

**A SURVEY ON RENEWAL OF FAMILY MEDICINE CURRICULUM AT
CAN THO UNIVERSITY OF MEDICINE AND PHARMACY, VIETNAM**

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ABSTRACT

Background and Objectives: *At Can Tho University of Medicine and Pharmacy (CTUMP), family medicine specialty training program started in 2003 and was first revised in 2008. Following a national policy about expanding family medicine to improve primary care, curriculum renewal should be done to meet the social demands and direction of family medicine development by the Ministry of Health. The study aimed to 1) Describe the opinions and views about the renewal of family medicine curriculum among the residents, teachers and stakeholders; 2) Determine the demand and suggestion of continuing medical education for primary care doctors. **Methods:** A descriptive, cross sectional, perspective and retrospective design combined with qualitative survey, conducted from 6/2014 to 6/2016. Sample size included 276 residents, 60 teachers and 10 stakeholders. **Results:** The average age of the residents was 44.9 and female/male ratio was 1/3.2. Most of residents and teachers satisfied about the curriculum (97.5% and 92.7%). Several subjects should be revised or changed that were Odonto-stomachtology and Community diagnosis; be added that was evidence based medicine (combined with epidemiology); be re-organized that were Family medicine principles and practice (in a longitudinal way within a whole year) and maximized clinical practice duration by re-arranging several subjects in basic sciences and basic medicine. There was a high rate (80.1%) of trainees recognizing the importance of continuing medical education. Regular continuing medical education was suggested in either live or distance workshop. **Conclusion:** There were high rates of satisfaction and positive feedback toward the renewal of family medicine postgraduate and continuing training program from the residents, teachers and stakeholders. Some suggestions should be taken into account.*

Keywords: *family medicine, post-graduate training, continuing medical education, curriculum.*

I. INTRODUCTION

In Vietnam in 2002, the Ministry of Health approved the training program for specialist level one (called Chuyen Khoa 1 or CK1 in Vietnamese) of family medicine in medical universities. For 15 years, family medicine has been trained at post-graduate level and through CK1 program as the predominant one. Since 2012, the Ministry of Health has had a plenty of strategies and activities to develop family medicine to improve primary care, including the Circular 16/2014/TT-BYT about piloting family medicine clinics (FMC) in 8 provinces/cities in 2014, and a national plan to expand FMC in 80 percent of all province/cities in Vietnam in 2016 [1], [2]. To assure that the curriculum remains responsive to emerging societal trends, health care innovations, and novel education practice, the renewal should be a dynamic process designed to enhance trainee learning [7].

At Can Tho University of Medicine and Pharmacy (CTUMP), family medicine specialty training program started in 2003 and was first revised in 2008 that has had the following features [3].

A comprehensive curriculum consists of 7-8 week rotations of internal medicine, surgery, obstetrics-gynecology, pediatrics, surgical specialties (ophthalmology, otolaryngology, maxillo-stomachology), internal medical specialties (infectious diseases, tuberculosis, dermatology), and family medicine practice.

The other subjects supports for the specialty training including basic sciences and basic medicine such as English, philosophy, informatics technology, behavior medicine, epidemiology, community diagnosis and management of common disease.

Residents are one of the key stakeholders of specialty training. CTUMP Department of Family medicine has had continuous efforts to improve learning content and activities, including annually receiving learners' feedback. However, there has not been any research about the FM CKI curriculum according to the views of learners, teachers and stakeholders. In addition, continuing medical education (CME) or currently continuing professional development (CPD) is an increasing demand from health staffs; it is so necessary to develop a CME program for family doctors [4]. Aiming to complete these two kinds of curriculum which contribute to improve capacity for family doctors, we conducted the research with the following objectives.

1) Determine the opinions and views about family medicine curriculum among the residents, teachers and stakeholders;

2) Determine the demand and suggestion of continuing medical education for primary care doctors.

II. RESEARCH METHODOLOGY

2.1. Participants: Residents and teachers participating in the CKI training program at CTUMP; leaders or representatives of Provincial Health Department.

