

# Usefulness of patient studies in learning family medicine at postgraduate level

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## ABSTRACT

**Background:** The Master's in Family Medicine (M Fam Med) is a postgraduate training programme in family medicine at Medunsa. M Fam Med students have to write patient studies as part of requirements to complete their degree. This research was undertaken to develop a deeper understanding of their perceptions about patient studies.

**Methods:** A descriptive qualitative method was used. A purposeful sample of eight students was selected, with a maximum variation in dimensions of interest. Data were gathered by free attitude interviews, recorded on audiotape. These were transcribed verbatim; themes were identified from the text and were coded into categories. A model was developed to demonstrate the process, and the interrelatedness of and relationships between the themes.

**Results:** The students generally perceive patient studies as a good learning tool. However, they face certain problems while doing patient studies. These problems arise from difficult student-facilitator relations and from the logistics of doing patient studies, such as a lack of orientation and difficulty in obtaining literature.

**Conclusion:** Patient studies are appropriate assignments for the M Fam Med programme at Medunsa. The problems, such as strained facilitator-student relationship and logistic problems, encountered during the writing of patient studies, should be addressed. *(SA Fam Pract 2004;46(5): 25-30)*

## Introduction

A term widely used in the literature on medical education is problem-based learning (PBL). Walton describes PBL as any learning which comprises the following distinct elements: stimulation to tackle a realistic problem, challenge to begin by applying prior knowledge and experience, constant practice of a logical, scientific approach to problems, encouragement to identify what is not yet understood and to see ignorance as a challenge to further learning, enabling the recognition that nothing is ever learned to finality, and development of a practice of exchanging information on the rela-

tive values of various sources of information.<sup>1</sup>

A closely related term is experiential learning. Bound and Pascoe describe experiential learning as a number of approaches that use the first-hand experience of the learner as a major source of learning.<sup>2</sup>

Research has shown that students value experiential learning as a learning tool, as it leads to a change in their behavior, enhances their problem-solving skills, brings about personal and professional awareness and improves patient care.<sup>3</sup> One study showed that experiential learning stimulates the students to understand the complete

process of patient care, from emergency call to discharge in a pre-hospital emergency care setting.<sup>4</sup> Experiential learning develops critical thinking and professionalism in attitude and behaviour.<sup>5</sup> Another study showed how students learned what it meant to be professional and learned about themselves in the initial stages of a course that used experiential learning as a teaching strategy. Later in the course, they learned how to separate self from the profession. At the end of the course they were able to look critically at information rather than accepting it as it stands.<sup>6</sup> Students learning through experiential learning

develop listening and interviewing skills, learn positive reforming of a patient's problems and learn how to give positive feedback to promote behavioral change.<sup>7</sup> Students learn 'effect tolerance' better when taught by PBL than when taught by traditional methods.<sup>8</sup> Usherwood et al. demonstrated that PBL is an appropriate approach of teaching general practice and that students adapt to it easily.<sup>9</sup>

It is possible that there might be no difference between the knowledge gained by the students being taught by experiential learning and those being taught by traditional methods.<sup>10</sup> In actual fact, a systemic review of all the research from 1980 to 1999 concluded that there is no evidence that PBL improves the learning outcome as a whole.<sup>11</sup> However, this review found that PBL is more stimulating and humane from a student's point of view when compared to traditional method of teaching. Students perceive PBL as engaging and useful, but also as difficult. Students acquire interpersonal communication skills and a knowledge of psychology better by means of PBL. Teachers tend to enjoy PBL. Students learning by conventional methods, however, perform better in basic science examinations.<sup>11</sup>

