

PRIMARY CARE/FAMILY MEDICINE

Students' Perceptions Towards a Family Medicine Attachment Experience

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ABSTRACT Objective: To explore the students' perceptions about their experience in a family medicine (FM) preceptorship in order to provide a sound basis for offering guidance to family medicine undergraduate education.

Methods: During one full academic year at King Saud University, College of Medicine, Riyadh, Saudi Arabia, a self administered questionnaire was distributed to all students (n = 177) at the end of each 6 weeks family practice attachment course. Students were asked to rate their attachment by responding to a five-points Likert type scale questionnaire and other Yes/No questions reflecting different important points in teaching and training.

Results: The teaching quality and the ability of the General Practitioners (GPs) preceptors to relate to students are rated very highly. Despite that, the majority of students (59.3%) feel their aims were not met during the attachment. Students indicate that there should be more teaching of practical procedure skills, more time allocated for discussion and a greater student involvement in the consultation.

Conclusion: There is much to be retained in FM preceptorships that involves the caring and communication aspects of learning patient care. The study showed that practical procedure skills are desirable features of a preceptorship programme and that an emphasis on doing vs. observing is preferred by students. Some conditions designed to improve preceptorships are outlined and basic practicalities of adding a preceptorship to a practice are considered.

KEYWORDS Family medicine, preceptorship, evaluation, undergraduate, curriculum, Saudi Arabia.

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Introduction

The evaluation of teaching remains a highly controversial subject, but the current consensus of experts in the field of teaching evaluation is that student assessment of teaching ability constitutes a reliable evaluation tool (Murray, 1979; MacDonald & Bass, 1983; Stanley & Al-Shehri, 1992). Students' evaluation of courses and curriculae provided enormous inputs and benefits for programme improvement, in particular, innovative approaches, such as problem-based curriculae and community-based education (Magzoub, 1994; Dolmans, 1994). These authors found high reliability, validity and acceptability rates for student evaluation instruments. Students' perceptions about their experience in family medicine (FM) preceptorship is crucial to providing guidance to family practice tutors about what students find most interesting and useful while they are based in family practices. In response to the restructuring and downsizing of teaching hospitals, the role of family physicians in the health care system will need to undergo changes, one of which will involve looking after more acutely ill patients. How well current education and training in FM is preparing for these new anticipated responsibilities is not known but is likely to be underprepared. The lack of interest in family medicine (FM) as a career among Saudi medical students is a problem for the future development of the country's health services (Al-Faris *et al.*, 1997). Accordingly, an accurate and comprehensive data-base of the value and effectiveness of FM undergraduate and postgraduate programmes is crucial, so that appropriate decisions for further improvement can be made about the strengths and weaknesses of these experiences.

The family practice preceptorship has been studied from a variety of perspectives. It has been found to be very popular among students, to be a rewarding, stimulating and synthesis experience wherein they can apply the knowledge and skills acquired in pre-clinical training, apply the principles of clinical problem-solving, and practice high quality medical care in a non-hospital setting (Friedman *et al.*, 1979; McWhinney, 1979). Therefore, it is a unique experience for medical students. It takes them out into the community to be exposed and recognize FM as it is practiced away from hospital. The teaching experience is also unusual as it is the first, and often the only period in the undergraduate curriculum when students receive one to one teaching (Cooper, 1992). Saudi medical students showed an appreciation of the diversity and returns of learning opportunities in primary care, and they were willing to participate actively in their learning (Al-Shehri & Al-Faris, 1998). One pragmatic question that should be asked of every rotation is "what learning experiences does this rotation contribute to the student's medical education?" Traditional disciplines have long monopolized curriculum time without critical evaluation of what students learn during that period (Gjerde *et al.*, 1979).

