

**CLINICAL EDUCATION:  
AN INVESTIGATION OF EDUCATIONAL PROCESSES —  
THE APPLICATION OF STUDENT-CENTRED EDUCATION AND  
CLIENT-CENTRED CARE DURING UNDERGRADUATE  
PHYSIOTHERAPY CLINICAL PRACTICE**

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of the requirements for the degree of**

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## **DECLARATION**

I hereby certify that the work embodied in this thesis is the result of original research and has not been submitted for a higher degree at any other University of Institution. The project was self-funded.

Keri Marie Moore

Date

Signed by

## PRESENTATIONS MADE AT CONFERENCES

The annual conference of the ***Australian and New Zealand Association of Medical Educators***. Launceston, Tasmania, Australia. June 2009.

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*Translated from Irish:*

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## ABSTRACT

The literature regarding clinical education strategies, that simultaneously meet both the student's and the client's needs, is limited. The purpose of this research was to identify features of clinical education processes that epitomize student-centred education and client-centred care.

The literature explored the concepts of undergraduate clinical education and the need for health practitioners to be client-centred. Focusing on physiotherapy pre-professional education in ambulatory care settings, a mixed method approach using surveys, observation and interviews was used within the analytical and interpretive paradigm of research. The participants were the students, clinical educators and their clients for whom care was provided.

It was found that while physiotherapy clinical educators say they have time to participate in professional development in clinical education, they often only attend a one-day workshop. Only in those working in private clinics thought they were underpaid. They all believe, they are well informed, supported by the university.

Students report educators display high-quality teaching behaviours. Educators match their style of supervision and teaching strategies to their perception of the students' learning needs and the clients' health care needs. There was no association between the model of supervision and the client-centredness of the consultation, or the dialogue and feedback between the student and the educator. The management of the education and health care scenario is dependent on the expertise of the educator.

Clients, in the main, are satisfied that clinical education events do meet their expectations and health care needs and they have a positive attitude toward participation in physiotherapy clinical education. Their willingness to participate is balanced with a sense of altruism and self-centeredness.

Some clients edit the feedback they offer students, with the idea that their genuine thoughts might negatively affect the students' learning. If this is not checked in the normal course of management of clinical education, it is possible that students might develop a false sense of how their activities actually affect clients. Thus the student may develop a false sense of their skills and abilities.

The findings suggest strengthening the clinical educator's deeper knowledge of education, particularly around models and theories, might enhance clinical education outcomes because there is a disparity between what students and educators reported regarding the *timing* of their discussions about episodes of client care. Further, the students' perceptions are totally different from the educators' regarding which particular *topics* they discuss. There is a clear need to strengthen the alignment between students' learning needs and educators' foci of discussion – to raise awareness of the importance of de-briefing as an opportunity for promoting deeper reflection on learning. Also, to be more explicit about the active nature of the client's role in the learning event and to emphasise student–educator discussions about how the client can contribute to the management of the client's self-care. Such discussion ought to build on the student's previous knowledge in an effort to provide opportunities to construct learning from prior experience.

Kolb's (1984) Experiential Learning Cycle was proposed as a model to critique contemporary clinical teaching practices, but in a way that included the third party (the client) in consideration of any clinical education event. Consequently, Kolb's model was extended to include the client's voice in the experiential learning processes, through processes involved in obtaining consent and post-consultation evaluation of the clients' experience of the clinical education event. Given that the Australian Physiotherapy Council (2006; 2009) advocates for entry level health professionals to be client-centred, this emerging educational framework adds to current approaches on the management of professional practice experiences. It has the potential to significantly inform and impact on the student's development of a client-centred approach to clinical practice.

## CHAPTER ONE INTRODUCING THE STUDY

*Campus-based instruction can prepare students for experiences, but practical learning takes place in struggling with painful realities. Doctors [Health Professionals] add to the total sum of good in the world as they care for other human beings who need help. Such humanity is not learned in lecture. (Cox, 1990, p.566).*

Optimal care from health professionals, such as those in physiotherapy, offers the client the chance for possibilities — for positive change, improvement and ultimately good health. Equally, care processes can err on the side of malpractice, whereby discipline proponents are indifferent to the clientele or negligent to the extreme. Such a scenario is, thankfully, quite remote but its likelihood, with poor service delivery modelled to a new generation of health professionals, is omnipresent.

In terms of my own experience, across more than thirty years in private practice and in health education of six different health disciplines, I have been intrigued by the clinical education component of health professional courses. As the quotation above illustrates, it is in the clinical education experience that students learn to apply their theory to practice. Sometimes, clinical practice can be the first time students are exposed to human beings who are unwell. Because of this, I have pondered if, in the day to day running of teaching clinics, alongside the development of their clinical capabilities, we employ clinical education processes that develop the students' humanity? Put simply, I have wondered whether academics are focused too much on teaching discipline specific clinical capabilities? Do we need to reconsider clinical education models and frameworks that further develop the students' client-centredness? I have also contemplated what clients might be thinking when they leave a clinic where students have been engaged in learning. Do clients feel they have been a teaching object, or do they feel they have received appropriate health care?

My experience of educational approaches to clinical education has varied greatly. On one end of the continuum, I have seen educators use an approach that requires students to explain their thinking and justify their actions. The result is that these clinical educators potentially make a significant contribution to the professional development of new practitioners. Similarly, my experience of the other end of the continuum shows that there have been well intentioned clinical educators who struggle to know what to do and how to manage and monitor students' work in the best way.

At the extreme end of the spectrum is the educator who has a superior indifference or who behaves as if students learn by an osmotic approach in which they are meant to absorb knowledge with no guidance or mentoring at all. Engagement in scholarly discussions, conferences and workshops in Australia and Europe confirm my views that the quality of the students' learning experiences during the unpredictable and highly variable clinical education component of undergraduate health professional programs remains a universal concern with respect to quality and consistency.

This research therefore stems from a longstanding curiosity about the nature and extent of variation in clinical education practices. The research explores clinical education in physiotherapy (one health profession) in one university in Australia. In particular, it examines the views of the faculty who organize clinical education and also the three parties involved in clinical education scenarios. These key people are: the client with whom students are working, the undergraduate student, and the facilitator of learning, the practitioner educator. The defining parameters of this study centre on the exploration of the actions, intentions and expectations of the client, the student and the educator during their involvement in the clinical education situation in ambulatory care settings. The research questions which guided the development of the thesis were:

1. What features of the clinical education process epitomize student-centred education?
2. What features of the clinical education process epitomize client-centred care?

The aims of the research were to discover and develop a deeper understanding of:

- the current strategies clinical educators use in order to meet their dual objectives related to students' learning and clients' care;
- whether contemporary education processes meet all the students' needs; and
- whether the clinical encounter with the students appropriately meets the clients' needs.

