Family Medicine as a Future Specialty among Interns at Zagazig University Hospitals Amany M. AbdAllah^{1*}, Lamiaa L. Elhawy²

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Abstract:

Background: Family Medicine, a very important emerging specialty, is intended to provide continuing, comprehensive health care for individuals and families. Large numbers of family physicians are needed for the overall integrate health-care system. Factors affecting the choice of this specialty were personal preferences, an interest in the field, and practical experience of the subject. **Objectives:** To assess attitude of interns toward Family Medicine as a future specialty, and to determine association between some personal factors and their attitudes. **Methods:** A cross sectional study on was conducted on (116) interns working at Zagazig university hospitals (from June to September 2019). All interns were interviewed using semi-structured questionnaire to identify their sociodemographic data, future specialty and attitude towards Family Medicine as a future specialty. **Results:** About 9% of interns wanted to be family physicians and (43.1%) had positive attitude about Family Medicine. Most common reasons of not choosing it as a future specialty were lack of knowledge (55%), lower social respect (43.2%) and low financial gain (39.2%). There was significant relation between attitude and all of gender, marital status and their knowledge about Family Medicine. On multivariate analysis, male gender and lack of knowledge were significant independent risk factors for this negative attitude. Conclusion: Interns had a negative attitude towards Family Medicine. Lack of knowledge, lower social respect and lower financial gain were most common causes of not choosing Family Medicine as a future

Keywords: Attitude, Family Medicine, Interns, Specialty

Introduction:

Family medicine is a medical specialty that manages common and long-term illnesses in children and adults focusing on their overall health and well-being. (1) Family Medicine, which has become an emerging specialty in many countries, is concerned with providing continuing, comprehensive health care for all individuals and families. It integrates the biological, behavioral, and clinical sciences. (2)

Family medicine is considered a specialty that facilitates access to high-standard quality health services for most individuals and helps in decreasing the growing pressure on the referral hospitals. (3) Family medicine discipline requires that medical practitioners must have a high level of commitment to maintain a high level of

individuals' quality of life through preventive and curative therapy. (4)

A large numbers of family physicians are needed for the overall health-care system because they manage patients in the primary health-care centers and thus decrease the rate of unnecessary hospital admission.⁽⁵⁾

There are many factors which affecting the choice of family medicine as a future specialty like personal factors, interest in this field, practical experience of the subject ⁽⁶⁾, the good relationship and interaction between patient and the physician, the faculty's attitudes and interests and the enjoyment during studying the family medicine.⁽⁷⁾

Low remuneration, role models, and a negative impression of family medicine specialty may

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also be incriminated as causes for not choosing this specialty. (8) These factors need to be explored to determine any future shortage of family physicians and find the solution of this problem. (9)

The aim of this work is to assess attitudes of interns working at Zagazig University hospitals toward the choice of family medicine as a future specialty and to determine association between some personal factors and attitude of interns toward family medicine as a future specialty.

Methods:

A cross sectional study was conducted among all interns (116 interns) who were working in Zagazig university hospitals (from June 2019- September 2019).

Inclusion Criteria: All interns of both genders working in Zagazig university hospitals during the study period.

Exclusion Criteria: Those who worked at places other than Zagazig university hospitals and interns who will refuse to complete the questionnaire or not be cooperative.

Study Tools: The semi-structured questionnaire consisted of three parts:

1st part: Socio-demographic characteristics: as age, sex, residence and marital status.

2nd part: Attitude of interns towards family medicine as a future sociality: a selfadministered questionnaire derived from primary care attitude scale. (10)

It consisted of 25 questions that measures the attitudes on a 5-point likert scale, i.e., 1 = strongly disagree, 2 = disagree, 3 = natural, 4 = naturalagree, and 5 = strongly agree. This coding was revised in some questions like family physicians less focus on research, Medicine is becoming so specialized in that family medicine may become obsolete, other specialists make more money than family physicians and it is impossible for family physicians to know enough. Total score ranged from 25 to 125. (1)

Internal (standardized consistency Cronbach's α) of this tool was good (0.76) according to a previous study. (10)

Total attitude scale was divided into positive or negative according to cut off point is 60% whereas > 60 was considered as positive attitude and ≤ 60% was considered as negative attitude.(11)

3rd part: Open-ended question structured by the author, (What will be your future specialty and why will not you choose Family Medicine as a future specialty (directed to interns who did not choose Family Medicine as a future specialty?).

