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SATISFACTION WITH THE TRAINING PROGRAM IN FAMILY MEDICINE: A SELF REPORT OF THE RESIDENTS IN CAN THO, VIETNAM

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ABSTRACT

Background: *Family medicine is a broad specialty, requiring a diverse and appropriate training program. At Can Tho UMP, the curriculum has been regularly reviewed and updated.* ***Objectives:*** *To determine the satisfaction rate of students with the training programs and analyze some related factors.* ***Materials and methods:*** *A cross-sectional description on the sample selected from 2 courses (starting in 2021 and 2022), with some modifications in list of subjects and increased time of practice, particularly at outpatient settings in the latter curriculum. The questionnaire consists of 12 items about satisfaction with the theoretical and practical teaching programs, which had high reliability (Cronbach alpha 0.967). The participants were asked to rate from 0-10 in accordance with their satisfaction levels.* ***Results:*** *72 residents participated in the study. The doctors' average age was 35.6 (27-56). 63.9% were male, and 73.6% were married. There were 60% of residents who were from preventive doctors, and 62% working in primary care. There were 70.8% and 77.8% of residents who were highly satisfied with the theoretical teaching program and lecturers, and the practice program, respectively. The overall mean score of satisfaction was 8.4 (SD 0.89). Lower satisfaction correlated several personal factors including younger age group, fewer numbers of years after graduation and/or years in working, preventive medicine undergraduate training background, not primary care provider, and the curriculum prior renewal ($p < 0.05$).* ***Conclusion:*** *the training program should be considered to meet expectations of different groups of residents and maximize the duration of practice.*

Keywords: *satisfaction, resident, postgraduate training, family medicine.*

I. INTRODUCTION

Family medicine (FM) is a specialty of continuing and comprehensive patient care that requires a wide range of care according to public health needs. Therefore, the training program needs to be updated regularly accordingly. At Can Tho University of Medicine and Pharmacy, this curriculum has been periodically reviewed every two years and renewed on average every 3-5 years [1]. With the goal of strengthening clinical practice, the curriculum in 2022 has recently been increased in practice duration, in general and at clinics.

Research has been carried out in many countries to improve the quality of training that consist of curricula, structure of modules such as content, duration, theoretical and clinical teaching methods, learner evaluation, and so on. In one study in India in 2018, the residents' perceptions of FM scores were lower than those of practicing physicians (27± 3.6, and 28.4 ± 3.1, P < 0.05). Many residents (55.5%) felt less recognized as a family doctor (FD) as a specialist, among them 39.1% indicated that the concept of "Jack of all trades and Master of none" bothered them much [2]. Also in Saudi Arabia, a study conducted in 2014 found that most residents rated the components of the training program as very important.

However, the content was not enough compared to learners' expectations, especially procedure skills. Factors affecting important training included a lack of supportive health systems, the quality of training in hospitals, a lack of job descriptions, and disruptions of ongoing care. Overall, 48% of residents were satisfied with the completion of the learning content and 62% were satisfied with becoming a FD [3].

The learners' satisfaction with the training program has been related to many factors. In addition to the factors of the program such as content, methods, lecturers, or evaluation, there have also been factors belonging to the individuals, the choice of major, job and professional development opportunities, ... A study in Can Tho in 2019 reported several difficulties and challenges in this specialty that were the roles and tasks of FDs and the coordination with other specialties or different levels in the health system were not very specific; the issuance of practice certificates or professional activities still faced barriers; some FDs were not assigned to work in the right fields as being trained [4].

With the desire not only to improve the quality of training, but also to understand the barriers to professional development, the research has been carried out with the following objectives: 1). Determine the satisfaction rate with the training program in family medicine among the residents in the period 2020-2024; and 2). Analyze some factors related to their satisfaction with the training program.

II. MATERIALS AND METHODS

2.1. Materials

The study population was the residents in the family medicine level one specialty training program at Can Tho University of Medicine and Pharmacy. The sample was selected from the two courses (beginning from 2021 and 2022).

- Inclusion criteria: The residents in FM level one specialty training program who had taken at least half of the two-year program, and voluntarily accepted to participate in the study.

- Exclusion criteria: None.