2.2. Methodology

Research Design: This is a descriptive, cross-sectional design, combining perspective and retrospective, with qualitative survey.

Sample size and Sampling:

Cross-sectional design: **For trainees:** we determined through a calculation of estimation for a proportion (with $P = 0,9$ from a Pretest on 40 trainees conveniently selected, $d = 0,04$ and confidence level 95%). Total number of residents during the data collection period was 276 while the required number of participants was 216. So we recruited all of 276 doctors. **For trainers:** Total number of teachers was 60 from 15 concerned faculties and departments. So we selected all of them.

For qualitative survey

-Trainees: Purposing sampling that the class monitors and/or doctors working at commune health centers and being suggested by the class were selected.

-Faculty/department leaders: Heads or vice heads suggested by the head of concerned faculties/departments were selected.

- Stakeholders: the stakeholders were selected through 2 steps. First, 4 provinces among 13 ones in Mekong Delta were randomly chosen. Second, the interviewees participated according to suggestion by the director boards of provincial health departments.

Data collection: Anonymous self-administration questionnaires were delivered to all research participants; interviews and focus group discussions were conducted with an interview guide.

Data collection period: For cross-sectional survey, data from 07/2014 to 07/2016 was collected. The retrospective data was determined from 7/2011 to 7/2013. The point of time for filling the questionnaire after completing the two year training program and before the graduation exams.

III. RESULTS

3.1 Characteristics of the participants

There were 276 residents (129 ones from the 9th – 11th courses and 147 ones selected retrospectively from 6th – 8th courses); 60 CTUMP teachers and leaders; and 10 stakeholders from provincial health departments.

The average age of the residents was 44.9, and most of them ranged from 40 – 49 (63,4%). Female/male ratio was 1/3.2. Most of residents were working at commune health centers (56,9%), while the others were working at provincial or district level health centers (22,5%), district or provincial health hospital or polyclinic (9,8%).

The teachers were representative for all concerned departments with corresponding rates of teacher numbers participating in the training program. Most of teachers were from departments of Internal medicine and Surgery (16,7% each), Obstetrics – Gynecology and Pediatrics (13,3% each). The others were from 9 different faculties and departments (3,3 to 6,7% each).

Also, the stakeholders were from 3 provinces (Tien Giang, Dong Thap and Can Tho). Most of them were heads or vice-heads of belonging departments (60%) and director board (20%).

3.2. Feedback about the post-graduate family medicine training program

Training objectives and design

When interviewing 15 leaders of departments and faculties, 100% participants agreed that the general objectives and specific ones of the corresponding subjects were appropriate and presented in the same ways.

“Our department leaders understand the goals of training specialists level one in family medicine are to recognize common diseases or health problems, provide good first aids, treat in appropriate guidelines and duration, and refer at a suitable point of time”.

(Head of a clinical department)

This finding matched with the quantitative survey. When being asked about the teaching objectives, 89% teachers presented the training program bring comprehensive knowledge that helped doctors manage well the patients at primary care practice.

In comparison with their corresponding specialty, 56.4% teachers thought that the family medicine training program was a shorter version of the corresponding specialty training program while 40% others recognized it was different from the other programs.

Structure and duration of subjects

Reviewing the curriculum in general, 92.7% of teachers agreed that the subjects were relevant; and 81.8% agreed that the subject duration were appropriate.

Table 1. The relevance of structure and duration of subjects in family medicine training program according to the teachers' views

Characteristics	Relevant	Number (n=55)	Percentage (%)
Structure of subjects	Yes	51	92.7
	No	4	7.3
Order of subjects	Yes	51	92.7
	No	4	7.3
Duration of subjects	Yes	45	81.8
	No	10	18.2

According to the teachers and residents, the subjects suggested to be added in the curriculum were *psychiatry* (13.3% and 76.1%, respectively), *cancer and palliative care* (13.3% and 61.2%, respectively), *scientific research* (6.7%). In addition, the subjects suggested to be removed or reduced their time were *philosophy, computer, community diagnosis, dentistry* (6.7%). For *epidemiology*, it should be modified and renamed as evidence based medicine.