The content validity of questionnaire was evaluated by panel of experts of Community Medicine from Community, Environmental and Occupational Medicine department, Zagazig University.

Administrative Design: An official permission from Family and Community Medicine Department, Faculty of medicine, Zagazig University was delivered to head mangers of Zagazig University hospitals. The title and objectives of this study were explained to the interns to ensure their cooperation.

Ethical consideration: The study participants were informed about the nature and the purpose of the study and verbal consent was taken before interview. Participant data are confidential. Official approval from the Institutional review board (IRB) was taken (ZU-IRB #5753).

Analysis: Data analysis was performed using the software SPSS (Statistical Package for the Social Sciences) version 20. Categorical variables were described using their absolute frequencies and percentages. They were compared using Chi square test and fisher exact test when appropriate. Logistic regression analysis was used to identify risk factors for negative attitude towards Family Medicine. Statistically significant difference was set at p<0.05 Highly significant difference was present if $p \le 0.001$.

Results:

A total of 116 interns were included in the study. About (51%) of the studied participants were females. Age ranged from (22 to 25) years with mean (\pm SD) age (23.06 \pm 0.636) years. About (60%) came from urban areas and (66.4%) were single. Thirty-seven interns had one family member wording as physicians, out of them (48.6%) working as family physicians. Only (21.6%) received educational materials about FM (either sessions, lectures or senior advice) (Table 1).

On asking about future specialty, thirty-one percent of them were uncertain about what to choose. About 9% wanted to be family physicians. About 3%, 3%, 10%, 13%, 8%, 3%, 3%, 5% and 10% wanted to be internist, rheumatologists, dermatologist, general orthoperdic surgeon, surgeon, ophthalmologists, otolaryngologists, urologists, and obstetricians, respectively.

On assessing attitude about family medicine among (116) interns, total score ranged from (24 to 90) with mean $\pm SD$ (63.28 \pm 21.037) (Table 2). Larger percentage strongly agreed with that Family physicians had always a job and they focus on preventive and curative services, almost dealing only with mild infections, family medicine became obsolete, little liability for suing with malpractice, little financial benefits, and little role in research (Table 2).

On using (60%) as cutoff for positive attitude, (43.1%) had positive attitude about FM (Figure 1). On directly asking about cause of not choosing FM as a future specialty, about (30%) was interested in other specialty. About one fifth thought that they had low interest in it. About (55%) reported that they did not have enough knowledge and (39.2%) denoted that financial gain is low while (43.2%) denoted that FM had less respect in society (**Table 3**)

There is significant relationship between attitude of interns towards Family Medicine and some of the data retrieved from the interns such gender, marital status and receiving as

knowledge about FM. On the other hand, there is non-significant between attitude and either age group, residence, or having family member wording as physician or his/her specialty (Table 4). Male gender, single and lack of education about FM significantly increased risk by 5.69, 3.71 and 27.26 folds respectively (**Table 4**).

On doing logistic regression analysis of factors significantly associated with negative attitude, male gender and lack of knowledge were significant independent risk factors for negative attitude (AOR=7.066 and 29.322) respectively. However, being single was non-significant independent risk factors (AOR=5.459, p>0.05) (**Table 5**).

Discussion:

Family Medicine is a specialty emphasizes on the overall health and permits patients to have access to more advanced health services. (3-5) Family physicians are high quality specialists who manage common acute and chronic illnesses of different age groups in the primary health care centers (comprised preventive, curative and rehabilitative care from womb to tomb). This in turn decreases admission to and pressure on the secondary and tertiary hospitals. (1)

As application of Egypt targets comprehensive health insurance, there is growing demand on family physicians. Attitude of interns towards Family Medicine shapes future of this specialty in Egypt. Therefore, it is a very important point of research that needs detailed analysis.

The current study stated that 8.6% of interns intended to choose Family Medicine as a future specialty, which represented a bad indicator for future of this speciality. Regarding attitude, 43.1% had positive attitude towards Family Medicine which can be promising.

Among the independent risk factors for negative attitude towards Family Medicine was gender. Male interns needed financial security, good image in the society and both are lacking with Family Medicine. Female physicians seek a relatively comfortable specialty without night shifts; needs which are partially met by Family Medicine.

Lack of educational materials about what is Family Medicine, role of family physicians and society illiteracy about Family Medicine were significant independent risk factors for negative attitude.

Being a relatively recent specialty that differs from the causal general practitioner, lack of Family Medicine courses provided undergraduate students and lack of educational sessions about how to choose the future specialty, all hand in hand makes Family Medicine undesirable specialty.

