

## Reflection of Physiotherapy Students in Clinical Placement: A Qualitative Study

(Refleksi Pelajar Prasiswazah Fisioterapi dalam Penempatan Klinikal: Kajian Kualitatif)

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### ABSTRACT

*Clinical education provides students with opportunities to integrate knowledge and skills at progressively higher levels of performance. This study determined the significant events that undergraduate physiotherapy student reflects on during their clinical experiences as they learn to become a physiotherapist. A qualitative study using reflective instruments of structured debriefing sessions and diary writing was carried out. This involves 25 fourth-year students from the Faculty of Health Sciences, UKM during their 12 weeks of clinical placements in 3 different modules (first semester). They were required to describe an event, its value and their reaction to it, and to discuss the effect of the new learning experience and how it would influence their respond in the future. Our findings confirmed that the process of writing a diary makes a considerable impact to the student experience during clinical placement. The subjects begin to construct a personal identity of becoming a physiotherapist through the process of developing confidence, confirmation of practices and assimilating of knowledge. In conclusion, the main themes generated from a reflective diary included their reflection of personal growth, on how they learnt in a clinical setting, and on the ethical and professional behaviors of themselves and colleagues. This provides the clinical educators with valuable information to design meaningful clinical learning experiences that would assist students to become a good physiotherapist for the future.*

*Keywords: Clinical educator; clinical placement; diary; reflection*

### ABSTRAK

*Pendidikan klinikal menyediakan para pelajar dengan peluang untuk mengintegrasikan pengetahuan dan kemahiran pada tahap prestasi yang lebih tinggi dan progresif. Kajian ini mengenalpasti peristiwa penting pelajar fisioterapi ijazah sarjana muda, mencerminkan pengalaman klinikal mereka untuk menjadi ahli fisioterapi. Satu kajian kualitatif yang menggunakan instrumen sesi soal jawab berstruktur dan penulisan diari dijalankan. Dua puluh lima pelajar tahun empat dari Fakulti Sains Kesihatan, UKM telah melibatkan diri dalam kajian sepanjang 12 minggu mereka menjalani penempatan klinikal dalam 3 modul yang berbeza (semester pertama). Mereka dikehendaki menggambarkan peristiwa, membuat penilaian dan mengenal pasti reaksi mereka, dan membincangkan pengalaman baru yang dipelajari dan bagaimana perubahan yang berlaku akan mempengaruhi tindak balas mereka di masa akan datang. Hasil kajian mengesahkan bahawa proses menulis diari memberi impak yang besar kepada pengalaman pelajar semasa menjalani penempatan klinikal. Subjek mula membina identiti peribadi untuk menjadi ahli fisioterapi melalui proses keyakinan diri, pengesahan amalan dan pengetahuan mengasimilasikan pengalaman mereka. Sebagai kesimpulan, tema-tema utama yang dikenal pasti daripada diari mencerminkan pertumbuhan peribadi mereka, bagaimana mereka belajar dalam persekitaran klinikal, tingkah laku yang beretika dan pembentukan profesional diri sendiri dan rakan-rakan. Maklumat yang berharga ini penting kepada pendidik klinikal bagi menyediakan pengalaman pembelajaran klinikal yang bermakna, yang akan membantu pelajar untuk menjadi ahli fisioterapi yang baik pada masa akan datang.*

*Kata kunci: Diari; pengajar klinikal; penempatan klinikal; reflektif*

### INTRODUCTION

Reflective practice is a learning strategy that involves thinking critically about one's actions and is a cornerstone of continuing professional development (Clouder 2000). With the present climate of accountability, physiotherapist needs to demonstrate evidence-base practice in the profession. An essential component of continually developing as a professional and being clinically effective is through critical self-appraisal by reflection. Critical

reflection has been defined as “the higher order intellectual and affective activities in which physiotherapists engage to critically analyse and evaluate their experiences to lead to new understandings and appreciate the way they think and operate in the clinical setting” (Donaghy & Morss 2007). The promotion of reflection among the health care professions has provided opportunity to correct the limitations of positivism, especially when dealing with uncertainties, and by encouraging critical appraisal of the

self, incumbent beliefs and attitudes in interaction with the people and the environment (Boud et al. 1985). As a result of this, there is a shift towards a more holistic approach of intervention among physiotherapists when handling clients/patients, increased awareness of psychosocial issues, and the inclusion of psychology and sociology within the curriculum framework.

