiting FM consultation Clinics were interviewed, of which fifty-two percent (52.4%) were women. The mean age was 35.31 ± 12.26 years. Compared to another study done in Karachi, Aga Khan University hospital about Perception of FM and the study showed a total of 100 pa-tients visiting the Specialist Clinic were interviewed, of which fifty-four percent (54%) were women. The mean age was 36.3 years. (Huda, 2004)

Since we have documented the awareness and perceptions of patients visiting FP, about FP and their role, our results showed 42.1% (143) have good awareness about the role of the FP, and 57.9% (197) have poor awareness about the role of the FP. And only 43.8% (149) have a good perception about the FM and 56.2% (191) have a poor perception about the concept of FM. That means the majority had less awareness and ex-pectation about the role of the FP.

As well, we had a significant result about those who previously known FM revealed better awareness of FM roles as it showed in (table 6). It is not surprising result that patients who know FM had better perception and awareness about the roles of FM. As it shows in a study done in Canada about Measuring Patients' Perceptions of Patient-Cantered Care, the study demonstrates valid measures of perceptions of patient-centered care are applied within the qualitative interviews with primary care patients that could help to have a most meaningful impact on long-term outcomes better. (Haggerty & Lambert, 2011)

As for referring to other specialties, it appears the higher the age of participants the more likely to have the correct response to FP role of referring appropriately to other specialties. In a study based on data from the second national morbidity survey, Fleming and colleagues demonstrated a positive relationship between age and referral rates and showed that men had a higher referral rate than women (Webb, & Lloyd, 1994).

Another study, which is done in north London shows a relationship between other patient factors and the actions taken by the general practition-ers. Men were more likely to be referred than women and older patients were more likely to receive a prescription than younge ones. There was no relationship between age and referral or patient sex and prescribing. (Webb, & Lloyd, 1994)

As it appears in the table (14.1), the statistical test was applied to see the association between the agreement of "FP did an appropriate referral to another specialty" and demographic characteristics which showed significant statistical association with employment status mainly non-employer. Non-Employer can be either jobless persons and retired per-sons. Keeping with the common perception that unemployment is an ad-verse life event or condition, we found that the evidence strongly supports an association between unemployment and a greater risk of morbidity (physical or mental illness or use of health care services), both at the popu-lation and individual levels, and a greater risk of mortality at the population level. Several studies reported increased use of general health care ser-vices, evinced by increases in such measures as visits to physicians, hos-pital inpatient or outpatient admissions and use of prescription medication. Therefore, increase referral rates, which might support our results that non-employer, agree, "FP did an appropriate referral to another specialty. (Jin, Shah, & Svoboda, 1995)

In contrast, one study, which is done in Germany, investigates the mechanisms behind the health, effects of retirement. They found that re-tirement improves subjective health status and mental health, while also reducing outpatient care utilization. Relief from work-related stress, in-creased sleep duration, as well as more frequent physical exercise, seem to be key mechanisms through which retirement affects health. So, we ex-pect less exposure to the referral process. (Eibich, 2014)

Due to the cultural difference between Saudi Arabia and Germany, we suggest the effect of non-employment status have more health-related problems compared to employed persons and so more likely to be referred to another level of care(Kirmayer LJ 1984) .

As it is shown in our previous results (table 13, 23, 24, 26, and 27), there were significantly more females who had a correct answer. This pre-sented female had well understanding about FP role. And we suggested the reason is related to the female had more responsibility regard her family and the biological difference between female and male all that will lead her to seek care and visit family medicine clinic frequently(Vlassoff C 2007).

