



# Perceptions of Medical Students about Family Medicine Rotation in India: A Pilot Study

Sajitha Parveen Maniyam Fallur Rahman, Venkatesan Sankarapandian, Kirubah V David, Prince Christopher

Department of Family Medicine,  
Christian Medical College, Vellore,  
Tamilnadu, India

**Address for correspondence:**  
Sajitha Parveen Maniyam Fallur  
Rahman,  
Department of Family Medicine,  
Christian Medical College, Vellore,  
Tamilnadu, India.  
sahuja100@hotmail.com

Received: June 01, 2015

Accepted: June 24, 2015

Published: July 12, 2015

## ABSTRACT

**Objectives:** To explore the perceptions of medical students about family medicine rotation and to provide feedback to all the stakeholders. **Design:** Qualitative study using focus group discussion. **Method:** The study was conducted on five first clinical year students of Christian Medical College, Vellore in December 2013 using semi-structured questionnaire. Data was analyzed by qualitative methods. **Results:** Students valued the idea of small-group learning, bio-psycho social approach, symptom based approach to common illnesses and continuity of patient care and supervision. **Conclusions:** This study emphasizes that undergraduate rotation in a family physician based ambulatory unit of a secondary care hospital can provide distinct learning experience in holistic care, understanding patients' context and longitudinal care..

**KEY WORDS:** Medical students, Family Medicine, small-group learning, bio-psycho social

## INTRODUCTION

The family physician is described by the World Organization of Family Doctors (WONCA) as the physician who provides comprehensive health care to every individual seeking care and arranges for other health services as needed.[1] The family physician according to Dr IR Mc Whinney is a generalist who has an open-ended commitment to every person seeking care that is not limited by age, gender, type of problem or a definite end point.[2]

Since 1983, family medicine training in India is primarily credited to the National Board of Examination (NBE), which is an autonomous organization functioning under the Ministry of Health and Family Welfare, Government of India.[3] The curriculum for post-graduate training in family medicine under NBE includes the management of common conditions, behavioral science, communication skills and practice management as its core objectives among other bio-medical entities.[4] Research is included as part of the training in the context of primary and secondary level health care. The teaching and training activities include case presentations, discussion on family profiles and domiciliary visits for patients seen in continuity clinics. In parallel to other post-graduate training programs under the Medical Council of India, family medicine graduates of the NBE get equipped in their area of expertise that is unique in the delivery of longitudinal care and for an appropriate link with tertiary care.

Family medicine graduates of the NBE have predominantly served in secondary care hospitals across the country or have

gone to specialize in other clinical areas. Family medicine is currently not included in the under-graduate curriculum in India. Medical students do not get the opportunity to learn family medicine principles that has been found effective in addressing 80% of common conditions.[5] In 2008, some pioneer graduates started an academic department for family medicine in Christian Medical College (CMC), Vellore. This was the beginning of the process of establishing an undergraduate rotation in family medicine. The academic department functions in one of the secondary care units of CMC which is the first medical school in India to introduce an undergraduate family medicine program.

This relatively young discipline in India is faced with many challenges – poor understanding of the concept of family medicine among the medical fraternity, too few family physicians produced who are medical educators, lack of government policy on placements for family medicine graduates and lack of established family medicine departments across the country.

One proven method to make family medicine an attractive career option for medical students is the early exposure of medical students to a family medicine curriculum at the undergraduate level.[6] The Vision 2015 document of the Medical Council of India envisages a MBBS graduate as a basic doctor who provides promotive, preventive, curative, comprehensive, continuous, palliative and holistic care.[7] This outcome is planned by integration of the principles of family medicine at the undergraduate level and early clinical exposure at the secondary care level. In India, there is a mixture of both optimism and skepticism towards this

vision among proponents and opponents of family medicine respectively. However there are no studies, to date, to assess the perceptions of the most important among all stake holders – medical students.

The objective of the study, therefore, is to describe the experience of medical students about the family medicine rotation in a secondary care unit. The outcome of this study can contribute to establishing undergraduate rotation in other parts of the country and inform policy makers about the relevance of role of family medicine in Indian health system.

### Study Population

The study population was the first clinical year students of 2010 batch of CMC, Vellore with a class population of 60. The study was proposed to the entire class after a brief description of the objectives of the study. Participation in the study was voluntary without any incentive. The students were informed of the confidentiality of the discussion and that the study will not affect the student status. Five students volunteered to participate in the study.

### Design and Study Setting

The Department of Family Medicine is based in one of the secondary care units of CMC called low cost effective care unit (LCECU). It is a community-based urban health center that provides primary and secondary level health services to a population of 200,000. The availability of manpower for ambulatory service is variable from a group of family physicians, community medicine doctors, junior doctors, post-graduate trainees, interns and 1 or 2 nursing staff. There is a basic in-house laboratory facility and built-in pharmacy. Inpatient care is available for management of acute conditions.

