

SATISFACTION OF FAMILY PHYSICIANS DURING THEIR TRAINING PROGRAM, JEDDAH, SAUDI ARABIA

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ABSTRACT

Background: Family medicine is considered the cornerstone of health system. It's defined as medical specialty, which provides continuing and comprehensive health care for the individual and the family. The family physicians should be very well trained to be qualified for this purpose. Family medicine became a recognized specialty in our country since a proximately 30 years. Postgraduate family medicine training program established at KSA in 1981 in King Faisal University. Resident's opinion is very important as they are the target of the training process and will help a lot in future improvement.

Aims & Objective: To determine the level of residents' satisfaction about the training curriculum at different levels (R1 to R4) in the JPFCM and to predicts the factors that affecting their training.

Materials and Methods: This was Cross sectional analytic study of residents and postgraduates conducted at Jeddah city, in the Joint Program of Family and Community Medicine. All the residents at different level (R1 to R4) at year 2012 and 3 years post graduates from Joint Program of Family and Community Medicine. More than 3 years Post graduates family physician were excluded from the study. Data collection was done using self-administered modified validated questionnaire of Family practice competency questionnaire (FPCQ).

Results: The perception of most curriculum training items were rated as very important by the trainees. The adequacy of training was lower than trainees' expectation especially in procedures skills. Lack of health care supporting system, quality of hospital training, lack of job description, and interruption of continuity of care among other factors were most important factors affecting the training. 48% of trainees were generally satisfied about training adequacy and 62% were satisfied of being a family physician.

Conclusion: 35% of the trainees were dissatisfied about their training 89% were currently residents and 10% postgraduates. 42% of the trainees were satisfied. Satisfaction was decline during residency years but it picked up in post graduate to reach the highest during 3rd year postgraduate. This level of satisfaction could be explained by that the training provided during the residency rotations especially in non-family medicine rotations was below the expectations of the trainees. This result was cleared through the factors affecting their satisfaction about the training as we observed that Most factors affecting the training were lack of health care system supporting the specialty and the quality of the training during hospital rotations.

Key Words: Satisfaction; Family Medicine; Training; Family Practice Competency Questionnaire (FPCQ); Saudi Arabia

Introduction

Family medicine is considered the cornerstone of any health system. It had been defined as "medical specialty, which provides continuing and comprehensive health care for the individual and the family. It is the specialty in breadth, which integrates the biological, clinical and behavioral sciences. The scope of family practice encompasses all ages, sexes, each organ system and every disease entity", also it's the specialty provides a promotive, preventive, rehabilitative and cost effective health services.^[1]

It has been proved that "Health systems that have a strong orientation toward primary care achieve lower overall costs, better satisfaction of their populations, and better health".^[2] However, Family medicine became a recognized specialty in our country since a proximately 30 years. Postgraduate family medicine training program established at KSA in 1981 in King Faisal University.^[3]

The training in family medicine is unique. It based on knowledge, skills and process although family medicine shared the other specialty in the knowledge and skills but its process is different. It depends on building up a strong bond with the patients and dealing with the patient situation in the context of the family and the community. Family physician considered the port of entry for the patients to the health system minimizing the cost on the patient as well as on the health system toward a good and cost effective medical care.^[4] The family physician should be very well trained to be qualified for this purpose.

The ministry of health recognized that concept very well. Recently, they established a program which aims to provide every Saudi family an access to a family doctor. To achieve the goal of a family physician for each family we need a good qualified family physicians trained strongly to be prepared for such a mission and they should be prepared to deal with the patients from the

aspect of bio-psycho-social approach. However, the JPFCM established at 1412 H.

Candidates at JPFCM receiving a good and updated training based on a strong system which plans to graduate competent family physicians. The curriculum of family medicine training applied to all training centers in kingdom. It is divided according to the rotations and the residents should pass through all of them. Each rotation in the curriculum contain an introduction, objectives, the process of training, learning situation, skills need to be learned and references. The curriculum of family medicine passed through minimal changes for 3 times. But all were minor changes.

Two years ago the AAFP published a recommendation for development of family medicine one of the recommendation supported the evaluation of the residency program through five to 10 years to permit active experimentation and ongoing critical evaluation of competency-based education.^[5]

The residents are the people who are living in the process of training and they have the right to express their satisfaction and dissatisfaction about the training program. Their opinion is very important as they are the targets of the training and it needs to be taken in consideration which will help a lot in future improvement

From that point the idea of the research come aiming to know the residents perception and views about the training which will help a lot in the improvement.

This study aimed to assess trainees' satisfaction about the clinical components of their training and factors affecting it.

Materials and Methods

A cross-sectional analytic study was conducted in Jeddah city, in the Joint Program of Family and Community Medicine (JPFCM). It included all the family medicine residents at different level (R1 to R4) at year 2012 and 3 years post graduates from Joint Program of Family and Community Medicine. This frame was chosen to increase the number of the participants. The number of residents who met the inclusion criteria at the program accounted for 61 and the number of graduated residents was 40.

Independent variables were age, gender, marital status, number of children, university undergraduate medical

school, year of residency and sponsor while dependent variables were training in different rotations, learning environment, and future Practice.

