

## Research Article

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# Training undergraduates in general practices: students' perceptions

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## Abstract

**Background:** Training undergraduates in general practices has become more and more important worldwide due to changes in the delivery of health care. Some of the Sri Lankan medical schools have introduced community based training for undergraduates. There are distinct educational advantages in training medical students in general practices. This research was designed and carried out to explore learning experience of students in these centers.

**Method:** This descriptive cross-sectional study was conducted after the completion of the final assessment in family medicine by the 4<sup>th</sup> year students. A self administered questionnaire was used to gather data and they were also requested to provide their free comments about the training programme.

**Results:** Total of 176 students were given the questionnaire with the response rate of 97.1%. Students learnt functions and roles of the family physicians, basic skills and concepts and documentation satisfactorily but the acquisition of procedural skills were not satisfactory. Distance, travelling time, and transportation were the key problems experienced by the students. They expected more visits to general practices to expose themselves to family medicine and acquire more knowledge and skills.

**Conclusions:** Students were able to achieve most of the objectives of the training programme even though the exposure was limited to 3 sessions. More training sessions will provide them better opportunities to enhance their knowledge and skills. Effort should be made to find general practices close to the medical school to avoid unnecessary hassle to students. Overall this exposure was a satisfying learning experience for students.

## Introduction

Community settings where 95% of doctor – patient encounters take place<sup>1</sup> have become increasingly important for the delivery of medical undergraduate education in the past few decades.<sup>2</sup> This increased demand on ambulatory care clinics in medical education has been met with introduction of a variety of community, general practice and ambulatory care based courses worldwide.<sup>3-5</sup> Changing patterns of health care delivery with reduced numbers of hospital inpatients,<sup>6,7</sup> shorter stays in hospitals, recognition that patients in the teaching hospitals are not representative of the general population<sup>8</sup> and an emphasis on the community management of chronic disease<sup>9</sup> have further strengthen the importance of undergraduate training in general practices.

Students gain specific educational advantages in community based teaching such as learning about common conditions, seeing conditions at an early stage of presentation, gaining insight into the psychosocial context of health and

illness, gaining an awareness of the patient as a person and developing communication and negotiation skills.<sup>10</sup> In addition students could learn follow up of chronic patients,<sup>11</sup> observe the natural and treated progression of disease through continuity of care,<sup>12</sup> practice health promotion and disease prevention strategies<sup>13</sup> and gain awareness of patient autonomy.<sup>14</sup>

In a general practice, teaching is highly personalized and it is an environment where the importance of social, economic, psychological and cultural influences on a patient's illness and the family responses can be experienced first hand.<sup>15</sup>

Undergraduate medical curriculum in Sri Lanka has been dominated by training in secondary and tertiary care hospitals while there is a limited exposure to family medicine in some of the medical schools. Faculty of Medicine, University of Kelaniya in Sri Lanka conducts a 1 month training programme for students during their 4<sup>th</sup> year. Apart from training at the university family practice centre, students have 2 training

sessions at the out patient department (OPD) of the nearby teaching hospital and 3 training sessions in general practices in the community for 3 days. There are 20 general practice training centers affiliated to the university and general practitioners (GPs) in these practices have attended teacher training workshops and are appointed as visiting lecturers of the university every year. They are informed about scheduled visits of students well in advance. This allows them to inform the university if they are not available on particular days, which will allow medical faculty to make alternate arrangements. Two to three students are allocated to a general practice at a time and distance to these teaching practices vary from 1 to 40 Km. Students are not provided with transport facilities and are expected to meet expenses themselves.

Students are given a study guide at the beginning of the clerkship which clearly spells out objectives and learning outcomes of their training in the university family practice, OPD in the hospital and general practices. In general practices they are expected to learn functions and roles of a family physician, basic concepts in family medicine and conditions encountered in a primary care setting. They are also expected to achieve skills necessary to manage patients in an ambulatory care setting such as history taking, clinical examination and negotiation. Knowledge in the documentation and practice organization are also objectives students should achieve. GP teachers are also made aware of the learning objectives at the beginning of the academic year and whenever a group of students start visiting their practices.

This study explores students' perceptions about their experience of training sessions in general practices during the family medicine clinical attachment. Research on the community based training of undergraduates is scarce not only in Sri Lanka but in the South Asian region as well. Therefore the outcome of this study may help medical schools and medical educationists to plan training programmes and GP trainers to train students in a more beneficial way.