The Master's in Family Medicine (M Fam Med) offered at the Medical University of Southern Africa (Medunsa) is a distance-based programme leading to a postgraduate degree qualification. A student has to pass a final examination, write a research dissertation, as well as complete twelve assignments as requirements for the degree. Six of these assignments should be patient studies. Technically speaking, a patient study incorporates elements of both PBL and experiential learning. In doing a patient study, the student comes across a situation in which

he/she discovers his/her educational needs or the patient's unmet needs. He/she defines them as learning need(s) and refers to different resources to learn about them, while critically evaluating the resources. In the next step, the student applies this newly acquired knowledge to the real situation. Finally, he/she reflects upon the whole process. The student writes down this experience and the facilitator assesses it. The purpose of patient studies in M Fam Med is to provide students with the skills necessary to be lifelong self-learners.<sup>12</sup>

Different students have been observed to write patient studies at a different pace and with different levels of enthusiasm. This could be due to their different attitudes towards patient studies. These different attitudes could have stemmed from the different perceptions that students have about patient studies. For this reason, understanding students' perceptions about patient studies is important for both the teachers and the students. This study explores these perceptions.

The aim and objective of the study was to gain insight into M Fam Med students' perceptions about doing these assignments and to use this information to improve the course in the future.

### Methods

A descriptive qualitative method was used. The qualitative method is appropriate if the goal of the research is to develop concepts that help us to understand phenomena with the emphasis on the meanings, experiences and views of all the participants.<sup>13</sup>

A purposeful sample was chosen from all the students who were registered for M Fam Med at Medunsa in 2001 and who had completed at least two patient studies.<sup>14</sup> Maximum variation was sought in the sample

regarding the number of patient studies completed, the number of years of study, examination attempts, area of practice, and the facilitators of the participants. Free attitude interviews were used to collect the data. The exploratory question used in all the interviews was "What are your perceptions about patient studies as an assignment for M Fam Med?" Participants were allowed to express themselves unhindered in response to this question. They were not asked any further questions. The suitability of the exploratory question was established in a pilot project in which the same question was posed to a student. The student did not need further clarification and his answer was rich with themes. This interview was not included in the analysis. Written informed consent was obtained from all the participants before the interviews. All the interviews were conducted by the main researcher (SNJ) in English, at a location of the participant's choice, and were recorded on audiotape. The interviewer collected field notes simultaneously. Eight interviews were included in the study. Saturation was used as a criterion of sample size. The researchers felt that saturation was achieved after the eighth valid interview failed to generate any new themes. Recorded interviews were coded to ensure confidentiality. Peer debriefing was done with the main researcher before data collection to make him aware of his own perceptions and to reduce possible bias. Ethical approval of the research was obtained in advance from the Research, Ethics and Publication Committee of Medunsa.

### Analysis

All the interviews were transcribed verbatim using a computer word processing program. The grounded theory formed the basis for the analysis. The cut and paste method was

used on the computer to search for themes in the transcribed interviews. The three researchers identified themes independently to enhance reliability. The three analyses were compared and the researchers compiled a final set of themes. Themes that emerged were sent for respondent validation. Seven out of eight participants confirmed that they agreed with the themes. One participant did not respond. Themes that emerged from all the texts were combined in a common list. Similar themes in the combined list were coded into categories. A model was developed from the categories showing the interrelatedness of the themes. Conclusions were drawn from this model. A peer review was performed on the analysed data to enhance the validity of the analysis. It was performed by a colleague who was not an M Fam Med student and she found the flow to be logical from the text to the themes and to the model.

## Results

The demographic details of the

participants are given in **Table I**.

The themes that emerged from the texts are discussed below.

A theme that was expressed by most of the participants is that patient studies are a good learning tool. One participant said, *"It is a good way of learning, one of the many ways by which we can learn about a given subject, we expect to reach something positive at the end"*.

The participants felt that students could master the area of medicine in which they do a patient study. It updates knowledge, helps growth as a family physician, enhances the students' confidence as a family physician and changes the family physician's way of handling clinical problems. Among the quotes leading to the above themes are: *"Medicine is a vast field and we cannot know everything but through patient studies we may master it"*; *"This changes our way of handling the problem because next time when we are faced with the same problem we know what is it and how are we going to handle it"*; *"Through patient studies we learn what the new trends*

*in the management are so that we can be at the same level of knowledge as other people world wide"*; and *"We want to grow in our clinical practice and we know it better through patient studies"*.