A modified validated questionnaire "Family Practice Competency Questionnaire (FPCQ)" was utilized for data collection. It was designed by Sebiany^[6] in King Faisal University, Eastern region, Kingdom Saudi Arabia. The questionnaire is divided into 6 parts including: demographic data, courses during the training program The courses include: (family medicine course 1, hospital rotation, community course, family medicine 2) also it include procedural skills that the family physician should be competence in doing them, factors affecting the trainee and could be barriers during the training, and finally the overall satisfaction with the training.

Five points Likerts scale were used as a measure for agreement "5" indicates the highest score, "1" indicates the lowest score. Although questionnaire was long but its relevance to the candidates training and its validity to reflect their expectancy for future improvement and better training make the decision to use it so, it was decided to be used in the study.

The questionnaires were distributed to the residents by the researcher, then they were collected in the same time at one of the half academic day's activity after arrangement with the supervisor responsible for the academic day activity. The data were collected during the month of June (1st - 13th, 2012).

A pilot study was conducted on 10 -20 more than 3 years post graduates to test the validity and reliability of the Questionnaire. It was valid and reliable. Permission was taken from the director of JPFCM to conduct the research as well as permission was taken from the participants for inclusion in the study. Confidentiality of the data was confirmed

Data entry and analysis was done using SPSS version 18.0 (the Statistical Package of the Social Sciences). Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations for quantitative variables. Quantitative variables were compared using Student t test and ANOVA. For correlation between quantitative variables Pearson correlation coefficient was used and depicted by scatter plot diagram. Statistical significance was considered at p-value <0.05.

Results

Response rate of participants was 80%. Table 1 describes the characteristics of the study group, it shows that females constituted almost two thirds of the candidates of family physicians (61.2%), and 68.8% were married with 66.2% having children. It was noted that more than half of the candidates (57.4%) were belonging to the ministry of health and one quarter (26.2%) were belonging to the National Guard. Meanwhile it was observed that the majority of the candidates (82.6%) were graduated from King Abdul Aziz University followed by 8.8% from Um_Elqura University and the rest (8.6%) were graduated from other universities. Equal number 16 (20%) from R1, R2 and R3 were enrolled in the study, and the candidates in the 3rd postgraduate year constituted only 3.8% of the study group.

Table 2 describes the perception of the study group about the degree of importance of different areas of competence in the family medicine training program part I arranged in descending order and presented in mean value out of score 5. It was evident that consultation came on top of the importance as indicated by the study group (mean \pm SD, 4.79 \pm 0.47) followed by counseling (mean \pm SD, 4.71 \pm 0.56) and at the same level of importance were the diagnosis/problem definition, internal medicine and pediatrics (mean, 4.68). On the other hand, it was realized that the least scores were recorded for rehabilitation and physical therapy (mean \pm SD, 4.16 \pm 0.97) and preceded by surgical care (mean \pm SD, 4.18 \pm 0.96) and geriatrics (mean \pm SD, 4.26 \pm 1.04).

From Table 3, it can be seen that health education was the highly perceived important area of competence in the community medicine course as indicated by the study group (mean \pm SD, 4.71 \pm 0.71) followed by control of communicable diseases (mean \pm SD, 4.67 \pm 0.63) and control of non-communicable diseases (mean \pm SD, 4.67 \pm 0.60). On the other hand, it was found that occupational medicine came as the least important area of competence in the community medicine course (mean \pm SD, 4.15 \pm 0.99) preceded by international health, environmental health and biostatistics (mean, 4.21)

Regarding the adequacy of training on the items included in the family medicine course part I, it was evident from table 4 that psychiatry was the most adequately item in the training course as indicated by the study group (mean \pm SD, 3.81 \pm 1.21) followed by obstetrics (mean \pm

SD, 3.71 \pm 1.20) and consultation skills (mean \pm SD, 3.60 \pm 1.10). On the other hand, it was realized that the least adequately training item was the rehabilitation and physical therapy (mean \pm SD, 2.62 \pm 1.19) preceded by geriatrics (mean \pm SD, 2.88 \pm 1.39) and lab medicine (mean \pm SD, 2.88 \pm 1.20).

Table-1: Characteristics of the study group (n=80)

Characteristics		No.	%
Gender	Males	31	38.8
	Females	49	61.2
Marital Status	Single	21	26.2
	Divorced	4	5.0
	Married	55	68.8
Having Children	Yes	53	66.2
	No	27	33.8
Sponsor	Ministry of Health	46	57.4
	National Guard	21	26.2
	University	8	10
	Ministry of Defense and Aviation	2	2.5
	King Faisal Specialist hospital	2	2.5
	Security Forces	1	1.2
University	King Abdul Aziz university	66	82.6
	Um_Elqura university	7	8.8
	King Saud university	4	5
	King Faisal university	1	1.2
	King Khaled university	1	1.2
	Other	1	1.2
Residency Year	R1	16	20.0
	R2	16	20.0
	R3	16	20.0
	R4	11	13.8
	1st post graduate	14	17.5
	2nd post graduate	4	5.0
	3rd post graduate	3	3.8

Table-2: Perception of the study group about the degree of importance of competence items in the family medicine course I