The importance of reflecting on experience in clinical placement would develop higher order cognitive skills such as critical enquiry and deeper approaches to learning (Cross 1993; Routledge et al. 1997). Recognising the value of reflection on practice, the physiotherapy programme of Faculty of Health Sciences, UKM acknowledges the importance of "making space" for reflection in the curriculum to develop these skills among students. Journal writing has been used to promote reflective thinking in health science students and professionals, to facilitate the link between academic learning and clinical practice to assist students to explore and change their attitudes toward patients (Jensen & Denton 1991; Landeen et al. 1992). When writing a reflective journal, students were asked to describe a learning event or situation, explain how the experience have led to a new understandings and appreciations, and consider how they might act differently in the future. This has been emphasized by Shepard and Jensen (1990) for physiotherapists to have 'reflective' knowledge in order to deal with uncertainties and value conflicts (Shepard & Jensen 1990).

The physiotherapy education currently have now focus on higher order cognitive processes that is related to critical enquiry, problem solving, and clinical reasoning. It is essential to establish a clear understanding of the purpose and aim of providing a framework for the facilitation and assessment of reflection, combined with the provision of an ethically acceptable means of gathering evidence of reflective activity. Such framework can be exemplary of structured reflection within the discipline of physiotherapy education that may help students and perhaps clinicians to focus on their learning and the recording of that learning through practice. The purpose of this study was to determine the themes generated from the reflections of physiotherapy students' during clinical placements.

#### CURRICULUM AND SEMESTER DESCRIPTION

The physiotherapy degree program offered by the Faculty of Health Science, UKM comprises of a four-year program with 8 semesters. In order to be admitted to the program, students must poses 3 passes in the GCE A level examination. This includes General Paper and Biology and one of the following subjects (Chemistry, Physics and Mathematics) or an excellent pass with CGPA more than 3.0. Students who hold a Diploma in Physiotherapy from recognised institutions is also eligible. As a graduating requirement students are required to complete 165 notional credit hours. The basic science courses are offered in year 1 and 2 while the physiotherapy courses are scheduled

in year 2 to 4. The learning methodology includes small-group, problem-based learning tutorials and clinical skills laboratories based on problems/ case scenarios which were enhanced with discussions.

In exploring their clinical experiences, a reflective diary would provide information to lecturers and clinical educators about their learning experiences. It is the objective of this study to determine the significant events that the students reflect on during their clinical placements in preparation of becoming a physiotherapist.

#### METHODS

This qualitative study was conducted during the students' clinical placements in the first semester of the 4th year Physiotherapy Program at the Faculty of Health Sciences, UKM.

#### STUDENTS/SUBJECTS

Twenty-five students (20 females and 5 males) with mean age of 20 years (range 20 to 23 years) participated in the study. These students were from the fourth cohort admitted to the physiotherapy program. All students spoke Bahasa Malaysia and English. The fourth year students had completed the academic component of year 3 and were in their fourth year of clinical placement. This placement provided them with 12 weeks experience primarily with clients in multidisciplinary areas (cardio-respiratory, musculoskeletal and neurological conditions). Students practiced in 3 different modules involving 2 hospitals, under the supervision of clinical preceptors and university instructors/ coordinators. The study was approved by the Ethics Committee of University Kebangsaan Malaysia Medical Centre (UKMMC), and all participating students signed an informed consent.

#### EVALUATORS

Four instructors were involved in reading, coding and identifying the major themes that emerged from the students' reflective journals. One of the instructors is from Hospital Kuala Lumpur and the other is from the Physiotherapy department of University Kebangsaan Malaysia Medical Center (UKMMC). Each of them had taught one course to the students. The other two instructors were not involved with the students during their clinical placements. Their analysis was used to confirm the interpretation of the entries made by the other two evaluators.

#### PROCEDURE

The students were asked to write a reflective journal, which is a new exercise for all students. This assignment was one of the requirements for a pass mark in their clinical placement. They were required to make one entry

per week for the duration of their clinical placement and to submit the journal diary following the end of each placement module to the university instructor involved in their clinical supervision. There were 3 modules each of 4 weeks duration with the instructor not providing any feedback to the student at that time.

The students were instructed to include the following in their reflective journals. They should include observations, impressions, and reactions to what they have learned in the clinical placement of the semester and how they are applying it to clinical practice. They should also determine how the clinical experience had changed what they felt, or did in the past, and how they should respond in the future if they are the physiotherapists in-charge? They are expected to write at least one journal entry per week during their clinical placement for the 12 week durations, consisting of the following:

1. Describe the learning event experience during the clinical placements. Provide information on prior knowledge, feelings or attitudes with description of the new knowledge, feelings or attitudes during the course of the clinical placements.
2. Analyse the learning event in relation to the prior knowledge, feelings or attitudes. Determine their reaction to the learning event and response which may include cognitive and emotional reactions with focus to why it happened.
3. Verify the learning event in relation to prior knowledge, feelings or attitudes. Determine the value of the learning event that has occurred and how this new knowledge, feeling or attitude about the learning event can be improved.
4. Describe the benefit of the new understanding of the learning event. Determine what is their new understanding of the learning event.
5. Indicate how the new learning event affected their future behavior. Determine the clarification of an event, the development of the resolution to a problem. Describe whether they will approach the same or similar event differently in the future.