The participants pointed out different positive aspects of patient studies. According to them, patient studies help with getting in touch with patients and are a way of sharing experience with colleagues, therefore they play a role in professional development. The students also learn how to do a literature review for research through patient studies. As one participant put it, *"When I did a patient study, I went to the patient and it was interesting to get in touch with patient, to know where he was from, what was his social life"*. Another said, *"When you do patient studies, you need to do literature review and the process you learn is very useful when you are doing your research"*.

Participants felt that the patient studies could only be beneficial if done correctly. *"Not everybody does it that way, but those who have been*

**Table I:** Demographic details of the participants

Participant	Number of patient studies completed	Participant	Number of years of study	Examination attempts	Area of practice	Facilitator
1	8 *	1	4	Passed in first attempt in 3rd year	Semi-urban	A
2	2	2	1	Examination not yet mature +	Rural	B
3	10	3	5	Preparing for 1st attempt	Rural	C
4	6	4	3	Examination not yet mature	Semi-urban	A & B
5	8	5	4	Preparing for 1st attempt	Rural	B
6	11	6	5	Failed at 1st attempt in 4th year	Urban	D
7	8	7	5	Preparing for 1st attempt	Rural	B
8	8	8	3	Passed at 1st attempt	Peri-urban	E & F

*doing it in a good way find them quite beneficial."*

Different participants realised that encouragement from others is beneficial in the completion of assignments. It could be a teacher, a senior colleague, wife or, in one case, a fellow student who was doing similar assignments. For example, one participant said, "*Professor told us that if you want to progress, do your patient studies. So I said I would do the patient studies*". Zeal to complete the course in time and pride in one's studies are also encouraging factors.

Most of the participants welcomed the changes in the system of assignments introduced by the Family Medicine Department. The majority viewed the changes as an improvement. For example, one participant commented "*The fact that they have chosen a package of assignments to make a total of twelve assignments is a good thing because it adds variety to the assignments*".

The participants also pointed out some negative aspects of patient studies. A general impression among students is that a patient study is a difficult assignment to do

and to understand. One participant commented, "*It is a bit difficult to grasp. When I started, I could not understand what they wanted me to do*".

Almost all the participants indicated problems that they encountered during writing patient studies. One participant observed that the reason why students leave the course without finishing it is the problems they encounter in writing patient studies. The difficulties encountered in doing patient studies are presented in **Table II**.

The participants made several recommendations to improve patient studies as a learning tool. Nearly all the participants frankly suggested a variety of changes in either patient studies or in the way they are handled. All made a plea for more orientation. Other suggestions included quick and detailed feedback, strict enforcement of a schedule for the completion of patient studies, a reduction in the number of patient studies, a change in the focus of patient studies towards being more clinical, improvement in the communication system between facilitators and students and improvement in the availability of resources. Only

one participant suggested doing away with patient studies and giving more lectures instead.

The model constructed from the categories is shown in **Figure 1**. The model is a pictorial representation of the process that was uncovered by the study. In the figure, the child represents a typical M Fam Med student. The tool in his hand is a screwdriver, which is a symbol for patient studies. The plank in which the screw is being driven represents the outcomes of the patient studies. The themes grouped under the outcomes are inscribed on the plank. The grey arrow facing the student represents the negative aspects that affect students while writing patient studies. The white arrow facing the student represents the positive aspects that help students in the writing of patient studies. Participants' recommendations to improve the patient studies assignment are written in a cloud-shaped callout. The isolated suggestion to abandon patient studies, which was recommended by one participant, is represented by an explosion symbol hanging in the air.