Area of Competence	Mean	SD
Consultation	4.79	0.47
Counseling	4.71	0.56
Diagnosis/problem definition	4.68	0.61
Internal medicine	4.68	0.7
pediatrics	4.68	0.74
Psychiatry	4.66	0.61
Disease prevention	4.65	0.78
Emergency medicine	4.65	0.6
EBM	4.64	0.72
Control of Non Communicable Diseases	4.59	0.72
Dermatology	4.57	0.86
Control of communicable diseases	4.56	0.79
Selecting diagnostic studies	4.55	0.82
Medical ethics/law	4.55	0.86
Ophthalmology	4.54	0.71
Health promotion	4.53	0.93
Obstetrics	4.53	0.76
Gynecology	4.53	0.74
ENT	4.52	0.82
Lab medicine	4.48	0.97
Orthopedics	4.32	0.82
Geriatrics	4.26	1.04
Surgical care	4.18	0.96
Rehabilitation & physical therapy	4.16	0.97

From table 5, it can be seen that control of communicable diseases was the most adequately trained item in the

community medicine course as indicated the study group (mean \pm SD, 3.26 \pm 1.18) followed by training on control of non-communicable diseases (mean \pm SD, 3.15 \pm 1.41) and health education (mean \pm SD, 3.06 \pm 1.55). On the other hand, the table demonstrates that the least item adequately trained was the environmental health (mean \pm SD, 2.33 \pm 1.51) preceded by occupational health (mean \pm SD, 2.33 \pm 1.51) and international health (mean \pm SD, 2.74 \pm 1.29).

Table-3: Perception of the study group about the degree of importance of competence items in the community medicine course

Area of Competence	Mean	SD
Health education	4.71	0.71
Control of communicable diseases	4.67	0.63
Control of NCD	4.67	0.6
Health management	4.54	0.74
Epidemiology	4.46	0.71
Research	4.38	0.96
School health	4.35	0.89
Health economics	4.27	0.89
Biostatistics	4.21	1.01
Environmental health	4.21	0.99
International health	4.21	1.03
Occupational medicine	4.15	0.99

Table-4: Perspectives of the study group about the adequacy of training on items in the family medicine course I arranged in descending order

Area of Competence	Mean	SD
Psychiatry	3.81	1.21
Obstetrics	3.74	1.08
Consultation	3.71	1.20
Internal medicine	3.60	1.10
Gynecology	3.59	1.14
ENT	3.59	1.05
Dermatology	3.50	0.98
Orthopedics	3.46	1.14
Emergency medicine	3.45	1.16
Ophthalmology	3.42	1.11
Pediatrics	3.41	1.23
Surgical care	3.34	1.23
Disease prevention	3.33	1.11
EBM	3.30	1.33
Counseling	3.30	1.16
Health promotion	3.28	1.15
Control of Non Communicable Disease	3.15	1.23
Medical ethics/law	3.08	1.41
Diagnosis/problem definition	3.04	1.14
Selecting diagnostic studies	3.01	1.14
Control of communicable disease	3.00	1.15
Lab medicine	2.88	1.20
Geriatrics	2.88	1.39
Rehabilitation & physical therapy	2.62	1.19

Table 6 describes the perception of the study group about the degree of importance of the competence items in the family medicine course part 2. It was obvious that all the displayed items were perceived as highly important with score $>$ 4.5 out of 5. EBM was the most important subject as it was ticked as being very important by all the respondents. The second ranked item was the diagnosis/problem definition (mean \pm SD,

4.97 \pm 0.18) followed by consultation (mean \pm SD, 4.94 \pm 0.36) and counselling (mean \pm SD, 4.90 \pm 0.40) in addition to control of non-communicable diseases (mean \pm SD, 4.90 \pm 0.30). On the other side, rehabilitation was the least perceived important item as indicated by the study group (mean \pm SD, 4.52 \pm 0.89).

Table-5: Perspectives of the study group about the adequacy of training on items included in the community medicine course

Area of Competence	Mean	SD
Control of communicable diseases	3.26	1.18
Control NCD	3.15	1.41
Health education	3.06	1.55
Health management	2.93	1.42
Biostatistics	2.90	1.48
Epidemiology	2.88	1.44
Health economics	2.85	1.28
School health	2.84	1.27
Research	2.75	1.62
International health	2.74	1.29
Occupational medicine	2.54	1.49
Environmental health	2.33	1.51

Table-6: Perception of the study group about the degree of importance of competence items in the family medicine course 2

Area of Competence	Mean	SD
EBM	5.00	0.00
Diagnosis/problem definition	4.97	0.18
Consultation	4.94	0.36
Counseling	4.90	0.40
Control of Non Communicable Disease	4.90	0.30
Control of Communicable Disease	4.87	0.34
Health promotion	4.84	0.45
Medical ethics	4.81	0.48
Selecting diagnostic problem	4.77	0.50
Disease prevention	4.74	0.77
Lab medicine	4.71	0.82
Rehabilitation	4.52	0.89

Table-7: Perspectives of the study group about the adequacy of training on the items in the family medicine course 2

Area of Competence	Mean	SD
Consultation	4.13	1.18
Counseling	3.74	1.37
Health promotion	3.69	1.38
EBM	3.60	1.38
Diagnosis/problem	3.53	1.20
Control Communicable Disease	3.44	1.36
Control Non communicable disease	3.30	1.61
Selecting diagnostic problem	3.03	1.66
Disease prevention	2.97	1.76
Medical ethics	2.88	1.59
Rehabilitation	2.76	1.44
Lab medicine	2.61	1.67

Regarding the adequacy of training on the items included in the family medicine course part 2 as expressed by the study group, it was evident from table 7 that the highest scores on the scale of importance was given to consultation (mean \pm SD, 4.13 \pm 1.18) followed by counselling (mean \pm SD, 3.74 \pm 1.37). On the other hand the least scores for adequacy of training were given to lab medicine (mean \pm SD, 2.61 \pm 1.67) and rehabilitation (mean \pm SD, 2.76 \pm 1.44).