CMC, Vellore introduced a two week period rotation in Family Medicine since 2009. The medical students are split into two groups of 30 each to rotate in two different secondary care units for the family medicine rotation. Different clinical teaching learning methods are employed at the two units that is determined by the availability and choice of family medicine faculty. The five students who participated in the study rotated at LCECU.

Students come to the secondary care units after completing the initial rotations in Medicine, pediatrics and surgery. The objectives of the rotation were the introduction to principles of family medicine with emphasis on the bio-psycho-social approach. Students were introduced to the concept of translating the theoretical knowledge of history taking to a symptom based approach for common symptoms in the out-patient division of Family Medicine department. Small group teaching was promoted in LCECU (where the author is working) to help students to maintain a longitudinal learning experience with one preceptor during the entire rotation.

### Data Collection

A focus group discussion (FGD) lasting 80 to 90 minutes was conducted on December 2013, a year after the students' rotation in October - November 2012. FGD was conducted by one faculty who was not directly involved with the students for that particular year. The interviewer explored the learning experience of the students in a small – group and their reflections on overall experience in the secondary care unit and their suggestions for improvement (Table 2). The focus group was audio-taped and subsequently transcribed.

### Data analysis

Transcripts were read and reviewed by the interviewer and the assistant moderator independently. Emerging themes in the data were identified, discussed and finalized.

## RESULTS

The main themes identified in the data were comments on learning methodology, community based learning, individual reflections of students, learning outcomes, feedback to curriculum planners and general comments (Table 1). Generally students considered the rotation to be a good experience with significant interaction between students and faculty as well as with patients.

**Table 1. (Qualitative Themes)**

<ul style="list-style-type: none"> <li>Learning Methodology</li> </ul>	Students valued small-group teaching that helped them to understand patient-centeredness
<ul style="list-style-type: none"> <li>Community Based Learning</li> </ul>	Students described symptom based approach to common illnesses, inclusion of psycho-social factors in diagnosis and continuity of care as distinct from hospital based care
<ul style="list-style-type: none"> <li>Individual Reflections</li> </ul>	Students reflected on the illness response of the individual and the effect of illness on the family
<ul style="list-style-type: none"> <li>Learning outcomes</li> </ul>	Students identified bio-psycho-social approach, clinical reasoning, clinical skills and family based care as significant learning outcomes
<ul style="list-style-type: none"> <li>Feedback to curriculum planners</li> </ul>	Introduce family medicine as 1 <sup>st</sup> clinical rotation and more time in family medicine

All the five participants highly appreciated the small group sessions. Small group teaching helped students to develop rapport with patients and eventually to understand patient-centeredness. Immediate feedback in a small group was well taken by students and they felt that it was less intimidating. Learning bed-side skills like counting the respiratory rate in

a child and performing simple procedures like dressing of a wound or local infiltration under supervision were considered by the students as significant learning experiences. Being with one faculty during the two weeks was identified by the students as a significant longitudinal learning experience.

**Table 2.** (Focus Group Questionnaire)

- What is your experience of coming to low cost unit for family medicine rotation?
- Do you remember any negative experience from this rotation?
- What are your "feelings" about your learning experience regarding the case presentations you did with the consultants in LCECU in family medicine posting?
- After you finished Family Practice rotation, Can you explain, compared to the learning experience in LCECU, how was your experience with the other postings you had after this in tertiary care?
- Your suggestions for improvement?

"It was really good, because only 2 of us with Sir. Because of less number of students, we were only two of us posted with the consultant, so we were not scared. We were more confident. Here in family medicine, we had fewer students, so we had good rapport with patients. Those kinds of hands on experience, I did not get in major postings. There was a continuation with the same consultant teaching us. So we knew what systems we had finished and what to do next"- student

Students identified more common problems in patients in the out-patient unit of family medicine which they related as significantly different from a hospital based rotation. Within the out-patient family medicine based learning many sub-domains were found in the data. Apart from the inclusion of psycho-social factors in diagnosis, students described that clinical reasoning and acumen were highly emphasized in family medicine. They reported that they were introduced to develop a symptom based approach to common problems. Students found the diverse patient populations seen across all age groups in the secondary care set-up as a very good exposure. Symptoms encountered at an early phase of illness in the secondary care level were reported by students as more relevant to patients than the more complicated cases seen in the tertiary care setting. Students identified the opportunity for continuity of care in a community setting as an opportunity to see the same population over the period of rotation.