Understanding these issues is important to the continuing improvement of physiotherapy clinical education. Speaking about physiotherapy clinical practices, Jones, Jensen and Edwards (2000, p118), wrote:

*'Therapists are constantly reading client responses (listening, observing feeling) and using these to build on their understanding and guide clinical decision to modify and improve their interventions...Equally important to the therapist's thinking are the client's thoughts about his/her problem.'*

However, the manner in which this important capability is developed in students during their undergraduate physiotherapy clinical education has hitherto been unexplored. It can be seen from the appraisal of other studies that they explored clinical education from the students', educators' and clients' perspectives singly and sometimes in combination of two of the three parties. Scenarios involving the triad have been overlooked. No single study, either in physiotherapy or other health disciplines has interrogated clinical education from the perspectives of each of the three key participants. Such scenarios involving the three simultaneously have not been observed in-depth.

Previous studies have been descriptive, simply exploring the following:

**a) Student and educator views** were explored by Knox and Mogan (1985) and later Mogan and Knox (1987), who explored students' and clinical educators' views of clinical education using the Nursing Clinical Teacher Effectiveness Inventory (NCTEI). Their study was repeated by Nehring (1990), Benor and Leviyof (1997), Kotzabassaki, Panou, Dimou, Karabagli, Koutsopoulou and Ikonomu (1997) and also Sieh and Bell (1994) and Woo-Sook, Cholowski and Williams (2002).

**b) Clinical educator behaviours** were explored by Price and Mitchell (1993) who observed (n=24) clinical educators' behaviours while educating groups of students. Also, Mogan and Warbinek (1994) explored, via observation (n=36), clinical educators' desirable and undesirable teaching behaviours towards students.

**c) Students' views of the clinical education environment** were explored by Dunn and Hansford (1997) who asked (n=229) students about staff–student relationships, nurse manager commitment, client relationships, the students' satisfaction and the clinical hierarchy and rituals. Chan (2001 and 2007) used the Clinical Learning

Environment Inventory (CLEI) to explore students' views of teaching and, more recently, to explore what they say actually occurs in contrast to what they would prefer.

**d) Clients' views of being involved in clinical education** have been explored by Cooke, Galasko, Ramrakha, Richards, Rose and Watkins (1996) who explored (n=278) clients' reactions to the presence of medical students during their consultations with their general practitioner. Jones, Oswald, Date and Hinds (1996) sought the views of (n=84) clients towards community based medical teaching. O'Malley, Omori, Landry, Jackson and Krvenke (1997) explored clients' satisfaction immediately following their visits to an ambulatory general medical clinic, during which they had initially been seen by a trainee and then by the practitioner. One hundred and three (n=103) client participants' responses were compared to a study of (n=372) clients' satisfaction in non-teaching encounters the previous year at the same clinic. Lynöe, Sandlund, Westberg and Ducheks' (1998) study involved (n=582) clients and sought to learn about their motivation for participating in clinical education. This was followed by a study by Westberg, Lynöe, Lalos, Löfgren and Sandlund (2001) which explored client's willingness to have students involved and the effect of informing clients of the student's presence in advance. Devera-Sales, Paden and Vinson, (1999) explored the view of (n=24) clients as to the participation of medical students in their health care. Thomas, Hafler and Woo (1999) explored (n=7) clients' views of being interviewed by first year medical students. Chipp, Stoneley and Cooper (2004) explored (n=281) clients' views of their encounters with medical students. Xing and Long (2006) explored (n=84) clients' level of satisfaction and experience in an acupuncture teaching clinic. Kuan's (2007) study of (n=153) clients explored their attitudes towards participating in clinical education. In addition, O'Flynn, Spencer and Jones (1999) explored (n=181) clients' experiences of the consent process for involvement in medical education.

**e) The effect of students' presence on a medical consultation** was explored by Vinson, Paden and Devera-Sales (1996) who observed (n=22) non academic physicians and (n=12) academic physicians to learn how much and in what ways the presence of a student affected the family physician's time taken managing clients. Thistlethwaite and Cockayne (2004) explored (n=92) clients' views of the process and what they understood was the purpose of being interviewed by students. Haffling and Håkansson (2008) also explored clients' views; they asked (n=495) clients about their attitudes to consultations involving students alone, and their perception of their teaching role.

**f) Clients', students' and staff experiences of an interprofessional training ward** were explored by Freeth, Reeves, Goreham, Parker, Haynes and Pearson, (2001) and that study involved ward (n=10) facilitators, (n=13) clinical staff (n=36) students and (n=4) clients.

**g) Students' client-centredness** has been explored by Haidet, Dains, Paterniti, Hechtel, Chang, Tseng et al., (2002) involving (n=673) medical students. The students' experience of the client-centredness of the learning environment was explored by Haidet, Kelly, Bentley, Blatt, Chou, Fortin et al., (2006) who asked (n=823) medical students, working at nine different hospitals, about their client-centred behaviours and the client-centred characteristics of the learning environments.

**h) Educators' client-centred practice** was explored by McCarthy (2006) who interviewed (n=6) clinical educators to learn their ways of interpreting, operationalising, documenting and teaching client-centred care.

**i) Student and clinical educator interactions** during clinical education were explored by Jackson, O'Malley, Salerno and Kroenke (2002) who developed a system to assess teaching behaviours in an ambulatory setting in medicine. They recorded thirty teaching encounters involving both students and educators.

**j) Clients' and students' views of clinical education** were explored by Robertson, Gibbons and Carter (2002). One hundred clients were asked about their views of working with students; they also explored (n=152) students' and graduates' views of whether or not their clinical education program had been effective.

**k) The tenor of client–practitioner interaction** was explored by Tsimtsiou, Kerasidou, Efstathiou, Papaharitou, Hatzimouratidis and Hatzichritou (2007) who used the Patient–Practitioner Orientation Scale (PPOS) to differentiate between client-centred and doctor-centred orientation in (n=483) medical students as they progressed through the curriculum.

The physiotherapy research into clinical education also involved descriptive studies:

**a) Client–student interaction**, which was explored by Väänänen and Luukka (2008) who sought to learn more about the various roles clients assume in physiotherapy



education. The study involved videotaped sessions involving (n=12) physiotherapists, (n=12) students and (n=12) clients

**b) Students' client centredness** has been explored by Dahlgren (1998) who studied physiotherapy students' (n=30) client-centredness. Christie and Cross (2003) used a survey to investigate physiotherapy students (n=44) to see whether students preferred a client-centred or a professional-powered model of working. Morris and Leonard (2007) explored physiotherapy students' opinions on the value of client-centred attitudes and behaviours to see if their understanding of the rationale for a client-centred role for the physiotherapists had increased while working in an interdisciplinary clinical setting.

**c) The effectiveness of the Model of Clinical Education** was explored by Morris and Stew (2007) who asked thirteen (n=13) physiotherapy clinical educators and eighteen (n=18) third year students about their experience of learning in the 2:1 student to educator ratio. This ratio, it was found, facilitated peer reflection. The study also found the educators requested further guidance on how to promote reflective practice during clinical placements.