#### DATA ANALYSIS

The method described by Coffey and Atkinson (1996) was used to analyse and interpret the data in the students' journals (Coffey & Atkinson 1996). All the fourth-year students who participated in the study sent their diary according to the schedules given to them. The analysis was conducted in two phases. In Phase 1, one evaluator selected five journal entries based on their readability level and diverse content and forwarded them to the second evaluator. The two evaluators read and coded the five journals independently. They then met to discuss and establish agreement on the coding. In Phase 2, the two evaluators independently read and coded all remaining journals. They met again to determine agreement on the content of each entry, group the codes into categories and finally and determine major themes. When coding discrepancy

occurred, the evaluators discussed the discrepancy and came to a consensus. Analysis was done by NVIVO8. Following that, the following two methods were used to validate the analysis and interpretation of the data. In the first method, the third evaluator independently read and labelled all journal entries to confirm the interpretation of the content, the themes established by the evaluators were presented to two students who had completed the journals, and who volunteered to provide feedback on the authors' interpretation of their reflections.

#### RESULTS

The two initial evaluators came to a consensus on four themes concerning the clinical learning experience of the students. These themes did not change as a result of the coding of the third reader or the feedback from the students. However, these additional data occasionally resulted in a change in emphasis of some of the content within a theme. Whenever this happened, the differences were described.

All students outlined the positive impact and value of their learning from the clinical placement. The event and issues discussed by the students were classified into the following four themes (Table 1).

TABLE 1. Issues emerging from the reflective diary

Breakdown of areas of discussions in analysis of the diary	
Theme 1	Demonstration of professional behaviours which involves skills and attitudes, scope of practice, professional boundaries, and respect for clients and colleagues.
Theme 2	Demonstration of awareness of learning which included clinical versus academic learning with clients as a source of learning to gained new knowledge
Theme 3	Demonstration of self-development with a shift to a more client-oriented focus over time during clinical placement
Theme 4	Students feedback

Each of the themes above were discussed below with quotes provided for illustrative purposes.

#### PROFESSIONAL BEHAVIOURS

The students appeared awareness of their own behavior and other health professionals and students. They reflected on how they should behave as professionals, and how to behave in general. The events that precipitated students' reflection included actions of themselves and other health professionals and included what they regarded as both

positive and negative behaviors. The students referred to the physiotherapists and other health professionals who helped them and modelled their good professional behavior. They commented on professional boundaries, being concerned about the client-therapist relationship becoming too personal and limits to the scope of physiotherapy practice. In addition, the students noted that self-directed learning, and life-long learning were professional responsibilities of the profession.

The students provided feedback and emphasized professional behavior (both negative and positive) that was learned from patients who might show them their appreciation, be patient or uncooperative, or provide specific feedback regarding the student's communication or clinical skills. The students also provided examples of "crossing boundaries" in terms of professional competencies and relationships with their patients and supervising clinicians.

*I realise being patience is a very important element when handling elderly with multiple problems of the joints [student 10\Posting 3].*

*Dealing with the patients is a challenge especially following post-operative procedure. Patient at these moments are in intense pain, and this causes depression with some disturbance psychologically. Therefore, a physiotherapist should particularly be considerate and consider these factors when dealing with the patients [student 3\Posting 3].*

*I will learn to be patient while treating the elderly and emphasized on the safety issues to prevent further injury to the patients when carrying out any intervention. A clear and simple explanation for the elderly is necessarily so that they are able to cope with the activities given [ Student 3\ Posting 3].*

There was a situation, that needed me to be stricter to ensure that the patients will carry out the activities which I ask them to do. I have explained to her husband and sister the importance of why we need to let her do it by herself. She has been having a stroke for already 5 months, and her conditions is going to worsen if she does not do things for herself. Her family understands the rationale for it and finally facilitates the father to carry out the treatment. I have difficulty educating the patient because she did not understand Malay. Probably, I have to change my strategy of using body language and psychology to make her appreciate the importance of exercise [ student 15\Posting 7].

I get to understand the importance of multidisciplinary approach working in the ICU, CCU and wards to serve the best interest of the patients [student 12\Posting 7].