A study done on United Stat of America showed that Women in the Western world live longer than men and have lower mortality rates for most causes of death. However, in sharp contrast to their favorable mortality, women report more physical and mental illness than men and utilize health services at substantially higher rates. These latter

differences are documented with health survey data from the United States and Great Brit-ain. Three explanatory models to account for sex differences in illness ex-perience are considerate: (1) women report more illness than men because it is culturally more acceptable for them to be ill; (2) the sick role is more compatible with women's other role responsibilities, and (3) women have more illness than men because their assigned social roles are more stress-ful. (Nathanson, 1975)

In another hand it appears the higher educated participants had more correct response than low educated ones (table 16, and 23) we had proposed that education may positively influence health, as shown in this result the high education level patients had more awareness about FP services This could be related to superior socioeconomic status and easier access to health .(Jurges H, Reinhold S, Salm M 2011)

Study done on the US had formulated a hypothesis they find that education may protect against disease by influencing lifestyle behaviors, problem-solving abilities, and values. Moreover, education may facilitate the acquisition of positive social, psychological, and economic skills and assets, and may provide insulation from adverse influences. Such skills and assets that may accompany higher educational attainment include positive attitudes about health, access to preventive health services, and higher self-esteem and self-efficacy. (Fiscella, Goodwin, Stange, & York, 2002)

As it is revealed in our previous results (table 20.2) those who know FM have a better response for acknowledging rehabilitative care is a part of FM. We suggested those results become significant because those who know what FM is about, they know how the FM approaches the patient by using patient-center approach and what services can the FP provided in the clinic. As it shows in a study done in the United States about The Future of Family Medicine and community. They supposed that the patient preferred Patient-Centered Care based on a patient-physician relationship that is highly satisfying and humanizing to the patient and the physician. In the patient center model, the patient, not the physician, occupies center stage So practices make every effort to meet patient and community needs for integrated care by giving patients what they want and need including preventive care, acute care, rehabilitative care, chronic illness care, and supportive care when they want and need it. (Graham R, Bogdewic SP, Swanson J 2004)

Recommendations:

Based on the findings of this study and because of the Family Practice is still a developing specialty in Saudi Arabia We recommend:

1- More researches are needed to be conducted about the status of Family Practice in Saudi Arabia.

2- To develop awareness programs among the general population concerning Fps.

3- to establish a campaign that raises more awareness on the role of the FP in partnership with the post graduated center of FM in Al-Ahsa.

In conclusion:

Poor awareness and perception regarding the role of FM are found in this study in Al-Ahsa area. More programs to improve it are needed. We suggest empowering the communication between the FP and other specialties to ensure the best healthcare serves to the patient.

Appendix:

Patients Perception about the FP among PHC, Al Ahasa 2017-2018 Questionnaire

1. Demographic data

1- How old are you?

……

2- Gender 1-Male 2-Female

3- Education 1-Illiterate 2-Primary School

3- middle school 4-High School 5-university

4- Employment 1-Employed 2-Unemployed 3-Retired

5- Marital Status 1-Single 2- Married 3- Separated 4- Widowed

6- Nationality: 1-Saudi 2-non-Saudi

7- **Do you suffer from any medical illness?**

O healthy
O diabetes mellitus
O hypertension
O anemia
O bronchial asthma
O other: ……

8- Do you have any idea about family medicine?

1-No, I don't know 2-yes

2. Role of Family physician:

(SDA=Strong Disagree, DA=Disagree, N=Neutral, A=Agree, SA=Strong Agree)

Questions	SDA	DA	N	A	SA
9. Family physician take a complete history					
10. family physician familiar with your family history					
11. A family physician doing an appropriate physical examination					
12. A family physician doing a proper investigation					
13. Family physician do not share management plane with patient					
14. The family physician has an appropriate referral to another specialty					
15. Family physician ensure privacy to patients					
16. A family physician is not providing appropriate health education to patient					
17. Family physician able to provide emergency care					

3. Perception and expectation of family physician:

Questions	SDA	DA	N	A	SA
18. Family physician promote the community health					
19. Preventive medicine is not a part of family medicine					
20. rehabilitation is not part of family medicine					
21. Home care is a family medicine					
22. Family medicine is providing care of community rather than individual					
23. Family medicine is providing care only for adult					
24. Family medicine is treating chronic disease only					
25. Family medicine is treating male gender only					
26. Family medicine is taking care of the psychosocial aspect of the patient					
27. family medicine is treating common diseases among community					

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Abbreviations

PHC Primary Health Care
MOH ministry of health
KSA Kingdom of Saudi Arabia

AAFP American Academy of family medicine
FP Family Physician
FM Family Medicine

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