## Discussion

No literature exists on patient studies as a learning/teaching tool. This is the first study on students' perceptions about patient studies. The general impression gained by this research is that students are positive about the usefulness of patient studies. They view them as a valuable learning tool. They are also aware of specific advantages that are a by-product of a patient study, for example learning how to do a literature review for the purposes of research.

The final outcome of patient studies is a change in the students as people. They master medicine, change their way of handling clinical

**Table II:** Difficulties faced by the students in doing patient studies.

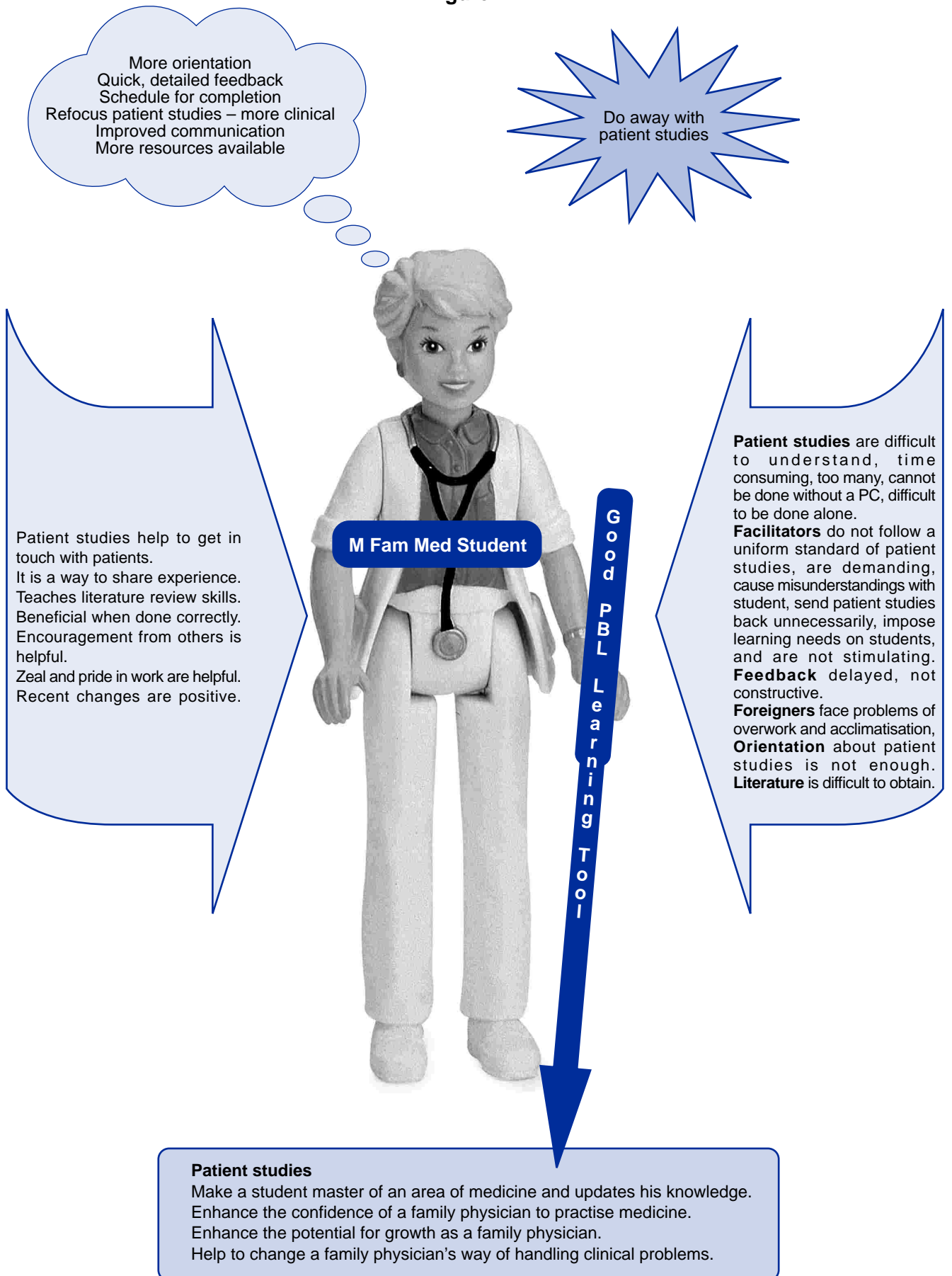
### Problems that appear to stem from the facilitator-student relationship