#### AWARENESS OF LEARNING

Although the entire reflective journal assignment was designed to have students reflect on their learning, this theme was included to capture the components of learning

that was discussed by the students. They demonstrated good knowledge, but also commented on the unique aspects of clinical learning. The students particularly noted how working with real patients was not as straight forward as their academic learning. These students realized the need to be self-directed learners because they were always encountering new situations when dealing with patients/clients. They acknowledged the patients/clients as a source of knowledge, and that the clinical situations provided a stimulus to learn.

In the feedback session, students particularly emphasized how the clinical experience had enhanced their learning. They also indicated that clinicians reinforced the need for critical reasoning due to complexity of the patients' conditions. Some clinicians welcome new knowledge from students, for example, learning about outcome measures, while others indicated they did not have the time and seems disinterested.

*I have learnt to take extra precautions during treatment for patients whose sensation is impaired or absent to prevent further injuries [ student 2\Posting 7].*

*The understanding of the learning event allow opportunity for me to able to determine the priority of patient's need and their main problems [student 1\Posting 1].*

*The new understanding I have learnt is about effect of exercise on the patient physiologically and physically. I must understand the reason why I choose the treatment given so that my knowledge of evidence base practice must be always updated continuously benefit the patients [student 2\Posting 7].*

*Analyzing the patient conditions and carrying out the assessment is most important when planning an effective treatment on the patients [student 12\Posting 7].*

#### SELF-DEVELOPMENT AND ORIENTATION SHIFT

The theme on self-development was derived from the content of individual student entry, but was observed in the changes demonstrated in the reflections, as students proceeded through their placements. Often at the beginning of the clinical placement, the students were unsure of themselves, but eventually gained confidence as they worked with the client/patients and learned from them and their colleagues. The differences in their learning experiences across the journal entries was even more noticeable at the later placement. In many of the early entries, students described their own emotional response to a client or a situation. They were concerned about their own performance, and about what they were learning from the placement. They indicated how an event had an impact on them. The later entries were more client-centred. The focus was more on how the client responded to an event, or how helpful a physiotherapist was. Students also demonstrated an increased in confidence with the more experiences gained. It became evident from the

third reader's summary that students were aware of how their professional behaviour have influence their direct patient care, which could ultimately have an impact on the patient. They focus specifically to the maintenance of knowledge and skills and to relationships with other health professionals.

In the feedback session, the students demonstrated their initial lack of confidence which improves during the clinical placement. They also commented that it was difficult to demonstrate the "correct confidence level" to their clinical educator, particularly when they were occasionally told that they were "over-confident". They felt that their self-development was affected by the behaviour of other physiotherapy students, the method of feedback from instructors and whether their patients/clients improved or not as well as the trusts communicated to them during the process of learning.

The quote below illustrates how the student confronted his/her uncertainties during patient/ client encounter and their acknowledgement of the change in his/her confidence with increasing experience gain during the clinical placement. As the quotes illustrate, the student was concerned about what to do, but was able to overcome the emotional response, problem solve about the management of the client, and take action.

*I started to change my way of intervention for the elderly. In fact, they are not like younger patient. I planned to carry out simple exercise, so that it is easily achievable goal by the patient before progressing further with more difficult regimen. I learned to talk slowly with straight forward instruction to the elderly. As a result, the elderly were more co-operative and a better outcome was achieved [student 1\Posting 7].*

*I felt more confident in patient handling. I become aware on the damages I can do on the patient if I do not have prior anatomical knowledge . By positioning the patient appropriately like resting the feet on the floor, is more appropriate since it is more safe for the patient [student 9\Posting 7].*

*I must understand about pain and use a psychological approach to make the patients wants to do the exercise [ student 5\Posting 7].*

*All physiotherapist in the ward needs to prepare themselves with knowledge of psychology because most of the patient whether they are having neurology or musculoskeletal problems are actually in depressed stage. We need to understand this first, to ensure the patient will give full commitment to the treatment session that they are undergoing [student 8\Posting 7].*

*I've learned that sometimes the patient's emotion does affect us when carrying out our job. Instead of forcing the patient to continue doing what we want, we should calm down and also work with them and other team members or teach the patient's carer or staff nurse in the ward to encourage the patient [student 4\Posting 7].*

## FEEDBACK FROM STUDENTS

The students agreed with the four themes and did not think that any major concept was omitted in this analysis. However, they added some insight to the content and interpretation of each theme. The students emphasized that many people affect their learning including university instructors, physiotherapists and other health professionals, their colleagues as well as the patients/clients. They felt that the information derived from the analysis of the reflective journals was very important.