2.2. Methods

- The sample size: Upon a study in Iraq about the satisfaction of FDs during their training program, p was reported 36.4% [5]. The precision d was set at 11.5%. Totally the study required a sample size n =67 participants. There were 72 trainees in two courses, we selected all of them.

- Sampling: Data was collected in the period from November 2023 to July 2024.

This was a cross - sectional study using a self-administered questionnaire.

The participants' satisfaction about the training program were assessed throughout their self-rating for the training program in general and two domains including 1. Theoretical training program and faculty; and 2. Practical training program.

We assessed their satisfaction with the main aspects of the training program containing the curriculum, practice sites, teaching methods, assessment, teaching materials, faculty, and lecturer – resident interaction. The related factors to the participants' satisfaction studied were their age, gender, marital status, family, employment, years of experience, diploma, and the curriculum they followed.

Regarding the curricula and practice sites, there were some differences in practice between the training course in 2021 forward (C1) and 2022 toward (C2) (Table 1). The

faculty and lecturer – resident interaction to be evaluated were from all departments in relation with the curriculum, except those lecturers who participated teaching only in the basic science modules.

Table 1. Comparison on list of similar and different modules between the two curricula

List of similar modules		
1. Internal medicine 2.Pediatrics 3.Surgery/ Obstetrics-gynecology	4.Emergency 5.Behavioral medicines 6.Principles of family medicine	7.Infectious diseases – Tuberculosis – Dermatology 8.A selective module (Ex. Primary care practice)
List of different modules		
9. Ophthalmology – ENT – Dentistry was in curriculum C1 but not in curriculum C2; and has been replaced by Family medicine and Rehabilitation. 10. Psychology – Neurology – Geriatrics was taught at in-patient departments in curriculum C1 but has been changed to be taught at out-patient settings in curriculum C2, and renamed Family medicine and Psychology Note: Practice duration in out-patient settings was increased from 14 weeks in curriculum C1 to 24 weeks in curriculum C2		

Regarding the teaching methods, all residents got traditional lecturing, in combination with distance learning, small group discussions, and seminars. In assessment, residents took MCQ and/or essay tests for theory, and oral clinical exams and/or problem-solving case studies for practice.

- Assessment of the residents' satisfaction and data collection:

+ An anonymous self-administered questionnaire was developed and piloted by the author. The questionnaire consists of 12 questions, which the participants were asked to rate from 0 to 10 score, corresponding to the level of satisfaction from low to high.

+ Based on the participants' scores, satisfaction was divided into four groups: low satisfaction (50%-<70%); satisfaction (70%- <80%); high satisfaction (80%-<90%) and very high satisfaction (>=90%). The questionnaire had very high reliability, with Cronbach alpha 0.967.

- Statistical analysis: All statistical analyses were done using SPSS Version 22.0. Differences in variables were assessed using the Pearson $\chi 2$ test, Fisher Exact test, and/or Independent Two-Sample t-test. The minimum statistical significance level for all analyses was $p < 0.05$.

- Ethics approval: The protocol of this study was approved by the Medical Ethics Committee of Can Tho University of Medicine and Pharmacy, via the Decision No. 23. 062.GV dated on 21 December 2023. All participants were explained about the study and taken for their oral consent. Participants were not asked to fill their names in the questionnaires.

III. RESULTS

3.1. Characteristics of the research participants

A total of 72 residents participated in the study. Their mean age was 35.6 (standard deviation 6.8). Female doctors accounted for 36.1%. 73.6% of participants were married, and 62.5% of their families had medical professionals.

The average number of years after graduation was 7.9 years. Most of them were working at district or commune health centers (30.6% and 29.2%, respectively). In general,

62.5% of the participants were working as doctors in primary settings. Most of the participants had chances to see patients, from usually (59.7%) to sometimes (31.9%) while 8.3% hardly did (Table 2).

Among the participants, 59.7% of them had been trained from the undergraduate preventive medicine program. There were 77.8% of the participants in the second year. Class A1 and A2 included 22 and 16 residents (occupied 22.2% and 30.6%, respectively).