- Misunderstandings in the facilitator-student relationship.
- Delay in feedback from the facilitator frustrates the students.
- Feedback is overly critical at times.
- Facilitators impose their ideas of learning needs on the students.
- Facilitators send patient studies back repeatedly.
- One participant felt that facilitators do not stimulate learning.

### Problems that appear to stem from logistics of doing patient studies

- A patient study cannot be written without a personal computer.
- Patient studies are time consuming.
- Students feel that there are too many patient studies.
- Majority of students struggle to get literature, especially from the resource centre of the Department of Family Medicine.
- Students felt that lack of orientation on the part of facilitators and the Department of Family Medicine about patient studies is a major problem.
- Foreign students face a compounding problem of overwork and acclimatisation.

Figure 1



problems, gain confidence and acquire potential to grow as a family physician. These changes in the students as people are in line with the aim of patient studies in M Fam Med, viz. imparting the skills necessary to become life-long self-learners.<sup>12, 15</sup>

Positive aspects that help them in doing patient studies mentioned by the students are worth noting. Zeal and pride in one's work and encouragement from others can be readily available resources that may be used to stimulate students to complete their assignments in time.

Awareness of the positive aspects at a conscious level may be helpful for both students and facilitators.

As the participants were posed an open-ended question, it is not surprising that, along with pointing out salient features of the patient studies, as they perceived them, they were liberal in their comments on the difficulties they experienced in doing them. The difficulties, which are grouped under the negative aspects in the model, appear to stem from two distinct problems. One is the student-facilitator relationship. The student-facilitator relationship can be equated to the doctor-patient relationship. A trusting student-facilitator relationship can result in the problem-free completion of assignments. The other area of difficulty is the logistics of doing patient studies. Students of M Fam Med are distance based, which contributes to logistic problems. Awareness of the difficulties faced by students in doing patient studies can mentally prepare the facilitators and the students to face the challenge of timely completion of assignments.

The findings of this research are consistent with the broader research on PBL and experiential learning.<sup>3, 4,5,6,7,8,9</sup> They confirm that PBL and experiential learning have the capac-

ity to be used to teach students Family Medicine at postgraduate level, although these teaching methods have their own inherent problems.

The results of this qualitative study have the potential to be transferred to another, similar setting. True to the qualitative research paradigm, this research was effective in eliciting valuable perceptions from the participants. A weakness of the study is that no female participants were included in the study. Another weakness is that the participants might have struggled to express themselves because of a language barrier. English was not the first language of the participants or the researchers. The fact that the researcher who did the interviews was a student of Family Medicine at Medunsa at the time of the study had a potential to introduce bias.

It is concluded from this research that students perceive patient studies to be appropriate assignments for M Fam Med, although they face difficulties in doing them.

In the light of these conclusions, it is recommended that patient studies should continue to be incorporated in assignments for M Fam Med. The difficulties encountered by the students in doing patient studies should be taken seriously by the Department of Family Medicine. A high premium should be placed on the relationship between the facilitators and the students. This relationship should be based on mutual trust and respect. If either of the duo feels that the relationship is not optimal, the Department should not hesitate to intervene. Negotiated interventions could include either active measures to improve the student-facilitator relationship or changing the facilitator. The Department of Family Medicine should do its utmost to resolve the logistical problems related to doing patient studies.

Improving the efficacy of the departmental resource centre would go a long way to improve the present situation.

### Competing interests:

None declared

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