"The patients we saw were different from the patients we saw in main hospital. In main hospital (tertiary care referral center where most of the training takes place) we saw more advanced cases as opposed to minor problems that affect their day today life. We saw common cases that occur in the community in LCECU as compared to main hospital."-

Student

"I remember the first time when I presented the first day, I presented a five line cardiac history and went on to a socio-economic and environmental history because I did not think it was as important. I realized at the end of the discussion was that it is as important to understand the disease of the person as the adverse factors also."- Student

"When we go to tertiary care, in medicine and surgery postings, when we go and ask the patients about the problems, in the beginning itself they say, "I have liver cirrhosis or hole in my heart". From the diagnosis we start working up the patient backwards. However if we have actually had started from symptoms and we would have actually have developed a process of thinking and approach towards the case which will be different for different people. Every person may present in a different way. The way we learn is more text book oriented that closes our mind."- Student

"But in FM posting patient told us the symptoms first like 'palpitation or chest pain'- Student

"The longest time we had followed a patient is from admission to discharge in clerkship in tertiary care. Once in a while we had seen them in second time in OPD. Other than that we never had follow-up of any patients we see" - Student

Apart from the above themes, students reflected on many subtle patterns of symptom presentation in the secondary care set-up. Students identified the significance of minor problems like fever and dressing of a wound in the context of patient's life. Students described the importance of learning small procedures like dressing wounds and administering local injections in this rotation, understanding the needs of the community, the interplay of psycho-social factors in the illness response of individual patients and the effect of illness on the individual and his or her family. Students reported that the opportunity for families to come to a single doctor for continuity of care improved accessibility. Simultaneously, students felt that it makes the day interesting for family physicians to see different patients every day.

"Even a dressing for a foot ulcer, I did, even though it is a minor problem that prevents them from going to work. How important these little things make difference in the life of the patient, like simple dressing for a diabetic foot can make a difference to that patient."- Student

"It becomes more important to focus on psychological and social background that may be causing the problem for the patient that may be the root cause for the problem, some adverse domestic factor may be the cause for his non-compliance with treatment that may be more important reason why he is not cured than the advanced disease itself."- Student

"Continuity of care is more beneficial to the patients. They need not go to a pediatrician, Physician and gynecologists for different family members. From this posting we understand

how much important for the patient – the whole family can be taken care of by a single doctor. For the physician how much it is advantage every day to see different kind of patients every day. Every day is different and more interesting.” - Student

The major learning outcomes achieved as reported by students were the bio-psycho-social approach, clinical reasoning and skills, understanding of the difference between hospital based care and community based care and approach to family based care.

“It is important to understand with full precision and perfection about what is wrong in his body so that we do not miss out any serious disease that the person is going through that might need referral or that is dangerous at the patients’ perspective.” - Student

“Knowing we can manage the whole family, later it will help us not to refer to super specialty as soon as we see. Oh!.... this is not our specialty. If it is a small thing we can manage, we will manage with the ideas we got from this posting.” - Student

“It does not have to be an advanced treatment always that makes the difference in patient’s life.” - Student

The students’ recommendations to the curriculum planners were to introduce the family medicine rotation as the first clinical rotation and more time in this rotation. However they could not imagine extra rotations in their calendar year that is already packed.

## DISCUSSION

The use of qualitative method provided a broad over-view of the students’ perceptions on a community based family medicine rotation. The use of focus group discussion was instrumental in exploring the ideas behind students’ perceptions. The themes that emerged from the focus group discussion elaborated on the students’ experiences in a secondary care hospital that was identified by students as distinct from the learning in a hospital based rotation. This confirms the results of international experience in community based rotations in undergraduate medical education.[8]

A systematic review of longitudinal community and hospital placements in medical education report that community based programs are very promising for student learning in relation to disease prevention and health promotion in community settings.[9] It also reports the value of involvement of students in continuity of patient care and supervision. Our students’ feedback reflects these views on learning in a community based family medicine rotation – symptom based approach and continuity of care. Our students’ views negate the idea that family medicine could not add anything new to justify a place in undergraduate curriculum.

Small group teaching was highly emphasized by our students as a distinct learning tool in this rotation. Students articulated on the atmosphere of a small group that provided opportunity to learn bed-side skills, establish rapport with patients and eventually learn patient-centered care, to ask questions and comprehend in a non-threatening atmosphere and to work as a team with one faculty. Effective small group teaching is well reported in the literature as a widely accepted method in medical education.[10]

One of the significant outcomes of the focus group discussion was the students’ understanding of the bio-psycho-social approach as a different approach from the pure biomedical view of other clinical disciplines. Family medicine believes that human beings are part of a hierarchy of systems and illness is a consequence of disharmony within the system. [11] To help the students to appreciate this holistic approach towards every person is a skill that can be mentored, taught and assessed in a family physician run ambulatory setting. This patient centered clinical method that includes patients’ ideas, concerns and expectations is an understanding of the patients’ context and a step to involve patients’ in clinical decision making. Family medicine, for curriculum planners, is not a distinct set of diseases but a complete change in context and clinical method for students.