The perceptions of stakeholders in these descriptive studies show that clinical education was seen as an inherently unpredictable but unique opportunity for students to practise their skills on members of the public. In the clinical education context the learning situations were often novel and sometimes involved scenarios with a high degree of risk for either the client or the student. In some instances during clinical education a student's anxiety can have a significant effect on their learning which could be either a motivating factor or an inhibitor of learning.

In summary, most studies to date have been descriptive. The lack of research focus investigating client-centredness in health professional education was captured in a noteworthy statement by Bleakley and Bligh (2008, p.89) as follows:

*While there is a good deal of rhetoric surrounding client-centred medical education, there has been little attempt to conceptualise such a practice beyond the level of describing education of communication skills and empathy within a broad 'professionalism' framework.*

Although the above quote was made in relation to medical education, it is nevertheless, applicable to health professional education in general. Therefore, this research combines an appraisal of the perspectives of the three participants involved in

physiotherapy clinical education and health care events, in order to present a picture of contemporary clinical education within a health profession in Australia through a deeper, multi-faceted exploration of features of an undergraduate physiotherapy program in one university. The approach to the research aligned with Chipchase, Dalton, Williams and Scutter's (2004) call for contemporary research that focuses on health professional clinical education. In response, this study involves an exploration and interrogation of clinical education processes, the experiences of the clients, educators and students. In particular, this research explored client–educator–student interactions.

This study extended previous research in physiotherapy and in other disciplines by exploring the following aspects of clinical education in four types of clinical education settings or contexts. The settings explored were private practices, community clinics and private and public hospital outpatient clinics.

In Part One of the study, interviews were initially carried out with the program coordinator and the clinical placement coordinator at the university. These provided a background overview of the perspectives and practices against which students' clinical education was set. It was important to discover the contextual overview of the tasks involved in establishing placements for students to attend and also in finding enough clinical educators to manage students' learning activities. The interviews also revealed the nature of the professional development activities in which clinical educators were typically engaged. The interviews were followed by student and clinical educator surveys which provided data about the typical nature of clinical education. The areas explored were:

### **The students**

- What do physiotherapy students value about clinical education?
- What difficulties do students encounter in clinical education?
- What are students' perceptions of clinical educators' teaching behaviours?
- What is the tenor of the feedback students are given by their clinical educators?
- What are the students' perceptions of the timing and the content of the discussion they have with their clinical educator about episodes of client care?
- To what extent do students seek feedback from their clients?
- What actions do students take if they suspect their client has had an adverse clinical event?

### **The clinical educators**

- To what extent do physiotherapy clinical educators engage in professional development activities related to clinical education?
- What are the educators' perceptions of the timing and the content of discussions they have with students about episodes of client care?

Part Two of this research involved observations of clinic education scenarios and these were followed by interviews with the clients, educators and students involved. The observations and interviews came from private practice and public and private hospitals only. The areas explored were as follows:

### **The client**

- To what extent are the clients asked to give their informed consent to student involvement in their physiotherapy health care?
- Are clients satisfied that clinical education scenarios meet their health care needs?
- Are clients satisfied with the level of supervision of students' work?

### **The clinical educator**

- What is the educator's rationale for their style of supervision and teaching?
- What do clinical educators understand by the term 'client-centred care' and do they feel they act in a client-centred manner?

### **The student**

- What do students understand by the term 'client-centred care' and do they feel they act in a client-centred manner?
- What are the students' views on the nature of clinical supervision and teaching?

In essence, this study examined the application of experiential learning theory in contemporary health professional education, to determine if it is inclusive of both student-centred education and client-centred care.

### **The research milieu**

The clinical education events that were the focus of this study took place between 2006 and 2008. In accordance with Patton (2002), the study involved selecting participants who could offer a perspective on the phenomena under study and who were thought to have experiences that would be representative of other physiotherapy clients, educators and students.

Clinical educators were state registered members of the physiotherapy profession in Australia who provide supervision for physiotherapy undergraduate students during the clinical practicum component of the academic program. All students were enrolled in

their third or fourth year in the Bachelor of Physiotherapy Program. Third and fourth year students were specifically recruited because it was considered that, during their clinical education, they would be involved in more 'hands-on' work experiences with clients and would be sufficiently familiar with clinical education events to be able to provide adequate informed comment compared with their first and second year counterparts.

The clinical education setting referred to in this study was the fully functioning clinical setting, where students and their educators work with clientele who are members of the public seeking advice and treatment from a physiotherapist. The areas of focus for the development of the thesis integrated five (5) scholarly activities of health professionals. These were:

1. Inquiry leading to the assessment of a client's needs;
2. Critical analysis leading to the interpretation of the findings;
3. Processes of decision-making related to the ability to develop a suitable, comprehensive intervention plan for the client;
4. Application of theory to practice in regards to the ability to perform clinical skills and to deliver therapeutic interventions; and
5. Evaluation of outcomes related to the ability to monitor the client's progress against the therapeutic interventions or treatment plans.

In physiotherapy education, as in any other tertiary education program, fundamental concerns are: quality personnel; quality delivery; quality content; quality student experience; and quality outcomes. This research focuses on the efficacy of program implementation.

### **Significance of the study**

This interpretive research was undertaken to capture real-world events as they occurred, portraying people, situations, events, and conditions in a contemporary context. Interpretive researchers strive to understand particular phenomena through accessing the meanings and experience participants assign to them.

Interpretive research starts from the position that there is no objective reality which can be discovered by researchers and replicated by others. Rather, each person constructs his or her own reality of a situation or event (Walsham, 2006). This tenet affected this study in two ways. Firstly, it underpinned a determination to collect different versions of events from the people directly involved in physiotherapy clinical education. That is, to collect different versions of reality from individual clients, educators and students.

Secondly, the tenet affected the approach taken to data analysis and the subsequent presentation of findings, as these were designed to bring to light what those individuals reported. In an interpretive study, the researcher needs to avoid any tendency to surmise that there is a universal truth which can be discovered and objectively measured. The researcher, in an interpretive study, is obliged to construct and present his or her own, well-considered analysis of events. That is, through a series of data collection and analytical strategies to develop his or her own version of reality regarding what occurred and then to present what he or she considers to be representative of the phenomenon under exploration which, in this instance, was physiotherapy clinical education.

Alongside this was an exploration of appropriate related documents such as curriculum blueprints, student and educator clinical practice education manuals, and State Registration Board documents for physiotherapists. The research was non-experimental and involved quantitative and qualitative methods. The findings are interpretive descriptions of situations and events involving the client, educator and student in clinical education. The interpretation of events was supported by numerical and categorical data and personal perspectives on clinical education and health care events.

This study builds on previous research in the field of clinical education, but it also breaks new ground by using a combination of tools: survey, observations and interviews, in addition to exploring the views of the three members of the clinical education triad in the same study: the clients, educators, and students. It is the first of its kind to explore:

- actual student and clinical educator dialogue about client care;
- client, educator and student verbal interactions;
- actual real-time, in-situ, clinical education scenarios including interviewing the participants; and
- the clients', educators' and students' views of the same event.