**Methods**

This descriptive cross-sectional study was conducted in 2012 among 4th year students after completion of the final assessment in family medicine at the end of the fourth year. The last component of the examination was objective structured clinical examination (OSCE) and students were requested to respond to a self administered questionnaire immediately after the completion of this component of the examination. The questionnaire included questions to explore the awareness of objectives, knowledge and skills acquired and problems encountered by them. They were also requested to express their views about training freely.

The questionnaire was prepared by the investigators in English the same language it was administered and opinion of language experts was obtained regarding appropriateness of words and to prevent ambiguity in meaning.

Students were explained that it was completely voluntary and anonymous and written consent was obtained. They were

requested to put the completed questionnaire into a sealed box. They were assured that the box would be opened only after the release of the results of the examination. This was to make sure that investigators will look at the feedback only after the release of the results and feedback will not influence their results.

**Results**

There were 176 students in the batch and 171 students completed the questionnaire (97.1%; male: 57.4%, female: 42.1%). Of all the respondents 83% students knew the objectives of the general practice attachment while 13.5% were not aware and the rest did not respond. On the other

Table 1: Acquisition of knowledge, experience, and satisfaction of the study participants (n=171)

Characteristic	Response
Function of family physicians - care	
Personalized	137 (81.5)
First contact	138 (80.7)
Continuity	137 (80.6)
Comprehensive	128 (74.9)
Preventive	124 (74.7)
Coordination	122 (73.5)
Family medicine concepts and basic skills	
Common conditions	154 (92.2)
Early stages of illness	153 (91.6)
Communication skills	149 (89.2)
Holistic approach	134 (80.2)
History taking	135 (78.9)
Chronic disorders	131 (78.4)
Health promotion	115 (69.3)
Clinical examination	107 (62.6)
Documentation	
Medical certificates	96 (57.8)
Referral letters	100 (59.5)
Investigation requests	107 (63.7)
Medical records	110 (64.7)
Prescriptions	125 (74.0)
Procedural skills	
Blood pressure measurement	115 (67.7)
Wound dressing	66 (39.5)
Intramuscular injection	59 (36.2)
Suturing	55 (34.0)
PEFR	54 (33.1)
Venepuncture	53 (32.7)
Nebulization	52 (31.3)
Soft tissue injections	46 (30.1)
Intra-articular injections	37 (23.3)
Problems experienced by students	
Distance	111 (31.4)
Transport	108 (30.5)
Time	91 (25.7)
Space in practice	44 (12.4)
Overall satisfaction and reasons	
Less stressfull	146 (85.4)
More attention from trainer	130 (84.4)
Student centered training	123 (79.9)
Protected teaching time	106 (68.8)
Protected teaching time	101 (65.6)

Data is mentioned as n (%)

## Training undergraduates in general practices

### Box 1: Free comments

Provide general practices close to the medical school

Good exposure, unforgettable experience

Provide transport facilities

Need more sessions

Provide more opportunities to talk to patients on their own, write prescriptions and practice procedural skills

hand 73.7% of the students admitted that teaching was organized around the objectives while 8.2% disagreed and 16.2% could not remember.

### Discussion

Evaluation of courses and curricula by students describes their perceptions about learning experiences and gives useful insights into the value they attach to training programmes.<sup>16</sup> Such evaluations are extremely important in assessing success or failure of training programmes. Student feedback helps in designing, developing and strengthening training programmes and guiding and monitoring course changes.<sup>17</sup> Evaluation of training programs will improve the quality of teaching and learning and beneficial to students, faculties and institutions alike.<sup>18</sup>

This study was conducted after students completed their final examination in family medicine to minimise bias in their views due to the fact that they would have to face an examination conducted by the investigators. Their frank views were further encouraged and facilitated by assuring them that it was completely anonymous and the sealed box into which they put the completed questionnaires would be opened only after the release of the results. On the other hand investigators did not want to conduct this study after the release of results since their performance at the examination could influence their feedback.

It is encouraging that the students (83%) had a clear idea about the learning outcomes of the attachment. If students learn without having an understanding of the objectives they will not be able to engage in focused learning to acquire desired knowledge and skills. Study guide which students receive on the first day spells out the objectives, learning outcomes and details of the programme. This study shows the effectiveness in providing a study guide for students.