Table-8: Perception of the study group about the degree of importance of procedural skill in the family medicine training course

Area of Competence	Mean	SD
BLS	4.92	0.31
ECG	4.82	0.42
Using ophthalmoscope	4.78	0.45
Suturing	4.73	0.52
ACLS	4.69	0.73
Epistaxis management	4.65	0.61
Wound dressing	4.65	0.64
Abscess I&D	4.65	0.64
Normal vaginal delivery	4.52	0.80
Pap smear	4.49	0.96
Removal of foreign body from ear/nose	4.39	0.81
Ingrown nail removal	4.33	0.83
Obstetrics	4.29	0.98
IUCD insertion	4.28	1.01
Spirometry	4.27	1.01
Local anesthesia	4.22	1.07
Ear wax removal	4.20	0.99
Urethral catheterization	4.18	1.09
NGT insertion	4.16	0.98
Paronychia	4.14	1.09
Episiotomy	4.07	1.06
Casting & splinting	3.89	1.08
Fecal impaction removal	3.86	1.21
Joint injection	3.73	1.17
FNA	3.50	1.22
Internal hemorrhoid banding	3.22	1.33

Table-9: Perspectives of the study group about the adequacy of training on the procedural skill in the family medicine training course

Area of Competence	Mean	SD
BLS	3.96	1.29
ACLS	3.72	1.47
Wound dressing	3.70	1.19
Normal vaginal delivery	3.57	1.22
Using ophthalmoscope	3.46	1.13
NGT	3.46	1.47
Suturing	3.41	1.32
ECG	3.24	1.17
Pap smear	3.16	1.36
Obstetrics	3.11	1.44
Urethral catheterization	3.11	1.30
Local anesthesia	3.09	1.41
Abscess I&D	3.09	1.28
Episiotomy	3.03	1.36
Spirometry	3.02	1.42
Epistaxis management	2.67	1.51
IUCD insertion	2.58	1.40
Ear wax removal	2.57	1.40
Removal of foreign body from ear/nose	2.50	1.36
FNA	2.38	1.21
Ingrown nail removal	2.32	1.28
Fecal impaction removal	2.32	1.25
Casting & splinting	2.30	1.32
Paronychia	2.28	1.25
Internal hemorrhoid banding	2.02	1.13
Joint injection	1.89	1.20

As regards the degree of importance of training on the selected procedural skills as indicated by the study group, it was realized from table 8 that training on basic life support (BLS) came on top of the items (mean \pm SD, 4.92 \pm 0.31) followed by ECG (mean \pm SD, 4.82 \pm 0.42), using ophthalmoscope (mean \pm SD, 4.78 \pm 0.45) and

suturing (mean \pm SD, 4.73 \pm 0.52). On the other side, it was found that least perceived important procedural skills was the internal haemorrhoid banding (mean, 3.22).

Table-10: Perspectives of the study group about the factors obstructing or hindering residency training

Factors supposed to hinder residency training	Mean	SD
Lack of health care system supporting the specialty	4.04	1.08
Quality of hospital training	4.03	0.97
Gross interruption of continuity of care	4.03	1.03
lack of job description	3.99	1.08
lack of adequate orientation	3.91	1.17
lack of continues care of patients	3.90	1.03
Negative attitude	3.86	1.27
lack of involvement in overall planning	3.85	1.17
lack of expert trainers	3.80	1.21
Assessment & examination not family practice oriented	3.80	1.13
Program sequence	3.76	1.12
Training was examination oriented	3.75	1.21
Lack of training objectives	3.74	1.16
Lack of involvement in curriculum development	3.74	1.23
Time not enough for research	3.70	1.15
Quality of community medicine	3.65	1.11
Lack of minor surgeries	3.64	1.13
Program length	3.56	1.37
Lack of up to date library	3.53	1.22
Lack of time for adequate learning	3.48	1.26
Lack of basic laboratory facilities	3.41	1.18
Irrelevant curriculum contents to family practice	3.41	1.34
Lack of financial resource	3.38	1.27
Lack of appropriate teaching strategy	3.29	1.37
Training stress	3.20	1.32
Family commitment	3.20	1.32
Inadequate time for community medicine	3.01	1.33
Inadequate time for hospital rotation	2.75	1.34
Gender	2.71	1.46

Table-11: General assessment of the training items

Items reflecting quality of the training	Mean	SD
the training was learner oriented	3.29	1.10
the training was family oriented	3.26	1.13
the training was problem based	3.20	1.06
the training prepared trainer well with competencies essential to future	3.08	1.09
the training was high quality	2.88	1.19
the training was community centered	2.88	1.00