There are two different approaches to the evaluation of preceptorship teaching. The first places emphasis on the need to state preceptorship

objectives and to base evaluation on the extent to which these objectives are seen to have been fulfilled (Smith & MacLeod, 1981). The second approach sees the preceptorship as an inherently variable and personal learning experience undertaken by students who are able to discriminate, form opinions and draw from the attachment as one of many undergraduate learning experiences. This study is part of the effort to establish a sound methodological approach to evaluating undergraduate preceptorship programmes from the student perspective. Al-Faris (2000) undertook a study to compare students' evaluation of traditional and innovative undergraduate family medicine courses in King Saud University. The students' self-assessments of their knowledge showed a significant improvement with no perceived improvement in their skills (Al-Faris, 2000). This study was initiated to explore the students' perception about their experience in a FM preceptorship in order to provide a sound basis for offering guidance to FM undergraduate education.

Methods

During the last 2 years of their studies at King Saud University, Saudi Arabia (KSU), medical students undertake six clinical rotations, including a 6 week attachment in FM. The FM course is presented six times per year for groups of about 35 students each. The objectives of this course are as follows: first, to gain an overview of Primary Health Care (PHC) speciality. Second, to help students to become sensitive communicators, educators and effective team builders in PHC centre. Third, to consolidate their already acquired knowledge and skills gained in other departments for use in PHC. Fourth, to provide an appropriate exposure to the discipline of Family Medicine which will assist students in making career decisions. The 6-week undergraduate course in FM has an established preceptorship programme which attaches students for 4 weeks to one of the 30 general practitioners (who are selected preceptors for FM undergraduate programme) at primary health care centres throughout Riyadh City. Guidelines for the attachment are outlined in a handout given to students and preceptors. As part of an on-going assessment of the course, students are asked to rate their attachment by responding to a five-item Likert scale questionnaire and other Yes/No questions reflecting different important parts of teaching and training, which is collected at the end of the attachment. The five-point scale was collapsed to three groups for the sake of analysis and data presentation: group 1 represents the categories 'strongly agree' and 'agree'; and group 2 represents the categories 'strongly disagree' and 'disagree'; while the third group represents those who are uncertain.

Students were requested to write down their learning objectives at the beginning of the course and whether these objectives were met at the end of the attachment. These expectations were addressed in the study questionnaire.

Fortunately in most instances, students' expectations match the above mentioned College stated objectives.

In addition to close-ended questions, open-ended questions were chosen to enable students to express their own feelings about the attachment. In the questionnaire students were requested and encouraged to explore positive, as well as negative, aspects of the attachment, and to consider how the attachment might be improved. All questionnaires completed by students in one full academic year (from September 1996 until June 1997) were retrieved for analysis. Five groups of students were assigned to complete their FM Course during the study period. Answers to the questionnaires were reviewed, and individual comments were noted and assembled into a draft list of answers to each question. Answer-comments, which were not precisely the same as those in the list, were added to the list and retained in data. Comment-answers to each question were then assembled in rank order of frequency.

The data were analysed using SPSS/PC statistical package. Chi-square statistical test was used for comparison between categorical variables; p value < 0.05 was considered significant.

Results

One hundred and seventy-seven questionnaires were returned, with 100% response rate. Two thirds of students (68%) are in the final year of undergraduate education and about three-quarters of them are male.

The teaching quality is rated highly. This is expressed in terms of the GP preceptor willingness to answer questions, to encourage asking questions, to involve students in the consultation and to enhance teaching with humour ($p = < 0.05$) (see Table 1). The ability of the GPs to relate to students is rated very highly in terms of the GP being friendly and welcoming, understanding student needs, relating to the students as colleagues rather than as students and being a good listener (see Table 1).

The majority of the students ($n = 105$) feel their aims were not met during the attachment. Where student aims were not met, the reasons most frequently cited are: they learned very few practical procedures (76.2%); a large number of patients attending the primary care centres (74.3%); no time for discussion (62.8%); and no involvement in the consultation (55.2%).