This study was undertaken in two parts: Part One was foundational and included a search of the international literature on physiotherapy educational practice, along with policy documents of physiotherapy practice in Australia. It also included interviews with faculty involved in clinical education and a survey of students and clinical educators. Part Two built on Part one and included an exploration, via observation, of clinical education in real-time, in-situ, clinical education scenarios. The aim was to discover

what the clinical educator can do to ensure how clinical education and care events meet the needs of both the clients and students. To this end, the primary research objective was to investigate the nature of tripartite discussions between the physiotherapy client, educator and student about the client's care, to explore whether the clinical educators take full advantage of the presence of the client as an educational resource.

## **Terminology**

In this section the terminology used throughout this study will be described. In the literature the terms 'patient-centred care', 'patient-centredness', 'client-centred care' and 'client-centredness' are used by different professions but they generally have a similar meaning.

According to Stein-Parbury (2003), in some professions the term 'client' is preferred over the term 'patient' because it is thought that the word 'client' evokes an image of collaboration between the health professional and the recipient of care. That is, the term 'client' evokes an image that the person concerned has a greater sense of agency. The term 'client' is used by the physiotherapy profession in reference to the people they treat (Australian Physiotherapy Council, 2006 and 2009). Therefore, throughout this thesis, all other terms in the literature have been replaced by the term 'client' and/ or 'client-centred care'. The term 'clinical educator' in this text encompasses all other nomenclature describing the various strategies employed in teaching in the clinical setting.

## **Outline of the thesis**

The complete thesis consists of ten chapters. Chapter One introduces the reader to the research and outlines the research scenario. Chapter Two discusses the notion of client-centred care in physiotherapy clinical practices. It begins with a review of the Australian Government's views on health care and contemporary documents related to their particular perceptions about incorporating the clients' perspective in their health care events. This is followed by an overview of tertiary education. Chapter Two also presents the literature concerning client-centred care and what is known about clients' views on being involved in clinical education for health professionals. Additionally, there is a review of the competencies expected of physiotherapy graduates and an analysis of the University's Bachelor of Physiotherapy clinical curriculum and the general aims of clinical education.

Chapter Three centres on an exploration of the literature in clinical education. This includes models and frameworks, the interrelationships within the client, educator and student triad, and the views of clinical educators and students about clinical education. This exploration of the literature is presented in five sections. Section One sets the learning scene. It presents a broad picture of the nature of client, practitioner educator and student communications. This is followed by descriptions of the elements of experiential learning in professional placements, the nature of clinical supervision and the complexity of clinical education. Section Two describes the literature about clinical education and the operational frameworks and processes within it. Section Three explores the variability of the clinical education setting and the aims of clinical education. Section Four investigates clinical education frameworks and processes. Section Five explores the professionals involved in clinical education: what is known about practitioner educators' preparation for their role as well as the students' views on clinical education and what they consider to be the best attributes of clinical educators. The chapter concludes with a summary of the themes identified in the literature that are important to this study and identifies the gaps in the literature to which this study intends to make a contribution.

Chapter Four presents the methodological considerations and the processes that were undertaken to gather and analyse the data. After describing how this study explores clinical education in a new way, my theoretical and epistemological considerations are explained, along with how stakeholders were consulted, the rationale for the choice of data collection tools and ethical considerations. Subsequent to those descriptions, the chapter is styled to present Part One: Stage One, which consists of the interviews with faculty at the chosen university. Part One: Stage Two describes the students' and educators' surveys. This is followed by Part Two: Stage One which constitutes the observations of episodes of clinical education and then Part Two: Stage Two, the subsequent interviews with clients, educators and students involved in the observed events. Following on from there the chapter concludes with a description of how the analysis of the data is collated to answer the research questions.

Chapter Five presents the findings of the two different stages of Part One of the study. Part One: Stage One is the presentation of the findings from the data collected from interviews with the two faculty members which constitute six broad themes: the background to the physiotherapy program; the shortage of placements; the perceptions of practice educators' views; the perceptions of students' concerns; the practice educators' workloads, remunerations and rewards; and the practice educators'

professional development activities in clinical education. Key findings from the interviews are presented.

Following on from there are the results of the students' and educators' survey reports which constitute Stage Two of Part One. This includes a description of the participants in the two surveys and the context of clinical education, the profile of the clinical educators, the students' views on the value of clinical education and what they found difficult. This is followed by a description of the students' views of their clinical educators' teaching characteristics, a general description of the interactions between clients, educators and students and an analysis of the timing and the content of student and educator discussions.

The comparisons between students' and educators' views are presented. Chapter Five concludes by presenting a global view of students' perspectives of clinical education in the four settings. Specifically, their perceptions of: the educators' teaching characteristics, the tenor of the feedback they are given by their clinical educators and their views of the timing and content of educator and student discussions about client care. Key findings from the survey are presented at the end of Chapter Five.

Chapter Six presents the findings gathered in Part Two: Stage One of the study, which was generated by the observation of actual clinical education events. This was undertaken using a purpose built Observation Audit Tool (OAT). Key findings from the OAT are presented at the end of the chapter.

Chapter Seven presents the findings from the interviews with clients, educators and students involved in those events. This qualitative aspect of the research enabled a deeper exploration of the topic under investigation than the previous methods of survey and observation had allowed. The interviews added to the robustness of the study because they went beyond the researcher's immediate viewpoint, which then allowed a higher, wider and deeper perspective of clinical education to be presented. Key findings from the interviews are presented at the end of the Chapter.

Chapters, Five, Six and Seven present the results, findings and preliminary discussions of the data analysis of Parts One and Two of the research, Chapters Eight and Nine contribute more substantially to this developing mosaic by discussing those outcomes in conjunction with the two research questions. Key findings concerning each of the research questions are presented at the end of each respective chapter.



Chapter Ten presents the key findings and the conclusion of this research, which sought to discover what features of the clinical education process epitomize student-centred education and what features epitomize client-centred care; these gaps that had been identified in the literature. In Chapter Ten a 6-Step framework, which emerged from the study and which reflects clinical education situations, is presented. The 6-Step framework shows how the client's voice can be included more in the students' education. Chapter Ten also presents my reflections on the methodologies, the limitations and delimitations of the study and the recommendations for future research which emerged from this research.

### **The boundaries of the study**

In-depth study of clinical education situations in this research involved faculty, clinical educators, students and physiotherapy clients. The study was conducted at one university. The students involved were two cohorts of third and fourth year undergraduate students, their clinical educators and the clients they treated. The students and clinical educators involved in the surveys worked in the private practice, community, or public or private hospital sectors. Observations of clinical education scenarios took place in physiotherapy private practices, public outpatients' clinics, or with private hospital clients.

## **CHAPTER TWO**

# **EXPLORING THE NOTION OF 'CLIENT-CENTRED CARE' IN AUSTRALIAN PHYSIOTHERAPY PRACTICE**

### **Introduction**

Chapter Two provides a context for the research. It begins with an overview of the strategy used to gather and appraise the literature. Then a review of the Australian Government's views on healthcare, in particular its views on incorporating the clients' perspectives related to health care events, is presented. This is followed by a synopsis of the educational paradigms that have influenced professional practice education in the higher education sector. Then the context of physiotherapy education in Australia is explained, including details of the competencies expected of entry-level physiotherapists.