3.2. Satisfaction about the training program among the research participants

Table 2. Demographics of the research participants

Characteristics		Number (Percentage, %) n=72
Age (years old)	Mean Range SD	35.6 27 – 56 6.8
Age groups	27 – 30 31 - 35 36 - 40 41 - 45 46 - 50 > 50	20 (27.8) 24 (33.3) 07 (9.7) 13 (18.1) 06 (8.4) 02 (2.8)
Gender	Male Female	46 (63.9) 26 (36.1)
Being married	Married Single	53 (73.6) 19 (26.4)
Undergraduate diploma	General medicine Preventive medicine	29 (40.3) 43 (59.7)
Duration of graduation	Mean Range SD	7.9 3 – 25 4.2
Group of graduation duration	3 - 5 6 - 10 11 - 15 16 - 20 > 20	18 (25.0) 42 (58.3) 05 (6.9) 06 (8.3) 01 (1.4)
Employment	Commune health center District health center Provincial hospital General medical clinic Centers for Disease Control and Prevention Others: department of health Unemployed	21 (29.2) 22 (30.6) 03 (4.2) 02 (2.8) 14 (19.4) 05 (6.9) 05 (6.9)
	Primary care providing Not	45 (62.5) 27 (37.5)
Chances to see patient	Usually Sometimes Hardly	43 (59.7) 23 (31.9) 06 (8.3)

The percentage of residents who had high satisfaction in terms of the theoretical training program and faculty accounted for 70.8%. Among the 7 items, residents were

satisfied from 76.4% to 90.2%. The highest satisfaction rates were about the faculty and lecturer – resident interaction (91.6% and 90.2%, respectively). The overall mean score of satisfaction with theory and faculty was 8.4 (SD 0.89).

Table 3. The residents 'satisfaction with the training program in theory and faculty

Satisfaction	Satisfaction Score, n (%)				
	Mean (Std deviation)	Low satisfaction 5-<7	Satisfaction 7-<8	High satisfaction 8-<9	Very high satisfaction 9-10
Theoretical training program and Faculty					
1. List of modules	8,3 (0,97)	2 (2,8)	13 (18,1)	25 (34,7)	(44,4)
2. Theoretical teaching methods	8,2 (1,06)	3 (4,2)	13 (18,1)	32 (44,4)	(33,3)
3. Faculty	8,8 (0,98)	2 (2,8)	4 (5,6)	17 (23,6)	(68,0)
4. Teaching material	8,4 (1,00)	3 (4,2)	8 (11,1)	26 (36,1)	(48,6)
5. Theoretical assessment	8,3 (1,02)	2 (2,8)	14 (19,4)	26 (36,1)	(41,7)
6. Lecturer-resident interaction	8,8 (1,04)	4 (5,6)	3 (4,2)	16 (22,2)	(68,0)
7. Views from other doctors	8,3 (1,10)	5 (6,9)	6 (8,3)	31 (43,1)	30 (41,7)
General satisfaction with the theoretical training program	8.4 (0.89)	4 (5.6)	17 (23.6)	24 (33.3)	27 (37.5)
Training program in practice					
8. List of modules	8,5 (0,85)	2 (2,8)	5 (6,9)	30 (41,7)	48,6)
9. In-patient internship	8,1 (1,14)	8 (11,1)	10 (13,9)	30 (41,7)	33,3)
10. Out- patient internship	8,1 (1,05)	7 (9,7)	9 (12,5)	31 (43,1)	34,7)
11. Trainer-resident interaction	8,5 (1,00)	4 (5,6)	6 (8,3)	25 (34,8)	51,3)
12. Practice assessment	8,4 (0,98)	3 (4,2)	7 (9,7)	27 (37,5)	35 (48,6)
Satisfaction with the practical training program	8.3 (0.89)	6 (8.3)	10 (13.9)	36 (50.0)	20 (27.8)
General satisfaction	8.4 (0.85)	4 (5.6)	15 (20.8)	31 (43.1)	22 (30.6)

The percentage of residents who had high satisfaction in terms of the training program in practice accounted for 77.8%. Among the 5 items, residents were satisfied from 75.0% to 90.3%. The highest satisfaction rate was the list of practical modules (90.3%), The overall mean score of satisfaction with practice was 8.3 (SD 0.89).

3.3. The related factors to satisfaction among the research participants

Table 4. The factors related to the residents' satisfaction.