Table-12: Overall satisfaction scores about the training course

Items reflecting quality of the training	Mean	SD
satisfaction of being family physician	3.59	1.17
overall training satisfaction	3.11	1.09
overall clinical competence	3.10	1.07
satisfaction of curative care training	3.09	1.09
training satisfaction of preventive care training	2.90	1.04
satisfaction of management/administration training	2.86	1.12
satisfaction of promotive care training	2.85	1.03
satisfaction of research training	2.78	1.14
satisfaction of rehabilitative care training	2.40	1.10

Table 9 describes perspectives of the study group about the adequacy of training on procedural skills during the family medicine course. It was found that the highest scores reflecting adequacy of training were recorded Basic Life Support (BLS) (mean \pm SD, 3.96 \pm 1.29) followed by Advanced Cardiac Life Support (ACLS)

(mean ± SD, 3.72 ± 1.47), wound dressing (mean ± SD, 3.70 ± 1.19) and normal vaginal delivery (mean ± SD, 3.57 ± 1.22). On the other side, it was remarked that the least procedural skills being trained in the family medicine course were joint injection (mean ± SD, 1.89 ± 1.20) preceded by internal haemorrhoid banding (mean ± SD, 2.02 ± 1.13) and paronychia (mean ± SD, 2.28 ± 1.25).

Table 10 describes the rating of the study group to the factors likely to hinder residency training arranged in descending order. It was remarked that the highest score of agreement was given to the lack of health care system supporting the family medicine specialty (mean ± SD, 4.04 ± 1.08) followed by the quality of hospital training (mean ± SD, 4.03 ± 0.97) and the gross interruption of continuity of care (mean ± SD, 4.03 ± 1.03), on the other hand it was found that gender was the least to be perceived as a factor hindering or obstructing the residency training (mean ± SD, 2.71 ± 1.46) preceded by the inadequacy of the time assigned for hospital rotation (mean ± SD, 2.75 ± 1.34) and inadequacy of time assigned for community medicine (mean ± SD, 3.01 ± 1.33).

General Assessment of the Training

Table 11 describes the rating of the study group for the quality of training arranged in descending order. It was evident that the highest scores were marked for the training being learner oriented (mean ± SD, 3.29 ± 1.10) followed by being family oriented (mean ±SD, 3.26 ± 1.13) and being problem based (mean ± SD, 3.20 ± 1.06). On the other side, the least scores were marked for the training as being community centered (mean ± SD, 2.88 ± 1.00).

Overall Training Satisfaction

Table 12 shows that the respondents gave the highest scores reflecting their satisfaction for being family physicians (mean ± SD, 3.59 ± 1.17) followed by their overall satisfaction (mean ± SD, 3.11 ± 1.09) and their overall clinical competence (mean ± SD, 3.10 ± 1.07). On the other side the least satisfactory item was the rehabilitative care training (mean ±S D, 2.40 ± 1.10) preceded by the research training (mean ± SD, 2.78 ± 1.14).

Figure 1 displays the correlation between the satisfaction scores and the overall assessment scores of the respondents to the training course. It shows that there is

a statistically significant positive strong correlation (r²=0.056) between the perceived satisfaction and quality of the training course p<0.05.

Table-13: Level of satisfaction about the training according to characteristics of the respondents

Characteristics		Mean	SD	P
Gender	Males	3.19	1.02	0.058
	Females	2.81	0.76	
Marital Status	Not married	2.93	0.85	0.850
	Married	2.97	0.90	
Sponsor	MOH	3.13	0.83	0.209
	National guard	2.67	0.94	
	University	2.74	0.94	
	Others	2.63	0.91	
Level of Participants	R1	3.11	0.87	0.032
	R2	2.52	0.71	
	R3	2.75	0.94	
	R4	2.80	0.90	
	1 st postgraduate	3.42	0.82	
	2 nd postgraduate	3.00	0.67	
University	3 rd postgraduate	4.00	0.22	0.589
	King Abdul Aziz university	3.36	0.47	
	Um Elqura university	2.95	0.89	
	Others	2.82	0.98	

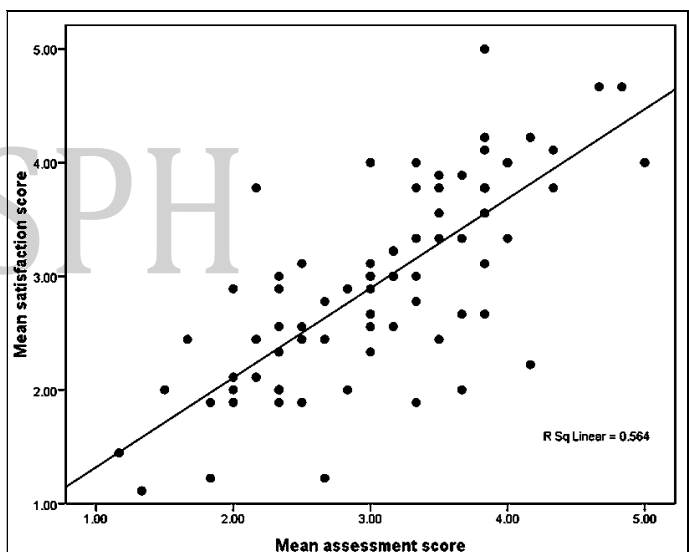


Figure-1: Scatter plot for the correlation between overall assessment scores and satisfaction about the training course (P=0.000)