*I have been struggling to determine which problem I should prioritize. After discussing with the therapist, I was asked, to asked the patient what they want to achieve first. If their goal is more/ less similar with our treatment's goal then we can achieve some goal together. If our goal were in contrast with them, then we have to decide which one is the most important for patient [ student 5\Posting 1].*

*The physiotherapist have corrected my handling skills and discuss about my intervention [ student 8\Posting 1].*

*Under the supervision of Madam X, I was able to realize my mistakes when carrying out the assessments and treatments. This is a good lesson and I will avoid making the same mistakes again the next time when handling another patient [ student 3\Posting 1].*

## DISCUSSION

This study have provided another avenue of best practice among future physiotherapists. By making reflective journal a compulsory activity for the students, a healthy culture is integrated in the student's attributes of learning. Nevertheless, for such systems to be successful there needs to be a change in the culture even among the clinicians as they are partly responsible as role models in making journal writing feasible as a healthy practice. Only then will the individuals start valuing themselves and recognize the need for change of practice among the professionals. As observed among the physiotherapy students, the provision of a framework for reflection have facilitated them to make journal writing easier. This students have described not only the learning event, but also their emotional and cognitive reactions to it. They have analysed the situations to arrive at a new understandings and considerations of how they would behave differently in the future.

From the findings, the students have demonstrated three types of learning that were considered essential for clinical decision-making. These are propositional knowledge (academic learning – facts, concepts), professional craft (learning from experience), and personal knowledge (knowledge of self and unique frame of reference) (Donaghy & Morss 2000). Their comments on knowledge gained included treatment techniques, medications, and the unique learning opportunities of clinical placement such as application and enhancement of academic learning, learning new skills, response to novel

situations. They acknowledged that their personal frame of reference affected their clinical interactions, but was also modified by their clinical experience when encountering clinicians, patients/clients and their colleagues. Although the students did not categorize their learning in the three areas, they were able to describe the acquisition of knowledge and skills required for making clinical decisions.

There findings are consistent with a similar study carried out by Jensen and Paschal (2000). In their study, themes of student self-adequacy and inadequacy of 23 physiotherapy students were determined from their writing in the journals from their first clinical placement (Jensen & Paschal 2000). Similarly, Tryssenaar and Perkins (2001) demonstrated that reflection on personal growth was still evident at the end of the educational programs and the beginning of careers for physiotherapists. The students in their study described initial anxiety and then develop increasing confidence about their ability as graduate physiotherapists and became more patient-centred with time.

The shift to a client centred approach is part of the transition that students go through from their initial clinical placement to subsequent placement during their physiotherapy education. Most students described their personal reactions more frequently at the beginning of the placement, and the patient's unique situation more frequently in the later weeks. Perhaps with each new experience at the beginning of a clinical placement, the students will be temporarily more self-centred as they deal with their anxieties and uncertainties. However, as they become more comfortable with their own abilities, they can focus more on the patients/ clients. Such a pattern is in agreement with the finding mentioned above, as demonstrated by the students as they become more client-centred (Tryssenaar & Perkins 2001).

It was an admirable situation where mostly the students when spoken verbally, were reluctant to self-evaluate, to express their opinions, to admit that they did not understand or take active steps to acquire needed information. However, in the reflective dairy, the students certainly voiced their opinions, admitted their perceived inadequacies, and expressed pride in their achievements in the reflective journals even though some may have been less forthcoming with their clinical preceptors or university instructors/ coordinators, particularly when they did not agree with them. Students have indicated that the writing of the journal provides a framework for the reflective process (Jensen & Saylor 1994; Williams et al. 2003).

Therefore, by encouraging reflective practice, we can promote introspection, analysis, discussion and enhanced understanding of the complexities of practice. The limitation of writing a reflective journal is the inability of the students to express themselves with words of vast vocabulary. Expressing themselves in the reflective journal in the English language might be handicap, as both the Chinese and Malay students might not be expressive enough when writing the journal in the English language.

However, this should not be a hindrance, but to promote the practice of reflective diary among the students so that this become a habitual event, since they are the future clinicians. Suggestion of allocation of protected time, be set aside for such practice within a formalized structure is necessary to give space for time to reflect and should be considered among heads of departments.

#### CONCLUSION

Physiotherapy students from the Faculty of Health Sciences, UKM have benefited from the writing of reflective diary carried out during their clinical placements. The reflective diary has proven a useful tool for developing their critical self-appraisal and clinical reasoning skills. By adopting a collegial approach would provide confidence in the students to work more closely with them in enhancing their learning further.

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