Regards to the duration of subjects which they are responsible for teaching, most of leaders and teachers agreed that they were suitable (60% and 78%, respectively). However, 57% leaders of departments recommended increasing their clinical teaching duration from 2 to 3 weeks due to its common prevalence at primary care settings. They were *infectious diseases, respiratory and tuberculosis diseases, dermatology, emergency and ENT*. Most of residents recommended increasing subject duration on sub-clinical modules (*ECG, x ray, and ultrasound*).

Also, for the subject organization or order, 86.7% agreed that it was logic. But the subject *Family medicine Principles and Practice* should be re-arranged in a longitudinal rather than in a cross way.

“As a family doctor has to provide continuing and comprehensive care to his/her patients, he/she should contact with the patients regularly in 6-12 months. Therefore, this subject should be re-arranged in a longitudinal and integrated with other subjects, with one day per week during a year”. (Head of a clinical department).

Table 2. The importance and sufficiency of provided knowledge of each subject in family medicine training program according to the residents' views

No	Subjects	Importance		Provided knowledge		
		Little	Much	Not sufficient	Sufficient	Too much
1	<i>Computer</i>	23,9	76,1	19,9	73,6	6,5
2	<i>Philosophy</i>	38,8	61,2	0,0	85,1	14,9
3	<i>English</i>	10,1	89,9	6,2	86,2	7,6
4	<i>Behavior Medicine</i>	8,7	91,3	1,1	91,3	7,6
5	<i>Epidemiology</i>	3,6	96,4	1,1	98,9	0,0
6	<i>General emergency</i>	1,4	98,6	12,3	85,1	2,5
7	<i>Internal medicine</i>	1,4	98,6	8,7	91,3	0,0
8	<i>Surgery</i>	7,6	92,4	2,5	97,5	0,0
9	<i>Obstetrics - gynecology</i>	7,6	92,4	6,2	93,8	0,0
10	<i>Pediatrics</i>	2,5	97,5	7,6	92,4	0,0

No	Subjects	Importance		Provided knowledge		
		Little	Much	Not sufficient	Sufficient	Too much
11	<i>Infectious diseases</i>	2,5	97,5	7,6	92,4	0,0
12	<i>Tuberculosis</i>	1,1	98,9	5,1	94,9	0,0
13	<i>Dermatology</i>	7,6	92,4	6,2	93,8	0,0
14	<i>Ophthalmology</i>	8,7	91,3	6,2	93,8	0,0
15	<i>Otolaryngology</i>	8,7	91,3	6,2	93,8	0,0
16	<i>Odonto-stomachtology</i>	22,1	77,9	5,1	94,9	0,0
17	<i>Community diagnosis</i>	10,1	89,9	2,5	96,4	1,1
18	<i>Common disease control</i>	2,5	97,5	2,5	96,4	1,1
19	<i>Family medicine Principles and Practice</i>	2,5	97,5	5,1	94,9	0,0

Overall satisfaction of residents about the training program:

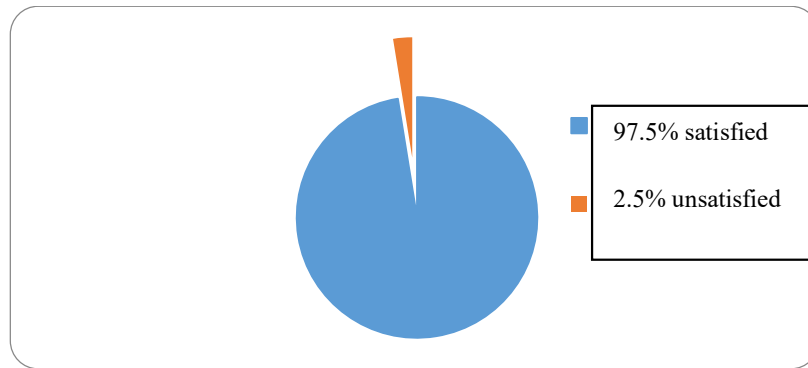


Figure 2. Overall satisfaction about the family medicine training program of residents