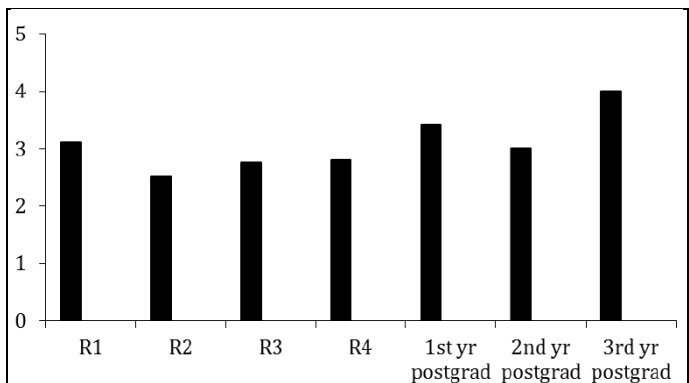


Figure-2: Satisfaction According to the Level of Participants (P=0.032)

Table 13 describes the mean scores of satisfaction of the respondents about the training according to their characteristics. It was noted that the level of satisfaction was higher among males (mean \pm SD, 3.19 \pm 1.02) than females (mean \pm SD, 2.81 \pm 0.76), however this difference is not statistically significant $p > 0.05$. Similarly, it was noted that there was no statistically significant difference between the married and unmarried respondents. Meanwhile, it was remarked that the MOH respondents had higher level of satisfaction (mean \pm SD, 3.13 \pm 0.83) if and those graduated from King Abdul Aziz university (mean \pm SD, 3.36 \pm 0.47) if compared to their counterparts, nevertheless, these differences are not statistically significant $p > 0.05$.

Regarding the level of satisfaction among the respondents according to their academic level, it was evident from figure 2 that the satisfaction scores was lower among R2 (Mean \pm SD, 2.52 \pm 0.71), while the highest scores were marked by the 3rd postgraduate candidates (mean \pm SD 4.0 \pm 0.22) and these differences in satisfaction among respondents according to their academic level is statistically significant $p < 0.05$.

Discussion

Conducting studies to evaluate postgraduate programs is not new and as mentioned before, such studies were done previously in the kingdom as well as worldwide. This study is considered the third study evaluating the residents' opinion about the training program in Saudi Arabia. It is done as a continuation of the previous studies to evaluate the training in family medicine but it was conducted in specific training center (JPFCM) to assign the areas for future improvement. The rationale for its conduction was the feeling of the researcher that there is a need for assessment of the trainees' satisfaction with their training courses. This assessment is subjective and giving only the perception of training satisfaction among the candidates. The majority of literature used this subjective assessment.^[7] Although Teacher opinion is very important in evaluating the program but their objectivity in judging is questionable as they may have an enthusiasm for their subjects.^[8] The supervisors in any training center are usually cooperative with the trainee seeking always for helping them in whatever they need and this what encourage the researcher to conduct such a research.

Previous researches in this area suggested that it's important to evaluate the curriculum according to the

residents need and believes, and there should be a periodic evaluation of training program. Residents' opinion is an important component for such an evaluation which reflects their satisfaction and their learning competence together with its relevance to their future career.

This research investigated the resident perceptions about their training during the training program although it was only at JPFCM but still it can be considered as a good example of family medicine residents because JPFCM is considered as one of the biggest program of family medicine in Saudi Arabia so, research at this place can reflects the degree of satisfaction about the training and what is its level now. Time and contacts mail or cell phone was a difficulty faced the researcher in reaching other residents in family medicine in other centers in kingdom. But this research would be a step for other family medicine programs in other areas and other specialties program to start evaluating the curricula and the training from resident's view as the residents' opinion is very important part in the process of change for the best.

Response Rate and Demographic Characteristics

The current residents at JPFCM and only 3 years previous postgraduate were invited to be enrolled in the study. This frame was chosen to balance the need to have a diverse study population but to include physicians who would have reasonably accurate memories of their residency experience.

Number of whole candidates invited to be enrolled in the research accounted for 101, out of this number 40 were postgraduates and the rest were current residents. Response rate was 80 %. About three quarters 73.8% (n = 59) were currently in the residency years and 26.2 % (n=21) were postgraduates. And this maybe because the researcher has difficulty to reach to all postgraduate because some changed their cell phone contact numbers and emails and others became very busy with their work life so although they got the questionnaire they didn't fill it and send it back to the researcher. Most of the candidates were female 61.2% comparable to the findings of the study done in western region by Sebyani where the percentage for females accounted for 26.4 %. In a study conducted in turkey evaluating the attitude toward family medicine specialization showed that female preferred to choose family medicine more than male.^[10] Male response was 38.8% and this observation

could be explained by the female preferences to choose family medicine which possibly suits their social life. Also family medicine becomes a desirable specialty in kingdom among residents.

The results showed that 68% were married and 66.2 % have children. 57.4% were from Ministry of Health (MOH), 26.2 % from National Guard Hospital (NGH) and 6.2% from other sectors. MOH is considered the largest and main health care provider as it is giving a service to most of Kingdom of Saudi Arabia (KSA) populations. Most of candidates graduated from King Abdulaziz University which accounted 82.6% followed by 8.8% from Um_AlQura university and this most probably because these are the only universities in the western region although Taibah university recently opened in Al-Madinah Al-Monawarh but the first patch not yet graduated.