Students’ reflections on the diverse patient population in a family physician based clinic supports the unique practice profile of family physicians. Students’ description on symptom based approach reflects the early presentation of various clinical conditions. Students perceived that the clinical conditions spanned across all the basic broad specialties in a community setting.

Undergraduates’ approach to learning is primarily driven by examinations that largely emphasize on fact recall. The outcome of the existing medical education system is that MBBS graduates are found to have limited ability in approach to common problems, clinical logic and poor communication skills.[12] Learning medicine in a family medicine center can offer students’ opportunities distinct from a hospital based education. Students can be exposed to disease and disability as seen in the community, taught to avoid a defensive approach in patient care and manage uncertainty and be mentored to develop a problem-based approach to common symptoms. Students can participate in the longitudinal care of patients from primary care through hospital care and back to primary care.

The foremost challenge in providing under-graduate students with the above opportunities is the lack of teachers of family medicine. Teaching basic skills in history and physical examination and communication skills among other objectives to medical students will need an initial training for future family medicine teachers.

The study reports the perceptions of 5 medical students from one medical college in India that may not be truly

representative of all medical students in India. However, similar studies on undergraduate training in ambulatory rotations in a secondary level hospital are scarce in India. Further studies with larger representative sample are needed to compare the outcome of this study. Successive classes of medical students shall be studied.

The findings of our study on students' perceptions of a family medicine rotation are well supported in international literature. Students feedback is clear that this approach is unique and distinct from what is included in the current undergraduate medical curriculum in India. Students recognized the capability of family physician to provide first contact, holistic and longitudinal care at the primary and secondary level setting. In the context of improving the existing primary and secondary care services in the country, exposure to family physician based services can introduce the concept of whole-person continuous care to our medical students.

## ACKNOWLEDGEMENTS

We gratefully acknowledge Dr. Farion R Williams MD, Associate Dean for Graduate Medical Education, University of Illinois College of Medicine at Rockford and Dr Wendy Biggs, Program Director, University of Kansas Medical Center, Family Medicine Residency for their support and feedback in the preparation of the manuscript.

## REFERENCES

1. <http://www.globalfamilydoctor.com/AboutWonca/brief.aspx> (Last accessed on March 12, 2015)
2. McWhinney IR. Textbook of Family Medicine. 3rd ed. Oxford University Press; 2009 p 13-4
3. <http://www.afpionline.com/documents/afpimembershipguide.pdf> pg 1 (Last accessed on March 12, 2015)
4. [http://www.natboard.edu.in/notice\\_for\\_dnb\\_candidates/Curriculum\\_for\\_DNB\\_Family\\_Medicine\\_\\_\\_New\\_Rules\\_UPDATE.pdf](http://www.natboard.edu.in/notice_for_dnb_candidates/Curriculum_for_DNB_Family_Medicine___New_Rules_UPDATE.pdf) (Last accessed on April 7, 2015)
5. Hennen B. Is Family Medicine a Specialty? NO. Can Fam Physician 2007; 53(2): 221-3
6. Mutha S, Takayama JI, O'Neil EH. Insights into medical students' career choices based on third and fourth year students' focus group discussions. Acad Med. 1997; 72(7):635-40
7. [http://www.mciindia.org/tools/announcement/MCI\\_booklet.pdf](http://www.mciindia.org/tools/announcement/MCI_booklet.pdf) (Last accessed on March 12, 2015)
8. Iliffe S. All that is solid melts into air – the implications of community based undergraduate medical education. Brit Jour Gen Prac 1992; 42 (362): 390-3
9. Thistlethwaite JE, Bartle E, Ling Chong AA, Louise Dick M, King D, Mahoney S, Papinczak T, Tucker G. A Review of Longitudinal Community and Hospital Placements in Medical Education: BMEE Guide. Med Teach 2013; 35: e1340-65
10. Steinert Y. Student Perceptions of effective Small Group Teaching. Med Edu 2004; 38: 286-93
11. Mash B & De Villiers M. Community-based training in Family Medicine – A Different Paradigm. Med Edu 1999; 33: 725-9
12. Sood R & Adkoli BV (Eds). Medical Education in India – Problems and Prospects. Ind Acad Clin Med 2000; 1(3): 210-2

© SAGEYA. This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>) which permits unrestricted, noncommercial use, distribution and reproduction in any medium, provided the work is properly cited.  
Source of Support: Nil, Conflict of Interest: None declared