Interestingly, when the students were asked what were the best things, students placed emphasis on the friendly welcoming attitude of the GP and practice staff and the experience gained in managing (see Table 2). On the other hand when asked about the worst things, the response was that there was no opportunity to perform practical procedures and not enough involvement in the consultation (see Table 2).

Students' views on what could be done to improve the attachment are: there should be more teaching of practical procedure skills; there should be more

Table 1. Students' experience in primary health care centre with the GP ($n=177$)

How would you describe your experience in the primary health care centre?	A + SA %	CA %	DA + SDA %
The GP was always willing to answer my questions	82.0*	0.6	17.4
The GP set aside time for discussion	56.5	2.3	41.2
The GP encouraged me to ask questions	61.0*	3.4	35.5
The GP involved me in the consultation	71.7*	0.6	27.7
The GP enhanced teaching with humour	64.4*	7.3	28.3
The GP impressed me by being informed and knowledgeable	57.0*	5.7	37.3
The GP involved me in performing procedures	50.3	4.0	45.7
How would you describe the ability of the GP to relate to you?			
* The GP was friendly and welcoming	93.2	2.8	3.8
* The GP understood my needs as a student	76.3	2.8	20.9
* The GP related to me as a colleague rather than as a student	82.0	2.9	15.1
* The GP was willing to listen to me	87.0	2.2	10.8

A = Agree

SA = Strongly Agree

DA = Disagree

SDA = Strongly Disagree

CA = Cannot Answer

* = p value = < 0.05

time allocated for discussion; and there should be greater student involvement in the consultation (see Table 3).

Discussion

This study is based on an open-ended questionnaire and narrative type of questions which were described by Friedman (1979). Although, the analysis of open-ended questions is difficult to quantify, the data derived from it are informative and of great value. They may represent the views of students uninfluenced by preconceptions. One difficulty with the narrative form encountered by Friedman *et al.* (1979) was the relative reluctance of students to make critical comments about the attachment.

The study supports what was suggested in the literature, that students most appreciate doing rather than observing. This preference applies to consulting, performing practical procedures, being part of the practice team and so on (Morrison & Murray, 1996). In a study of general practice attachments in Scotland, conducting their own consultations was the activity most highly

Table 2. Students' perceptions about the best and worst things about their attachment ($n=177$)

What were the best things about your attachment? ($n=177$)	%
1. The friendly welcoming attitude of the GP and Practice Staff.	92.0
2. The experience I gained in managing common clinical problems	87.6
3. The insight I gained into the life of the family doctor	86.4
4. The variety of clinical problems	76.6
5. The sense of involvement and responsibility	70.6
6. The experience I gained in performing practical procedures	36.2
What were the worst things about your attachment?	
1. There was no opportunity of perform practical procedures.	72.3
2. There was not enough involvement in the consultation.	55.9
3. There was inadequate time for discussion.	54.8
4. Not being able to discuss things with other students	44.0
5. The lack of variety of cases.	43.5

Table 3. Students' suggestions to improve their attachments ($n=177$)

What could be done to improve the attachment?	%
1. There should be more teaching of practical skills	93.2
2. There should be time allocated for discussion	89.8
3. There should be greater involvement of the student	88.7
4. Students should be given an opportunity to take a patient's history before the consultation	87.6
5. Students should also be attached to other activities of primary care centre	81.9
6. The GP attachment should be later in the medical course	61.6
7. The attachment should be longer	50.3

valued by the students (Morrison & Murray, 1996). The involvement and responsibility are cited by 70% of students in the present study as being one of the best things about the attachment. Similarly, lack of involvement in the consultation is seen by 56% of students as one of the worst things about the attachment and that needs improvement. This goes with the findings of others (Murray, 1979; MacDonald & Bass, 1983; Morrison & Murray, 1996; Al-Faris, 2000). Similarly, the variety of clinical problems and the experience of managing common clinical problems liked by the KSU students are in line with the findings of others (Lindenmuth *et al.*, 1979; Cooper, 1992; Gjerde *et al.*, 1979).