Perceptions of the Participants about the Degree of Importance and Training Adequacy about the Family Medicine I and Hospital Rotations

As expected the perception of physicians towards most training items was ranked as very important. Specifically, the perception of family medicine I and hospital training was very important. Consultation skills came the first important skills according to the perception of the candidates. This also was the same as previous study done in western region KSA^[6] and as stated by Fraser, if clinician is deficient in consultation competencies any other skills he might possess become almost irrelevant". The rehabilitation and physical therapy came as lowest important which was expected because both are not a very common practice in primary health care again same as previous study^[6] but it is still important because the physician in primary health care (PHC) are facing a lot of orthopedic cases (e.g. osteoarthritis, sciatica) which need physical therapy in some cases . Hospital rotations also were ranked as very important. Internal medicine came as very important although there were some objection regarding the duration in some questionnaire's comments that six months is very long. Pediatrics got the same score and this probably because a lot of pediatric cases seen in primary health care. Obstetrics and gynecology follow them but also it still very important and maybe it got this score because male in primary health care doesn't face a lot of female cases in most primary health care settings. Study in western region showed similar result apart from that pediatric came before internal medicine.^[6] Geriatrics and surgical care

score low although primary health care physicians deal with a lot of geriatrics and their co-morbidities which some time become very complex and need special training. In general, complicated cases usually referred to the hospital so, they do not face them. The same with surgical cases which usually referred to hospital due to lack of facilities for surgical care especially in MOH primary health care centers which represent the largest population.

Regarding the adequacy of training, although consultation skills came as the first important item in family medicine I training, the degree of its training came the third adequately trained, which mean that the candidates perceived they didn't receive an adequate training in this area. There is a consultation skills course running yearly and mainly residents in fourth years attending it. There is a mandatory mini-consultation skills course during introductory course in first residency year so, maybe the candidates still need more training in this area. Regarding hospital rotations Psychiatry was the first in adequacy of training followed by obstetrics. Internal medicine was the fourth adequately trained. Geriatrics and rehabilitation and physical therapy were the least in training adequacy again which is going with its degree of importance according to the candidates perception and this also comparable to Sebiany study.^[6] In general, training adequacy were lower than expected which come in accordance with a previous study conducted in western region and showed that all candidates perceived the degree of training as very important but the adequacy of training as less than expected.^[6] In turkey 55% of the participants felt that training in teaching hospitals was not sufficient, and the majority desired training in family practice settings.^[9] A study in USA 2008 was designed to evaluate the satisfaction of Family Medicine Residency Educational Characteristics and Career Satisfaction in Recent Graduates which reflected rigorous training that included breadth of experiences with patients and illness, and care for complex hospitalized patients.^[10] Another survey in rural family medicine showed that 20% to 40% respondents reported training inadequacy in ophthalmology, dermatology, sport medicine, behavioral medicine and practice management.^[11] Other similar studies in USA by Mayo et al in the medical college of Virginia and by Geyman et al in the university of Washington showed that the great majority of candidates felt they are prepared very well and few of them over prepared in some areas. But under preparation was reported in general surgery practice

management, obstetrics, orthopaedics, psychiatry, rehabilitation, and some aspects of community medicine.^[12,13]

Regarding the perception of training in community rotation all items showed a high degree of importance. Health promotion came as the first which means it's the most important part they feel they want to learn during this course, it was followed by control of communicable disease and then control of non-communicable disease. Occupational medicine came in the last importance although Jeddah city is considered as a highly industrialized city and there are a lot of industries and companies which raise the need for occupational medicine.

The perception of candidates regarding the adequacy of training in community medicine course ranked the Research, Occupational medicine as the least adequately training courses. Environmental health, Control of communicable disease and non-communicable disease received the best training followed by health education. In general the perception of importance of community medicine was high but the adequacy of training was not as expected from trainees and this result was similar to previous studies in eastern region.^[6] So, this mean there is a need to evaluate community course. Another Study showed that 74% believe it would be beneficial if the community course is organized by both family physician and community physician rather than community physician alone.^[14] Regarding family medicine course II the perception of EBM came on the top of the important courses. Followed by diagnosis and problem solving then consultation skills and counselling. Lab medicine and rehabilitation got the lowest score. We observed the perception of trainee became more practical regarding what they need during their future work as they are getting more in the practice of family medicine during the fourth year residency and in the postgraduates years. Although EBM was rated as the most important item, nevertheless, it was the fourth in the training adequacy scores and this might be attributed to the lack of training that they expected. Consultation skills were the most adequately trained item followed by counseling and this maybe because the trainees attending a course of consultation skills which help them to improve their skills. Rehabilitation and lab medicine got the least training again as during family medicine and this because it is less available especially in MOH centers which represent the largest percent of the study population.