Being single was non-significant risk factor for negative attitude can be explained by that married female interns traditionally look for 'a cold specialty without night shifts' that is linked mainly to Family Medicine as viewed by the general community.

Focusing on individual questions, Family Medicine was viewed as a low-income specialty with poor chance for learning clinical procedures, poor social respect, lower chance for further research and dealing only with traditional infections that can be simply managed by general practitioners were among the obstacles for choosing it as a future specialty.

A previous study in Egypt was conducted on (451) medical students. About (10%) of them believed in the vital role that Family Medicine can play in Egypt's healthcare system, and only (4.7%) showed an intention to choose it as a future career. Students choosing Family Medicine as a first-career choice were more likely to have a prior contact with family physicians as consumers. Exposure to an undergraduate Family Medicine curriculum was associated with increased knowledge about family medicine but not the intentions to pursue it as a career. (12)

In a previous study in Pakistan, major factor for not selecting Family Medicine was lack of awareness about the scope of specialty. Other factors included personal interest, feasibility, and family influence. (13)

In a former study on (316) final year medical students, predictors of choosing Family Medicine were linked three to sets: comprehending the discipline, being a part in a coherent health care system and personcenteredness. The most important predictor is an appreciation of a long-term doctor-patient relationship.(14)

A previous Spanish study highlighted the problem of shortage in physicians choosing this specialty as a future specialty in agreement with the current finding. (15)

In a prior study conducted in Saudi Arabia, many students agreed that family physicians build long-term relationships with patients, focusing on the whole patients, and making important contributions to medicine. (1)

In a previous study, there was statistically nonsignificant difference between attitude and gender (P = 0.544) in disharmony with the current study. (16) However, a research conducted in Saudi Arabia conveyed that females, in agreement with the current study, preferred Family Medicine more. (1)

Furthermore, a local study conducted in Taif city reported that there was a significant relation between gender and the perceptions of the family medicine specialty, with female students showing more interest (P < 0.001). (17)

A study conducted in Riyadh city showed that most of the participants believed that Family Medicine is an essential component of the health-care system in Saudi Arabia in agreement with the current findings. (7)

A Ghanaian study reported that Family Medicine was the least preferred medical specialty for postgraduate training (2.4%) although 88% of the students acknowledged its importance. (18) A further study conducted in Greece, showed that only (4.3%) considering family medicine as a possible future specialty. (19)

The results of this study highlighted the problem that may face Family Medicine as a future specialty. It showed that the family medicine clinical rotation played a major role in the decisions medical students made in deciding on family medicine as a future career. Furthermore, most medical students become more inclined to practicing family medicine when their knowledge of the specialty had vastly improved during the clinical rotation or receiving educational sessions about Family Medicine.

Limitations: The study can be explained in context of some limitations including cross sectional study design that gave only associations between risk factors and negative attitude and the relatively small sample size in our study.

Conclusion: There is a negative attitude towards Family Medicine that can be attributed to the lack of educational materials about Family Medicine. Low financial resources and lower respect of such specialty in society were among causes of not choosing Family Medicine as a specialty.

Recommendations: We recommend application of educational lectures and provision of educational materials for both undergraduate and interns about Family Medicine. Also, we need a social move to highlight role of Family Medicine with financial

support to improve attitude to such vital specialty.

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Conflict of Interest: There was no conflict of interest.

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Table (1): Distribution of the Interns according to their Demographic Data and Future Specialty

Parameters	N=116 (%)			
Gender:				
■ Male	57 (49.1)			
■ Female	59 (50.9)			
Age (years):				
■ Mean ± SD	23.06 ± 0.636			
■ Range	22 - 25			
Residence:				
Rural	46 (39.7)			
■ Urban	70 (60.3)			
Marital status:				
Single	77 (66.4)			
■ Married	39 (33.6)			
Family member is physician:				
■ No	79 (68.1)			
■ Yes	37 (31.9)			
Specialty of family member (if yes)	N=37			
 Family medicine 	18 (48.6)			
■ Other	19 (51.4)			
Receiving any educational materials				
about family medicine:				
■ No	91 (78.4)			
■ Yes	25 (21.6)			