While the majority of the students describe their instructors as friendly and welcoming (93%) and willing to answer questions (82%), a lesser proportion of students (57%) view them as being informed and knowledge-

able. This goes with the finding of an earlier study in the same school that found students relatively dissatisfied with the competence of the PHC tutors (Al-Faris, 2000).

In this study, students seem to like the personal characteristic of their instructors being friendly and welcoming, understanding students' needs, relating to students as colleagues rather than as students and being good listeners. McWhinney (1979) emphasized the importance of the preceptor–student relationship for a satisfactory learning experience (McWhinney, 1979). According to Cooper (1992), students emphasized the friendly welcoming attitude of the general practitioner, the friendliness of practice staff and the way in which they were involved in the practice. Teaching quality was expressed in the same sort of terms, relating to the extent the general practitioner was willing to devote time to discussion, answer questions and involve the student in the consultation. Overall the teaching quality in the Cooper study was rated very highly.

Lindenmuth *et al.* (1979), found that in a number of busy practices, student involvement in the consultation increased the number of patients seen without decreasing patient's satisfaction. A large proportion (90%) of the study subjects wanted more time allocated for discussion. This agreed with the findings of others (Cooper, 1992).

The most frequently stated negative comment (72%) was that there were no opportunities to perform practical procedures. This agreed with the findings of a study in the same school that students did not perceive improvement in their skills and called for giving students a greater role to practice skills, such as examining and interviewing patients (Al-Faris, 2000). Philips *et al.* (1982), in a review of the clinical content of a general practice preceptorship, reported that students were able to perform very few practical procedures. This may reflect a reluctance on the part of the general practitioner to involve students in performing practical procedures. One reason to withhold greater student involvement is likely to be the close physician–patient relationship. Spike and Veich (1991) have noted the extent to which the medical undergraduate curriculum fails to teach students practical skills relevant to family practice. This observation was also supported by other reports (Smith & MacLeod, 1981; Cooper, 1992).

In this study, half of the students suggested a longer attachment (i.e., more than 4 weeks), although they did not mention the optimum period. Beasley *et al.* (1985) found that a 4-week clerkship/perceptorship was too short to achieve continuity of care (16% of visits during the first 4 weeks are return visits as compared to a 35% return visit rate during the fourth to the eighth week). According to Little and Rodnick (2000), an 8-week experience in family medicine exposes students to the most common ambulatory problems while maximizing the continuity of care.

The limitations of this study are that it depends mainly on students' feedback at the end of the course which might be affected by other factors, such

as educational environment and student achievement. In addition, the qualitative and quantitative studies were analysed independently which might introduce an element of bias. One more limitation is that the data of this study was collected a considerable time ago. However, two focus group discussions (FGD) with two groups of students (10 students each) were conducted recently in March 2003 to see if the situations are still comparable to the previous time. Each FGD lasted for 1 hour during which students were interviewed about their perceptions of the attachment in relation to the description of their experience in the health centre, how they related to the GP and the best and the worst things about the whole experience. Through a trend analysis, the results revealed almost similar responses in the two studies.

Conclusions and Implementations

Evidently, students enjoyed the experience and learned from it. The implication of these ratings was that the preceptorship should retain all of the activities that lead to the positive evaluation. However, students emphatically indicated the need for more participation in practical procedure skills training. Moreover, they expressed a definite preference for doing rather than observing. The issue is what are the appropriate strategies to adopt to accommodate the students' expressed suggestions. It is probably facile to suggest to preceptors to alter their practice patterns to enable students to participate in skills training and in more active patient care involvement.

This study typifies FM preceptorships. There is much to be retained that is favoured and found useful by students. The issue of learning procedures is one that transcends the jurisdiction of FM and necessarily involves undergraduate curriculum officials deciding what procedures should be acquired by students and during which clinical rotations these acquisitions should occur. With regard to emphasizing the doing aspect of patient care, it would be constructive to work out explicit benchmarks for both students and preceptors to follow.

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