Perception of the Participants about the Degree of Importance and Training Adequacy in Procedural Skills Needed for Family Practice

Regarding procedural skills as perceived by the candidates BLS came as first important skills they need to be very competent at it. This result support the previous findings for the perception of family medicine residents in Saudi Arabia toward BLS.^[6] Followed by ECG and this maybe because these two skills are considered as lifesaving and it would be of most importance if they become very competent in them. Casting & splinting, fecal impaction removal Joint injection, FNA and Internal haemorrhoid banding were the least important procedures and possibly the trainees didn't consider it as their priority because it's rare in most primary health care centers. Regarding the adequacy of training BLS , ACLS came as most training adequate area which is going with their perception that they are most important skills need to be competent in them. On the other hand internal haemorrhoid banding got the lowest score for being trained which coincide with their degree of importance as indicated by the respondents. In general, the trainees perceived that they received less training regarding procedural skills rather than theoretical parts which also observed in previous studies.^[6] Family practice residents in McGill universities Department of family medicine in Canada 1991 express their needs for learning and performing more procedure skills.^[15] In turkey 82% of residents felt that training in basic skills was insufficient.^[9]

Factors Obstructing the Training

Other part within the concern domain of the research was identification of factors obstructing or hindering residency training, these assumed factors were displayed under 29 items. The 1st identified factor perceived as an obstacle for the residency was lack of health care system supporting the specialty. Nevertheless, recently the ministry of health is trying to apply a new strategy which depends on the family physicians through a concept of a family physician for each family. The Second factor was the quality of hospital training which need to be evaluated in order to detect where is the defect during the hospital rotation especially the hospital rotations considered as a major part of residency training program in family medicine and the candidates must receive their needs during these rotations from family medicine point of view . Previous research showed these two factors as the most obstructing factors during family medicine training program.^[6] In turkey 55% felt that the training

in teaching hospital not sufficient and they preferred the training in primary health care setting.^[9] So, the same question from previous study could be applied on our setting, how hospital rotation will help in building up a well prepared family physician although it's not proper and not helpful in achieving the objectives of family medicine?^[6] Gross interruption of continuity of care got the same score as previous factors and this interruption is against the main principle of family medicine which is the continuity of care of patients. Half day family medicine clinic per week might be a solution for these two hindering factors.^[14] Lack of job description come as a fourth factor obstructing the residents training. Lack of adequate orientation, lack of continues care of patients , negative attitude, lack of involvement in overall planning, lack of expert trainers, assessment and examination not a family practice oriented, program sequence, lack of training objectives all were a factors hardening the training to some degree. Inadequate time of community medicine, inadequate time for hospital rotations and gender came as least factors affecting the training process. So, we observed that hospital quality was affecting them but the time for hospital rotations were enough and some of the respondents wrote comments about the duration of some rotations being too long like medicine and pediatrics.

General Assessment of the Training

The general assessment of the training showed that mostly training was learner oriented and also it was family oriented which match the goal of the training but the training was not well community centered.

The trainees mostly were satisfied of being family physicians which is good but they were neutral in the overall training satisfaction clinical competencies and curative care. On the other side, they were dissatisfied about the preventive services training, management/administration training, promotive care training, research training and again rehabilitative care training. This different level of satisfaction could be explained due to different level of residents was involved in the study so, some of the participants still didn't have some rotations especially R1, R2. The study in family practice residency in USA showed also dissatisfaction regarding the management training and which embark the need for more training in decision making and management practice.^[16]

The correlation between satisfaction scores and overall

assessment scores of the respondents to the training course showed statistically significant positive strong correlation between the perceived satisfaction and quality of the training course with significant p value < 0.00.

Level of Satisfaction about the Training according to the Characteristics of the Respondents

The study showed there is a variable level of satisfaction R1 enter the study with neutral satisfaction but we observed lowest degree level of satisfaction through R2 and R3 about this maybe because the residents are doing hospital rotations so they are away from their family practice and possibly they are not getting their needs as family physician during the hospital rotations and confronting the negative attitude from the other specialties toward their specialty and doing only hospital services. The satisfaction started to pick up a little in R4 and this could be due to the stress in R4 as it is the final year and they must finish it with a lot of heavy works during it to pass the board exams. The level of satisfaction increase in first year post graduate and decline a little in second year then it reach to the peak in third year post graduates and this could be explained by that the postgraduates in the first year are happy after they finished the board exam and became more stabilized in their primary care centers and more oriented and doing their family practice with their own patients and after one year they might felt bored of the primary care but they started to see the effects on their patients and participate in the real aspects of family practice such doing preventive measures, promotive health education, teaching other residents and this become rewarding for their practice and affecting their level of satisfaction. This variable level of satisfaction was statistically significant P value was <0.032. Regarding the other demographic characteristics, the male were more satisfied than female. Married were more satisfied than unmarried and the residents from MOH were more satisfied than others. Graduates from King Abdulaziz University (KAAU) were more satisfied than others. These differences in satisfaction might be explained by that male had easier transportation than female, graduates from KAAU living in Jeddah so, they are socially more stable than others but all were statistically not significant p >0.05.

Conclusion

In conclusion, most factors affecting the training were lack of health care system supporting the specialty, the

quality of the training during hospital rotations and the lack of the resident for clear job description. It is recommended that the curriculum of the Saudi council should be reviewed to achieve the international standards, the quality of hospital rotations should be assessed to fulfil the needs of family medicine training and periodic evaluation need to be done for future improvement in quality of training of family physicians which will be reflected on their satisfaction.

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