Factors/Items		Satisfaction		
		In theoretical program and faculty	In practical program	In general
		Mean scores and p value *(Independent samples t-test were used)*		
Gender	Male	8.506	8.315	8.430
	Female	8.209	8.246	8.261
	p-value	0.298	0.753	0.433

Factors/Items		Satisfaction		
		In theoretical program and faculty	In practical program	In general
Primary care	Yes	8.606	8.453	8.542
	No	8.111	8.018	8.081
	p-value	0.027	0.053	0.031
Class	A1	8.001	7.818	7.931
	A2	8.643	8.663	8.650
	p-value	0.040	0.013	0.016
Diploma	MD	8.848	8.738	8.800
	PD	8.132	7.988	8.079
	p-value	0.001	<0.001	<0.001
		Pearson's correlation coefficient and p value		
Age	Pearson's r	0.276	0.300	0.295
	p-value	0.019	0.010	0.012
Number of years after graduation	Pearson's r	0.275	0.198	0.250
	p-value	0.020	0.095	0.034
Number of years in working	Pearson's r	0.327	0.293	0.322
	p-value	0.005	0.012	0.006

The results showed that lower satisfaction correlated significantly with the following factors: younger age, fewer number of years after graduation and in working, renewed curriculum, not primary care providers, and preventive medicine doctors ($p < 0.05$) (Table 4).

IV. DISCUSSION

The research participants had a mean age of 35.6. 63.9% of them were males and 73.6% were married. Compared to a study in Saudi Arabia among 107 residents in 2014 that their average age was 29.1, 50% of them were men and 83.2% were married, the research sample had a higher mean age and prominent males [6]. It might be because the doctors there took postgraduate training earlier right after their undergraduate education rather than the residents in our context.

The average score of the residents' satisfaction was 8.4. This looked higher than the ones in several studies in Asian countries. In Korea, in 2013, the level of satisfaction of residents with the (post-graduate) family medicine training program was 7.59 points (on a scale of 10 points) [7]. In Saudi Arabia (in 2014), 48% of students were satisfied with the family medicine training program [3], and in Iraq (in 2019), this rate was 36.4% [5].

In terms of related factors, many studies have found several factors that affect the residents' satisfaction. Our study had some similar results. First, age was found a statistically significant factor with satisfaction that the older the residents, the higher their satisfaction. This can be explained by the increase in professional knowledge and experience (at an advanced age), stable working positions, and lower academic expectations compared to young people.

Secondly, a relatively different feature which has only been around for the past 5 years in Vietnam, was that the input number of FM residents has been expanded to preventive medicine doctors, instead of just one kind of general doctor, according to the Circular 21/2019/TT-BYT of the Ministry of Health. While the clinical learning duration of the preventive medicine training program is shorter which may affect their expectations and satisfaction in the FM specialty program.

Third, another peculiarity was that not all residents were providing treatment at their health institutions. In our study, 62.5% of residents were providing primary care (PC) (at either commune health centers, district hospitals, or multi-specialty clinics) and some others were doing at higher levels (at either provincial or specialty hospitals). In a retrospective study in 2019, during the period 2008-2019, the proportion of PC doctors (including commune and district health institutions) from Mekong Delta in Vietnam, following the FM training program accounted for 83.9% [4].

Fourth, our study found that doctors who were working at PC settings had higher satisfaction rates. This can be understood as the training program was designed appropriately for these kinds of doctors. This result was similar to a study in Saudi Arabia in 2014 [3]. The residents who were PC doctors accounted for 54.2%. Age and length of working in PC settings were positively related to residents' satisfaction [6].

The interaction between trainers and residents was highly evaluated in our study (8.8 points). A study in Saudi Arabia found that residents' satisfaction was related to the number of instructors. Some other relevant factors included opportunities for outpatient practice, the proportion of different patient groups discussed, and continuity of care [6]. A study in Korea in 2013 found that residents faced several different difficulties related to lecturers, including their gender, age, type of hospital, position and working time, management roles and working duration [7]. Also, residents' emotion; perceived threats of ambiguity; perceptions of intimidation, harassment, and discrimination; and diagnostic uncertainty in PC settings were some possible related factors [8], [9], [10].

Although well designed, our study was only a self-report of learner satisfaction, so more research on the effectiveness of training programs is needed to have more complete and objective interventions.

V. CONCLUSION

The residents were quite satisfied with the post-graduate FM training program, but it should be considered to meet expectations of different groups of residents and maximize the duration of practice.

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