Table (2): Attitudes of the Interns toward Family Medicine Specialty

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		N(%)	N(%)	N(%)	N(%)	N(%)
•	There is demand for more family physicians	6 (5.2)	22 (19)	30(25.9)	11(9.5)	47(40.5)
•	Family physicians will always have a job	33 (28.4)	21 (18.1)	19(16.4)	6 (5.2)	37(31.9)
•	Family medicine is a well-respected field of practice in medicine	20 (17.2)	27 (23.3)	34(29.3)	24(20.7)	11(9.5)
•	Family physicians have more opportunity for work-life balance	11(9.5)	15(12.9)	45(38.8)	34(29.3)	11(9.5)
•	Family medicine physicians are predominantly female	9(7.8)	10(8.6)	47(40.5)	39(33.6)	11(9.5)
•	Family physicians focus on prevention as well as treatment of disease	12(10.3)	4 (3.4)	9 (7.8)	38(32.8)	53(45.7)
•	Family physicians have the opportunity to perform different procedures	31 (26.7)	26 (22.4)	34(29.3)	25(91.6)	0 (0)
•	Family physicians build long-term relationships with patients	9 (7.8)	8 (6.9)	32(27.6)	51 (44)	16 (13.8)
•	Family medicine focuses on the whole patient	24 (20.7)	19 (16.4)	26(22.4)	28(24.1)	19(16.4)
•	Family physicians spend a lot of time in diagnosing the common cold, ear infections, etc.	0 (0)	9 (7.8)	19(16.4)	40(34.5)	48(41.4)
•	Family physicians are "gatekeepers" and mostly refer to other specialists	44(37.9)	4 (3.4)	4 (3.4)	20(17.2)	44(37.9)
•	Family medicine makes important contributions to medicine	30(25.9)	33(28.4)	8(6.9)	32(27.6)	23(19.8)
•	Family physicians treat a wide range of complex diseases	35(30.2)	33(28.4)	12(10.3)	27(23.3)	9(7.8)
•	Family physicians are less focused on research	11 (9.5)	3(11.2)	30(25.9)	20(17.2)	42 (36.2)
•	Medicine is becoming so specialized in that family medicine may become obsolete	15 (12.9)	24 (20.7)	12(10.3)	16(13.8)	49 (42.2)
•	Other specialists make more money than family physicians	9 (7.8)	24 (20.7)	19(16.4)	17(14.7)	47 (40.5)
•	Family medicine is diagnostically challenging	37(31.9)	18(15.5)	10(8.6)	28(24.1)	23(19.8)
•	It is impossible for family physicians to know enough	15(12.9)	15(12.9)	21(18.1)	36(31)	29(25)
•	Training in other specialties is harder than in family medicine	38(32.8)	9(7.8)	32(27.6)	27(23.3)	10(8.6)
•	Family physicians are less likely to be sued for malpractice	28(24.1)	0 (0)	10(8.6)	38(32.8)	40(34.5)
•	Family medicine is as exciting as other specialties	39(33.9)	19(16.4)	22 (19)	28(24.1)	8 (6.90)
•	Family physician receives the same amount of training as other specialists	49 (42.2)	7 (6)	8 (6.9)	50(43.1)	2 (1.7)
To	tal score: Mean ± SD Range	63.284 ± 23 $24 - 90$	1.037			

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Table (3): Distribution of the Interns

	N=74 (%)
 Interested in other specialties as a career 	22 (29.7)
 Low interest or intellectually less challenging 	15 (20.3)
Do not know much about Family Medicine	41 (55.4)
Financial gain is less	29 (39.2)
Less clinical application	11 (14.9)
Remembering data is difficult	11 (14.9)
 Less respect in the society 	32 (43.2)

Table (4): Risk Factors of Negative Attitude towards Family Medicine among the Interns

Risk factors	Attitude tow	Attitude towards FM		Test		
	Total	Negative attitude	p	COR (95% CI)		
	N=116 (%)	N=66(%)				
Age:						
■ 22 – <24 years	99	57 (57.6)	0.721	1.21(0.43 - 3.39)		
■ 24 – 25 years	17	9 (52.9)				
Gender:						
Male	57	44 (77.2)	<0.001**	5.69 (2.52 – 12.84)		
Female	59	22 (27.3)				
Residence:						
Rural	46	31 (64.7)	0.064	2.07(0.95 - 4.48)		
Urban	70	35 (50)				
Marital status:						
Single	77	52 (67.5)	0.001**	3.71(1.65 - 8.35)		
Married	39	14 (35.9)		, , ,		
Family member is		, , ,				
physician:	79	46 (58.2)	0.672	1.19(0.54 - 2.6)		
■ No	37	20 (54.1)				
Yes		, , ,				
Family member Specialty (if						
yes)	18	9 (50)	0.63	0.73(0.199 - 2.661)		
Family medicine	19	8 (42.1)		, ,		
Other		, ,				
Receiving any educational						
materials about family						
medicine:	91	64 (70.3)	<0.001**	27.26 (6 – 123.8)		
 No 	25	2(8)				
■ Yes						