Majority of the students (74%) were of the opinion that teaching was centered around the objectives. This is an indication that training they received was uniform in most of the training centres. GP trainers have attended teacher training workshops organized by the university and they were informed of the objectives regularly and this study shows the effectiveness of these measures. It was reported that students appreciated having explicit course objectives and teaching organized around set themes.<sup>10</sup>

Majority of the students acquired knowledge on basic functions of family physicians which was one of the key objectives

of the training but acquisition rate was relatively low for comprehensive, preventive and coordination of care. Perhaps the limited exposure of three sessions would not have given them enough opportunities to learn about these concepts thoroughly. This may be the reason why functions like coordination of care and preventive care which may not be demonstrated during each and every consultation had not been learnt by about one quarter of the students.

It is an encouragement that more than 90% of the students learnt about common conditions and early stages of illnesses. Family medicine clerkship is the only opportunity for them to gain exposure to these aspects of medicine. Another specific objective which is to expose them to holistic care approach in patient management has been achieved by 80% of the students. This is rather a neglected aspect of patient care in hospital settings. Health promotion which is closely associated with preventive care was learnt by 69% of the students. This shows the consistency of the student responses since only 73% students learnt about preventive care also.

Students were unable to learn about documentation to the extent they learnt about basic functions of family doctors and concepts of family medicine. Again the reason may be the limited exposure of only 3 sessions. The lowest acquisition rate for referral letter writing and medical certificates which are not part of each and every consultation supports this presumption.

History taking and communication skills were learnt by the vast majority of the students and this is consistent with the previous studies.<sup>10</sup> Their impression on acquisition of examination skills was less. Apart from blood pressure measurement students did not acquire knowledge on other procedural skills satisfactorily. Inability to learn and practice procedural skills in ambulatory care settings has been a constant finding elsewhere in the world as well.<sup>19,20</sup> It has been shown that learning procedural skills can be best achieved in hospitals.<sup>10</sup>

Distance to general practices, transportation and travelling time were the main problems identified by the students. They emphasized those problems in their free comments as well. Obviously students who had to visit practices in distant places would have experienced these problems more and these problems can have negative influence on the students.<sup>3</sup> Therefore, more effort should be made to find general practices with a close proximity to the medical school to minimize these problems.

Overall satisfaction of the training was very high. Students appreciated learning in a less stressful atmosphere and the attention received from GP trainers which is probably due to less student trainer ratio. Personal attention and supervision had been described as distinct advantages in training in general practices.<sup>4,10</sup> Trainers can watch history taking, clinical examination and communication skills of students and provide a feedback which will be striking and effective. One to one or 1:2 ratio allows them to pick up what student is good at, what student is bad at and teach exactly what should be taught to the particular student. Christopher described that

the satisfaction with the family medicine attachment was related to interest shown by the GP, variety of clinical problems encountered and the experience gained in managing common conditions.<sup>19</sup> Student centered teaching which they have appreciated is an indication of the interest of trainers. Even though it was not specifically probed as reasons for overall satisfaction, students were contended with acquisition of knowledge on common conditions.

Organizing a training programme in the community needs far more planning, coordination and attention than organizing a programme within the university or hospital. There should be proper coordination and a channel of communication between the medical school and the GP trainers in the community in order to ensure smooth training sessions for students. GP trainers should know the objectives of training sessions and scheduled visits of students in advance in order to prepare themselves and their practices for training sessions. This will prevent cancellation of training sessions, undue waste of time of students and unprepared teaching by GPs. Overall positive responses and satisfaction of students are indications of the satisfactory planning of the training programme.

Students have shown their interest and the value they have attached to the training in their responses to the questionnaire and in their free comments. This positive experience may motivate them to take up a career in family medicine<sup>3</sup> once they are graduated and that is extremely important for the balanced development of health care systems.<sup>16</sup>

#### Conclusions and recommendations

1. Even though students only had a limited exposure in these primary care settings they still acquired knowledge and skills which they cannot gain in a hospital setting.
2. Number of visits should be increased to provide students more opportunities to learn about functions and roles of family physicians and basic concepts and skills in family medicine.
3. General practices closer to the medical school should be recruited to train students, so problems faced by students will be less.

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