Following on from these themes, the chapter presents the aspirations of clinical education and the concept of client-centredness in health care. Also included is a review of what the literature reports regarding clients' rights and what is known about the nature of interactions and communication between clients and health professional students, and what manner of interaction is regarded as being client-centred.

### **The search strategy**

In order to explain further the methodological considerations and processes that I eventually adopted, the following sections explain my scholarly activities that framed the foundation of this study. Literature between 1990 and April 2009 was collected for the study. Articles dated previously, or ones that were published between the two examination phases of this thesis, were included if they were seminal or deemed important to the topic. They are elaborated upon in Chapter Three. Before beginning the search, strategy criteria were drawn up to enable the information collected to be more precise. The papers included were:

- Theoretical discussions or research reports focusing on clinical education in the health professions (laboratory or academic teaching and learning were not included).
- Reports from any study involving undergraduate or pre-professional health science students, clinical educators and their clients, to ascertain the types of research which had been undertaken before and what information the findings added to the body of knowledge.

References in key articles were followed up. The titles were examined in the first instance and, as a second step the abstracts of those that were considered relevant were reviewed and assessed against the eligibility criteria. The third stage of the scrutiny of the articles involved collecting the full text articles of those which met the inclusion criteria. All references were stored in Endnote, an electronic citation management database. The literature was compiled into categories and sub-categories as appropriate to the research questions.

### **Health care in Australia: The government's views**

The Australian Government Department of Health and Ageing is responsible for national health policies and subsidises health services provided by the Australian states and territories. At the time of writing, the State, Territory and Federal Governments share funding for public hospitals. Health care also takes place in the private sector. Whether they operate in the public or private sectors in Australia, the professionals who work in health care operate within medical and pharmaceutical services, nursing, dental and allied health services, such as physiotherapy. For that reason, physiotherapy students undertake the clinical component of their degree programs in either the public or private sectors where qualified personnel can supervise them.

Bound by their Code of Ethics, physiotherapists may work in the private practice setting, or in educational institutions as educators or researchers (New South Wales Physiotherapy Registration Board, 2010). Physiotherapists do not need a referral from a medical doctor in order to treat a client. As autonomous health professionals, physiotherapists exercise their own professional judgement for care aimed at promoting and maintaining the health of all Australians.

To the consumer of health services, the role of the physiotherapist may at times seem to overlap with other disciplines concerned with disorders of human movement such as occupational therapy, chiropractic and osteopathy. Physiotherapy clinical practices, however, according to Higgs, Refshauge and Ellis (2001), are underpinned by a body of knowledge and an approach to the management of clients that is clearly distinguishable from the others. Treatment and rehabilitative care provided by physiotherapists occurs in the community, acute care settings, hospices, private and public hospitals, nursing homes, rehabilitation centres, residential homes, private offices, practices and clinics, outpatients' clinics, field settings, education and research centres, special schools and psychiatric centres.

Comparable with other Australian states, until June 2010, the statutory authority responsible for the listing of the graduate physiotherapist in New South Wales was the Physiotherapists' Registration Board (NSW, PRB, 2010). Events during March 2008 saw the Council of Australian Governments sign an intergovernmental agreement on the health workforce (Council of Australian Governments, 2008). That event created for the first time a National Registration and Accreditation System for ten (10) health professions, one of which was physiotherapy. Such legislation enabled health practitioners to work in any of the Australian states or territories. It also facilitated the provision of high quality education and health care for all Australians. Each Physiotherapy State Registration Board is governed by one united Physiotherapy Registration Board. It can be expected that their respective documentation will continue to reflect the intentions of the documents referred to in this thesis.

According to the NSW PRB (2010) there are reportedly over 6,000 registered physiotherapists in NSW, which constitutes about one percent of the between six to seven million people living in NSW. The publications relating to the Board describe their functions as follows:

- To protect public health and safety;
- To maintain and promote professional standards of physiotherapy practice in New South Wales;
- To register physiotherapists;
- To advise the Minister on matters relating to the standards of physiotherapy practice; and
- To distribute information pertaining to the *Physiotherapists Act 2005* and the regulations to physiotherapists, consumers and other interested persons.

Further, the NSW PRB document entitled 'Ten Rights of People Receiving Physiotherapy and Ten Responsibilities of People Receiving Physiotherapy' (NSW Registration Board: Ten Rights, 2010) provides a list of specific rights for people who consult physiotherapists. Clients are, in particular, to be:

1. treated with respect;
2. free from discrimination, coercion, harassment and exploitation;
3. able to preserve their dignity and independence;
4. provided with services of an appropriate standard;
5. provided with effective communication;
6. fully informed;
7. able to make an informed choice and to be asked to give informed consent;
8. able to have appropriate support;
9. the subject of medical research or teaching only with informed consent; and
10. able to make a complaint.

On the other hand, the ten responsibilities of people who consult physiotherapists are to interact in a way that demonstrates consideration of the other and thus to:

1. treat the physiotherapist with respect and courtesy;
2. ensure that they not be discriminatory in their dealings with a physiotherapist;
3. respect the right to privacy and dignity of other clients and the physiotherapist;
4. observe policies on the payment of accounts and appointments;
5. comply with the agreed treatment and follow advice or instructions given;
6. observe the rules and policies of the physiotherapy department or practice;
7. communicate their concerns and needs effectively and in a timely manner;
8. make an informed decision on the treatment for themselves;
9. inform the physiotherapists of the effects of treatment whether it was negative or positive; and
10. make a complaint. When complaint is made, people have the responsibility to ensure that their complaint is not petty or simply for the purpose of troublemaking.

The above mentioned documents, together with the Policy on Professional Conduct (NSW, PRB, 2010) explain the parameters of clinical practice of a physiotherapist and the general tenor of what is expected during a graduate physiotherapist's and client's interaction. As far as the education of new physiotherapists is concerned, the domain of physiotherapy education comes under the watchful eye of the Australian Physiotherapy Council (APC). It is they who espouse compliance with the set of competencies for entry-level physiotherapists and the way in which these must be achieved at the various tertiary education institutions. These competencies are explained in further detail later in this chapter. However, they are mentioned here because it would generally be expected that during clinical education, as students develop the required competencies, they would also become increasingly familiar with the parameters of practices and what they, as registered practitioners, can expect from members of the public who seek consultation or care from them. The clients' rights are also protected by other national legislation which is explained in the following section.

### **Australian health care legislation and client-centred care**

In 2008, the Australian Commission on Safety and Quality in Healthcare (ACSQH) outlined in the Australian Charter of Healthcare Rights what clients can expect from the health system. Together with the Australian National Patient Safety Education Framework (ANPSEF), which comes under the Australian Council for Safety and Quality in Health Care (ACSQHC, 2005), the policies include descriptions of how health practitioners ought to ensure the clients' right to receive safe, high quality care and to be shown respect, to be informed about services offered to them, their treatment options and costs. The publications promote the clients' entitlement to receive timely

and appropriate communication about their health care and the right to be included in decisions and choices, make comment on their care and to have their concerns addressed.