3.3. The family medicine continuing medical education program

The demand of establishing a regular family medicine continuing medical educational program at Can Tho University of Medicine and Pharmacy

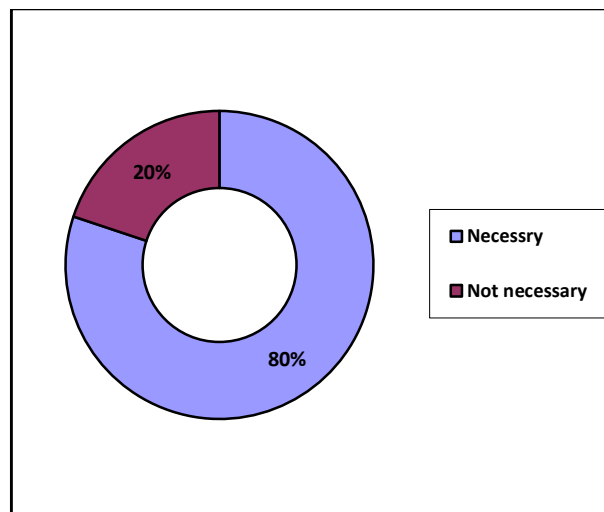


Figure 2. The demand of a regular family medicine CME program at CTUMP from the family doctors

The perception and requests about a continuing medical educational program

Table 3. The perception and requests about the family medicine CME training programs from the family doctors

Characteristics		Number (n=276)	Percentage (%)
Requested CME topics	Updates about diagnosis and treatment of common diseases	n = 221 128	58,0
	Non-communicable disease management	141	63,8
	Sub-clinical tests: ECG, X ray	55	24,9
	Visits to family medicine clinics	53	24,0
	Electronic health records	49	22,2
	Scientific research	22	9,9
	Hospital management	18	8,1
Organization format	Live workshop at CTUMP	n = 221 145	65,6
	Online or distance training	43	19,4
	Online or distance training combined with live workshops	33	15,0
Frequency	1-2 time(s)/year	n = 221 145	65,6
	3-4 time(s)/year	43	19,4
	1-2 time(s)/year combined with 2-4 time(s)/year of online or distance training	33	15,0

In addition to CME training to enhance professional capacity, the participants recommended to establish the family medicine association to have regular meetings and other activities for family doctors in Mekong Delta.

3.4. The suggested and renewed curriculum for family medicine residents and CME training

The proposed curriculum for family medicine postgraduate training:

Basic sciences	Specialties
<i>Computer</i>	<i>Internal medicine*</i>
<i>Philosophy</i>	<i>Surgery*</i>
<i>English</i>	<i>Obstetrics - gynecology*</i>
Basic medicine	<i>Pediatrics*</i>
<i>Behavior medicine</i>	<i>Infectious disease – tuberculosis – dermatology – psychology*</i>
<i>Evidence based medicine</i>	<i>Ophthalmology – Otolaryngology - Oncology*</i>
<i>General emergency*</i>	<i>Common disease control</i>
	<i>Family medicine principles and practice*</i>

Note: Subject has * meant that included clinical practice

The proposed organization of subjects:

- Basic sciences and Basic medicine: be tentatively taught in parallel to maximize clinical practice of the specialty subjects at the same time (morning sessions would be for clinical practice while the afternoons for theory learning).
- The specialties: would be good with current organization that theory and clinical practice

were taught in the same period of 7-8 weeks followed by an exam. However, the subject *Family medicine principles and practice* should be *longitudinally* taught one day per week during an entire year.

The proposed curriculum for family medicine CME training:

Updates about common non-communicable disease diagnosis and treatment
Research methodology
Electronic health records
Family medicine clinic management

The proposed organization of family medicine CME training:

Organize 1-2 time(s) per year, with 1 or 2 day(s) per time.
Live workshop at the university, combined with online or advance CME learning.