COR Odds ratio CI Confidence interval **p≤0.001 is statistically highly significant

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Table (5): Multivariate Analysis of Risk Factors for Negative Attitude towards Family Medicine

	β	p	Adjusted	95% C.I.	
			Odds ratio	Lower	Upper
■ Gender (Male)	1.955	<0.001**	7.066	2.539	19.659
■ Single	1.048	0.056	2.853	0.973	8.363
Not receiving educational materials about FM	3.378	<0.001**	29.322	5.459	157.491

CI Confidence interval **p≤0.001 is statistically highly significant.

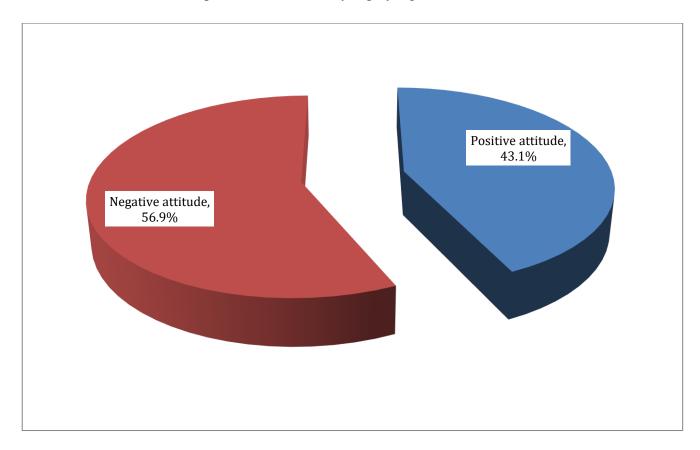


Figure (1): Distribution of the Participants according to the Total Attitude Score

الملخص العربي طب الأسرة كتخصص مستقبلى بين اطباء الامتياز بمستشفيات جامعة الزقازيق

أماني محمد عبد الله - لمياء لطفي الحاوي

الخلفية: طب الأسرة هو تخصص منفصل في العديد من البلدان ، ويهدف إلى توفير رعاية صحية مستمرة وشاملة للأفراد والأسر. هناك حاجة لأعداد كبيرة من أطباء الأسرة لنظام الرعاية الصحية الشامل من العوامل التي تؤثر على اختيار هذا التخصص عوامل شخصية ، والاهتمام ، والخبرة العملية للموضوع. الهدف: تقييم اتجاهات اطباء الامتياز نحو اختيار طب الاسره كتخصص مستقبلي ، وتحديد الارتباط بين بعض العوامل الشخصية واتجاهاتهم وتحديد أسباب عدم اختياره كتخصص مستقبلي.

المنهجية وطرق البحث: اجريت دراسة مقطعية بين المتدربين العاملين في مستشفيات جامعة الزقازيق (من يونيو 2019 إلى سبتمبر 2019). شارك جميع المتدربين (116) في الدراسة ، باستخدام استبيان شبه منظم. النتائج: أظهرت النتائج ان %8.6من اطباء الامتياز أرادوا أن يكونوا أطباءًا للعائلة ولم يكن لديهم سوى (43.1٪) موقف إيجابي تجاه اختيار طب الاسره كتخصص مستقبلي. الأسباب الأكثر شيوعًا لعدم اختيار هم كتخصص مستقبلي هي نقص المعرفة (55 ٪) ، وانخفاض الاحترام الاحترام الاجتماعي (43.2 ٪) وانخفاض المكاسب المالية (39.2 ٪). كانت هناك علاقة كبيرة بين الموقف وكل من النوع والحالة الاجتماعية و معرفتهم حول طب الاسره. واظهر التحليل متعدد المتغيرات ، ان الذكور ونقص المعرفة تعتبر عوامل خطر مستقلة كبيرة للموقف السلبي. الخلاصة: كان هناك موقف سلبي تجاه اختيار طب الاسرة كتخصص في المستقبل. كان الافتقار إلى المعرفة وانخفاض الاحترام الاجتماعي وانخفاض الكسب المالي من الأسباب الأكثر شيوعًا لعدم اختياهم طب الاسره كتخصص في المستقبل.