There are similarities in the issues identified as important by ACSQH, the ANPSEF, the NSW PRB and the competencies the APC (2009) expects of physiotherapists. On one hand, the APC provides a framework for education providers and, on the other hand, the NSW PRB provides a framework for accredited practitioners. The ACSQH and the ANPSEF provide direction for health care clients and practitioners.

At the heart of the Australian Charter of Healthcare Rights, by ACSQH, (2008) is the notion of client-centred care. While the Charter does not provide detailed information about how it should be applied, it does articulate eight key rights for all clients who seek health care *anywhere* in Australia. The eight elements concern access, respect, safety, communication, information, participation, privacy and redress. The issues of participation have direct relevance to the management of clinical education and are explored in this study. The ACSQH (2008, p.2) states:

***Participation:*** *A client has a right to be included in decisions and choices about care. Participation by patients in their health care is encouraged by engaging the patient or consumer and/or carers in discussions about treatment options. This includes informing patients and consumers of their right to refuse or withdraw consent at any time and inviting patients and consumers to consent for care or treatment that is experimental or part of teaching or research.*

There is no indication in any of the aforementioned documents that the clients' rights are waived because a student is involved in their care. Clearly then, these policies have an effect on clinical education activities. Just as the client who attends physiotherapy clinics where students are working have their rights, so too do the students have their own needs, rights and values related to their learning. The clinical educators' remit is to balance these. It is the legal aspect of 'vicarious liability' that is pertinent here.

In summary, the aforementioned discussion shows without doubt that the NSW PRB (2010) and the APC (2006; 2009) require the graduate physiotherapist to be able to demonstrate a number of competencies, which include a focus on the provision of client-centred therapeutic care where the client is a partner in the health care rather than a service recipient. Further, the services to be provided are tailored to the needs

of the clients. It is also abundantly clear that client-centredness is the driver of the national health care agenda and related legislation. Moreover, in physiotherapy undergraduate education, the *raison d'être*, the key focus of all activities, is on the student learning the skills to meet, as far as possible, the clients' health care needs within the parameters of physiotherapy practice. Herein lie the tensions that physiotherapy clinical educators face when they undertake to educate students enrolled in physiotherapy courses. In addition to the physiotherapy clinical educators' obligation to develop the students' clinical skills so they become competent physiotherapists, they are also required to assume professional responsibility for the wellbeing of the clients in whose health care students are involved. Managing such complexity is demanding and requires understanding of health as well as education paradigms.

### **Higher education in the professional practice setting**

Australian higher education, or tertiary education, is non-compulsory. Post-secondary level students vie for places in various universities or colleges so they can acquire the knowledge and skills necessary for them to enter a specific discipline or profession. Moreover, typically, health science programs take place within both campus and professional settings. In either setting, education involves the discovery of knowledge and the passing of wisdom from one who has an appreciation of that wisdom and knowledge to one who seeks to learn. Consequently, a number of theories underpin the structure of education in professional practice settings. The following historical outline of these theories illustrates their focus and when they were first introduced in the literature. They are:

- **Developmental Theory** (Piaget, 1953). In Piaget's theory, learning is viewed as a process of building new ideas onto existing ideas and knowledge, where learning is regarded as a social process involving the learner in free exploration within a given framework. Also known as constructivism theory which advocates for learners discussing their views with others.
- **Discovery Learning Theory** (Bruner, 1961). Bruner's theory is a method of inquiry-based instruction which is underpinned by the belief that it is best for learners to discover facts and relationships for themselves.
- **Adult Learning Theory** (Knowles, Elwood, Swanson, 1978). Knowles et al's. theory posits that adults bring experience to the learning setting which educators can use as a learning resource for all students. Further, adult learners are known to want input into how the learning activities are structured, and they learn better when they see the relationship between the activity and the desired learning outcome.

- **Social Development Theory** (Vygotsky, 1978). Vygotsky's theory argues that social interaction is preceded by the development of consciousness. Also, cognition is the end product of socialisation and social behaviour. Further, a learner's ability to solve problems independently can be limited and can be enhanced by a collaborator who scaffolds the learner's thinking and activities, thereby nudging the learner forward in their thinking and understanding. The author identified the 'teachable moments' which, when capitalised upon, allow the learner to think further through or more broadly about the problem within the appropriate social environment.
- **Experiential Learning Theory** (Kolb, 1984). Kolb's theory of learning from experience proposes the existence of a four stage cyclical learning. The four stages are said to provide a holistic perspective combining experience, perception, cognition and behaviour. As this theory relates directly to experience (practice education), and is utilised in this thesis, further explanation of Kolb's theory is given in Chapter Three.
- **Social Learning Theory** (Bandura, 1986). Bandura's theory posits that people learn from each other via observation, imitation and modelling. That is, by the very act of socialising in a culture people learn the customs, social and political practices, morals and ethics or a particular culture.
- **Situated Learning Theory** (Lave and Wenger, 1991). Lave and Wegner's theory posits learning as unintentional and situated within authentic activity, context and culture, where social interaction and collaboration are essential components. Their theory advocates for learners to become involved in authentic learning activities with people involved in their discipline.
- **Communities of Practice Theory** (Wenger, 1998). Wenger's theory is defined as a group of like-minded individuals who embody certain beliefs, behaviours and practices. In a learning situation, novices typically move from the periphery of the community to the centre and become more actively engaged and eventually assume the role of expert.

Although the concept is mainly attributed to Piaget, each of the theoretical concepts outlined above advocate constructivism as an underpinning concept in structured learning communities. An additional element comes from reflection. Dewey (1859–1952) advocated that learning takes place when learners are presented with problems to solve in the bona fide place of work related to the specific discipline (Dewey, 1910; Hawtrex, 2007; Shephard and Jensen, 1997). Dewey believed in encouraging reflective thinking as a means of developing thought: the learner's reflective thinking passes through all of the possible consequences of the elements in a problem and, in such a way, builds his or her knowledge. Dewey's postulation that learning occurs from actively solving meaningful problems explains the accumulation of experience and thus greater wisdom of experienced professionals. Thus, problem-solving theory is framed around the learner's organisation of thoughts and patterns learnt through problem-formulation, hypothesis development and testing and reflecting on these elements.



Dewey's work is significant to this study because of the need to incorporate a strong culture of reflection on practice, where students' preconceived ideas are checked against the reality of clinical practice.

The aforementioned view accords with Davis (2000) who said, in tertiary education, the development of professional attributes of students is encouraged in an environment based on the principles of constructivism which has as 'a priori' assumption, that individuals do not learn by passive engagement with ideas and symbols, or responses to stimuli. Rather, they learn best from actively constructing knowledge and understanding by *participating in activities*. Clearly great value has been placed, in the education sphere, on the socialisation of the learner in an authentic context of practice.