IV. DISCUSSION

The curriculum for training specialist level one in family medicine aims to train qualified family doctors with the 6 groups of capacity 1/. Professionally medical practice; 2/. Apply principles of family medicine in medical practice; 3/. Provide health care with family medicine orientation; 4/. Communication – Counseling; 5/. Leadership and management and 6/. Community oriented health care. In general, the residents were much satisfied with the program (occupied 97.5%). Aiming to complete the curriculum, the residents suggested some changes to improve knowledge and skills to manage common diseases. This was appropriate to acquire a comprehensive health care as expected by patients and health system [5], [6]. In addition, continuing care, as the most important principle of family medicine, should be taught in a more suitable frequency that help doctors to contact patients regularly and establish a good relationship within a whole year.

These views of teachers and residents were relevant to the ones of many researches in other countries. In Turkey, FM residents focused the importance of internal medicine, pediatrics; and suggested to add more subjects such as dermatology, ENT and orthopedics [61.8%] [8]. Although many residents thought they were sufficient periods to take rotations in obstetrics – gynecology, surgery and psychiatry (8, 6 and 4 months, respectively), many others suggested they should be reduced. One of the most unsatisfied things was that the residents did not have any chances to practice at family medicine clinics or out-patient departments. They complained that the principles of family medicine could not be taught only in in-patient department. 50% of residents felt not satisfied about this.

The postgraduate training at the university provided opportunities to modify the standard program according to learning needs. In the study of Duane et al, the areas for which the residents needed more support were office procedure, practice management, children's skin conditions, sports medicine and emergency medicine [9]. Also, the European Union of General Practitioners consensus documents -94 stated that a minimum of 50% of clinical training time should be spent in a general practice environment [10].

Furthermore, continuing professional development or continuing medical education was one of the tasks and responsibilities of doctors and particularly family doctors. The suggested training program matched with the policy of Ministry of Health

that was at least 48 hours/2 consecutive years, through live workshops, or distance training [4]. The topics should be focused on primary care settings that improved capacity in management of common communicable and non-communicable diseases, analyzing lab-tests and imaging diagnostic tests. The other useful skills such as scientific research, hospital and FM clinic management, etc. should also be trained for family doctors.

V. CONCLUSIONS

There were 276 residents, 60 teachers and 10 stakeholders participating in the research. The average age of the residents was 44.9 and female/male ratio was 1/3.2.

Most of residents and teachers satisfied about the curriculum (97.5% and 92.7%). Several subjects should be revised or changed that were *Odonto-stomachtology and Community diagnosis*; be added that was *evidence based medicine (combined with epidemiology)*; be re-organized that were *Family medicine principles and practice* (in a longitudinal way within a whole year) and maximized clinical practice duration by re-arranging several subjects in basic sciences and basic medicine.

Residents were one of the stakeholders of specialty training. This study gave us the chance to determine the needs of residents that had not been taken into account sufficiently before. The content of the program and their length should be revised according to the needs of residents, teachers and projection of the country's demand. Further studies will be needed to assess the program after the implementation of a core curriculum.

REFERENCES

1. The Ministry of Health (2014). Circular 16/2014/TT-BYT dated on 22/5/2014 signed by the Minister about Guidance for piloting family doctors and family medicine clinics.
2. The Ministry of Health (2016). Decision No 1568/QĐ-BYT dated on 27/4/2016 by the Minister about Plans for expanding and developing family medicine models in Vietnam stage 2016-2020.
3. Pham Hung Luc, Thai Thi Ngoc Thuy (2011), Training family doctors at Can Tho University of Medicine and Pharmacy, CTUMP Scientific research journal, Volume 2, Page 209-212.
4. Ministry of Health (2013). Circular No 22/2013/TT-BYT dated on 19/8/2013 by the Minister about the Guidance for continuing medical education for health staffs.
5. Family medicine Training Center, Ho Chi Minh City University of Medicine and Pharmacy, Family medicine, volume 1, second version, Medical Publishing House.
6. Nguyen Chi Hieu, Thai Thi Ngoc Thuy (2013), Research on family medicine based health care providing according to the views of patients at commune health centers in Ninh Kieu District, Can Tho City, 2012, CTUMP Scientific research journal, Volume 7, Page 223-228.
7. Peter McLeod & Yvonne Steinert (2014). Twelve tips for curriculum renewal. 1-7 early online. Medical Teacher
8. Uzuner et al (2010), Residents' view about family medicine education in Turkey, BMJ Medical Education, 10:29.
9. Duanne M, Dovey SM, Klein LS, Gren LA, Follow up on the family practice residents' perspectives on length and content of training. J Am Board Fam Prac 2004, 17:377-83
10. Allen J, Gray B, Crebolder H, Heyman J, Svab I, Ram P: The European Definition of General Practice/ Family Medicine. Wonca Europe 2002 (revised 2005).
11. Ee-Ming Khoo, Kidd MR (2012): Primary health care and general practice - A

- comparison between Australia and Malaysia, *Asia Pac J Public Health*, 14(2):59-63.
12. Freeman GK, Olesen F, Hjortdahl P (2003), "Continuity of care: an essential element of modern general practice?", *Fam Pract*, 20(6), 623-7.
 13. Gazewood JD, Vanderhoff B, Ackerman R, Cefalu C: Geriatrics in family medicine residency education: an unmet challenge. *Fam med* 2003, 35(1): 30-34
 14. Starfield B. (2005), Quality management in primary care – A European approach. http://www.equip.ch/files/8/starfield_berlin_jan05.pdf, Retrieved 12/05/2011.
 15. Taylor R.B, David A.K, Fields S.A, Phillips DM (2003), *Family Medicine Principles and Practice*, Springer-Verlag New York, USA from http://www.amazon.com/Family-Medicine-Principle-Practiceth/dp/0387954007/ref=dp_ob_title_bk#reader_0387954007, access on 5/11/2010.

(Received: 09/11/2018 - Accepted: 11/01/2019)

CLINICAL CHARACTERISTICS AND TREATMENT RESULTS OF PREMATURE RUPTURE OF MEMBRANES AT OBSTETRICS DEPARTMENT IN CAN THO CENTRAL GENERAL HOSPITAL

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ABSTRACT

Objective: *The study was designed to describe the clinical characteristics and to evaluate the treatment results of premature rupture of membranes (PROM) at the obstetric department in Can Tho Central General Hospital. Methods:* *A prospective, cross-sectional study design was used. Between August 2014 and March 2015, 166 patients with PROM were evaluated. Results:* *Of the 166 PROM cases selected, the average age of pregnant women were 28.5 ± 5.3 . Majority of patients with the full term gestational age was recorded. The average time between rupture of the membranes and hospitalization, and rupture of the membranes and termination were 154.4 and 580.1 minutes, respectively. Finally, although 61.4% of pregnant women underwent cesarean section, children had good Apgar scores (no intensive care was required) and no puerperal sepsis was found. Conclusions:* *Propagating risk factors of PROM and early treatment contribute to reduce the risk of PROM. Antibiotics should be used early and properly in treatment.*

Key words: *Premature rupture of membrane, pregnant women, preterm labour*

I. INTRODUCTION

Premature rupture of membranes is the phenomenon when the membranes ruptures prematurely an hour or more before the labour begins. In the US, there are approximately 120,000 cases of premature rupture of membranes which causes many risks for the mothers and their children [8]. For example, it can cause preterm labour, infection and increase perinatal mortality rate. Especially, if it occurs in preterm labour, the risk is likely to increase up to 4 times. During pregnancy, premature rupture of membranes accounts for 10% to 15%. Specifically, in full term labor, premature rupture of membranes accounts for 8% to 10% whereas in preterm labor, it covers 2% to 4% in single birth and 7% to 10% in twin's birth [5]. Clinical signs and premature rupture of membranes's treatment results assist the doctors in discovering and monitoring the rupture of membranes in order to