One of the conventions of physiotherapy education is that students ought to be engaged in meaningful activities in the authentic practice setting, so they experience the ways of the profession. Recently, Ajjawi and Higgs (2008) reported that physiotherapists learn to reason in the context of daily practice. Clinical reasoning development was a product of the learners' immersion in the variety of situations encountered in authentic practice settings where situations were challenging and complex. Ajjawi and Higgs (2008, p.146) said:

*Professional socialisation is based on learning of the profession's socially constructed norms, values and beliefs through interaction within workplace and cultural situations.*

In a recent study of the impact of the professional community on learning from the students' point of view Skøien, Vågstøl and Raaheim (2009) reported on the descriptors students used to describe their experience. A positive experience in physiotherapy socialisation was had when the students felt welcomed and included and seen as a resource. Also, students appreciated being given an appropriate amount of time and space to manage their clinical tasks and, when they were able to, access the necessary equipment to complete their tasks. Moreover, 'the students emphasised the importance of the patient encounter' (Skøien et al., 2009, p. 273). Further, having these encounters developed their ability to interact in a professional way with clients, which taught students about their own boundaries, therapeutic abilities and possibilities. Students want to learn how to develop clients' confidence and trust. Students also appreciate being engaged in a placement which includes their peers so they can share their learning experiences.

Typically, whether in the on-campus or professional placement setting, such as the clinical practicum, two operational approaches to managing student learning are broadly accepted across the tertiary education sector. These are educator-centred learning and student-centred learning. Educator-centred learning places the educator in the centre of the learning process, and is a strategy in which the educator adopts the position of 'expert' in the subject matter, one who transmits knowledge and understanding to the student who, more or less, takes a passive role. In contrast, more closely aligned to the two-way dialogue and principles of constructivism outlined earlier in this chapter, is student-centred learning, which requires the educator to facilitate the students' engagement with the learning activity rather than to 'educate' them. Teaching in a student-centred way may not always be an easy approach to establish. Sometimes, even with the best of intentions, it is difficult for educators to alter the attitude of a more passive student so they become more interactive. Sometimes a student who thinks they know it all can interfere with established ways of working within a team. If students are not inclined to fully immerse themselves in any workplace context, to establish positive collegial relationships with others, this may prevent them from taking advantage of the opportunity to socialise in their chosen disciplinary workplace. It can be a difficult situation for an educator to manage.

What is more important as far as clinical education is concerned is the imperative to be mindful, in the authentic workplace setting in which the student is sent to socialise, that a third entity exists: the client. The client or customer, depending on the context of professional practice, often seems to be overlooked in the theories and explanations of educational frameworks. They seem almost to be in the background, as silent partners. Yet it is the client, as a beneficiary of health care, who creates a mechanism by which the client–educator–student triad brings the students' learning from the academic and simulated settings to the actual practice setting. For that reason, the focus of this study is on the educator's ability to make the most of all learning opportunities that include actual clients, in order to advance the student's clinical knowledge, skills and dispositions.

Adding another element to professional practice learning, Jones, Grimmer, Edwards, Higgs, and Trede (2006) asserted that in order to meet the challenges of the physiotherapy profession, evidence-based practice and research findings must also be incorporated into students' clinical reasoning models. In order to practise client-centred care, the clinicians need good conceptual understandings of, not only health, pain and disability, along with their highly developed critical and reflective skills, but also

management skills. The complexity of developing these skills in students can seem overwhelming. I would further assert that the practitioner/educator needs a thorough understanding of some of the educational theories which were outlined above.

As a researcher I felt it was crucial to establish whether the students make full use of the client as a learning resource, by taking opportunities to interact with them. In this thesis, I explore the clients' role in the clinical education process and the contribution the client makes to the students' construction of knowledge.

### **Australian physiotherapy education**

As outlined in an earlier section, the listing of professionally qualified physiotherapists is maintained by the State Registration Boards. According to the Australian Graduate Information Service (Australian Graduate, 2010) and the writings of Chipchase, Galle, Jull, McMeeken, Refshuage, Nayler and Wright (2006), physiotherapy education at an undergraduate and master's level (Graduate Entry), is offered at fifteen (15) tertiary level institutions across New South Wales, Victoria, South Australia, Queensland and Western Australia. Enrolled students and graduates from accredited programs are eligible to join the Australian Physiotherapy Association (APA) (2010). Chipchase et al. (2006, p.6) stated:

*Physiotherapy in Australia has become a strong academic and clinical discipline. Several Australian universities have world renowned research programs whose outcomes are driving teaching and learning to ensure graduates are skilled in contemporary evidence-based clinical practices.*

The typical four-year undergraduate physiotherapy course includes a minimum of 1,000 hours of clinical education during which students attend various clinical sites to develop their skills. The clinical education component of the physiotherapy program commences in the first year. Students take placements at different health care centres in the public and private sectors such as: acute hospitals, general practice, private practice, community health centres or rehabilitation hospitals and neurological wards (APA, 2010).

Because physiotherapy graduates may work as members of multi-professional health care teams in the types of settings explained above, student contact with clients takes place at a variety of venues. To do so ensures that the level of student progression throughout the university course is harmonious with the planned curriculum, which is

designed so students attain the desired competencies. These are explained in the next section.

### **The competencies expected of entry level physiotherapists**

The APC (2009) stated that physiotherapy practice is informed by research, general scientific literature and the physiotherapists' use of evidence-based practice, clinical reasoning and processes in order to perform physiotherapy assessment and treatment, prevention or rehabilitation of an injury, disease or another condition of health.

The APC affirmed that through a diversity of clinical specialities, physiotherapy services are used in health organisations, private practices, schools, workplaces and community groups to prevent, diagnose and provide therapeutic management of individuals and groups who suffer from pain and disorders of movement or function. They advocated that physiotherapists must be prepared to deal with situations which may be both theoretically and operationally different for people from different backgrounds.

Furthermore, different people will have their own and sometimes unique perspectives of healing and care, attitudes to disability and rehabilitation, illness behaviour, preferred practitioner-gender, modesty, and attitudes to dressing and undressing. What is more, different people's perceptions of death and the rituals surrounding death in different cultures, community, discharge planning, and extended family, all affect the way physiotherapists undertake tasks and activities.

The APC is responsible for the dissemination of the Australian Standards for Physiotherapy. Nine standards are expected and they are explained below.

The physiotherapist is required to be able to:

- demonstrate professional behaviour appropriate to physiotherapy;
- communicate effectively;
- access, interpret and apply information to continually improve practice;
- assess the client;
- interpret and analyse the assessment findings;
- develop a safe and effective physiotherapy intervention plan;
- implement safe and effective physiotherapy intervention(s);
- evaluate the effectiveness and the efficiency of the physiotherapy intervention(s); and
- operate effectively across a range of settings.

Moreover, the APC (2006, p.9.) stated:

*The practice of physiotherapy incorporates assessment, interpretation and analysis of findings, planning, intervention and evaluation of pain, physical dysfunction and movement disorders. Physiotherapy services will be determined by a range of factors, including the profile of the client, setting and the nature of the clinical presentation.*

Clearly, modern physiotherapists are expected to be competent in a diverse array of skills. For that reason, physiotherapy academics have an obligation to design a suitable curriculum for undergraduate students to ensure the necessary competencies are developed. Central to this is the notion of client-centred care. Potter, Gordon and Hamer (2003) said clinical educators who do seek to demonstrate client-centredness through shared decision-making reinforce the value physiotherapists place on the client's contribution to a successful clinical outcome. It can be expected such an imperative is embedded in the undergraduate curriculum.

### **An overview of the Bachelor of Physiotherapy Program**

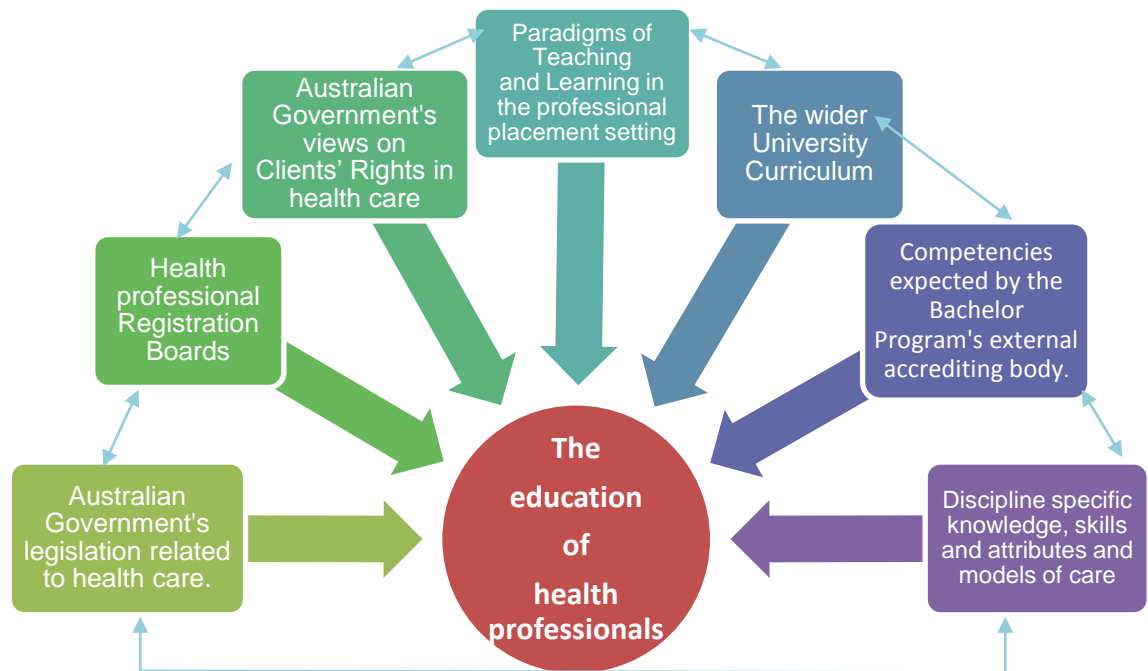
This study focuses on senior students: third and fourth year students who were nearer to graduation and who have had experience in clinical education prior to the situations reviewed as part of this study. Although the expectation of the students is different across these two years, the pattern of their clinical component is essentially the same. In the fourth year of the program at the university where this study took place there are two clinical practicums: one mid-year and the second at the end of the year. Each practicum has an assessment component typically undertaken during the final week. Each assessment task is worth 40% of the grade for the course. The other 20% of the assessment is undertaken during the university exam period. Each assessment item must be passed in order to pass the overall clinical component of the program. Attendance at clinical education placements is compulsory.

In physiotherapy education it is traditional for senior students, those in their fourth year, to have an increasing level of responsibility for a consultation with a client, with the clinical educator providing decreasing support as the students' competence increases. Such an approach is employed to enable a reduction of the gap between being a student and the work they will undertake, and the responsibilities they will assume in their postgraduate working lives. As a student they increasingly become semi-autonomous practitioners. In the early stages students require closer supervision and stronger scaffolding and, thus, usually co-treat clients with their educator.

At the university where this study took place, the clinical education sites have an agreement to manage student education. Clinical educators are not accredited by the university. They are chosen because they are qualified physiotherapists. The educators need to appreciate that they are assisting with development of the student's nine capabilities required by the APC.

To summarise and to give some contextualisation, Figure 1, presents an impression of some of the variables which make up the trellis between health legislation and education. Not one of the factors is mutually exclusive. The Australian Government's legislation impacts on the various health professional registration boards and also on the legislation related to citizens' rights related to the health care they receive. The different educational paradigms will impact on how the university curriculum as a whole is organised. Within each university the individual curriculum, such as a Bachelor of Physiotherapy Program, is overseen by the external accreditors from the professional association and each of these aspects are developed from the discipline specific skill set and paradigm of professional practice.

In Figure 1, each of the seven variables discussed in this section are represented to show how they impact on the education of health professionals. Cooper, Orrell and Bowden (2003) remind us that different stakeholders in any workplace education have different expectations. For example, students can be expected to gain an appreciation of the health care sector and organisations, culture and work in general, whereas employers are expected to make a contribution to the students' relevant skill development. Students expect to practise their skills and academics expect their students to experience the theory–practice nexus to explore how theoretical knowledge is applied in the professional workplace setting.



Just as professional regulatory bodies expect the professional codes and standards to be upheld, the university expects the placement to provide quality monitoring and appropriate duty of care for students. Figure 1 demonstrates what health care and educational policies and processes and educational theories and aspirations underpin the focus of this research: clinical education events which are simultaneously real-time, in-situ, health care events.

## The broad aims of clinical education

Students' workplace experience or experiential learning activities are typically designed to develop their capacity to contribute to the goals and activities within the workplace relative to their discipline. The assumption is, professional placement provides students with opportunities to experience life in the workplace-natural setting with the notion that such an experience will promote knowledge development (Fry, Ketteridge and Marshall, 2005; Winch and Gingell, 2005). In clinical education students come to understand the discipline-specific, contextually related ideas and concepts, they learn to relate the significance of their own experience, within the traditional disciplinary practices (Fry, et al., 2005).

Clinical practice is a major and critically important experiential learning opportunity. The presence of the client in clinical placements adds a dimension to the students' education that is difficult to repeat in other learning environments. The distinguishing features of workplace learning situations such as clinical education are that they are inherently variable, unpredictable, sometimes brief, high risk learning events which are not replicable (Cooper et al, 2003). Complexity aside, Dunn and Saintonge (1997) stated that, managed well, each client–educator–student encounter allows the student to capitalise on the rich potential for learning therein. How best to capitalise on the learning potential of these situations is the central theme within the current study.

Ways of working during a clinical placement were captured by Kaufman, Mann and Jennett (2000) who identified that clinical education experiences are exemplars of apprenticeships, internships or practicums, mentoring, clinical supervision, on-the-job training, clinics, and case study research. With due acknowledgement of the different ways students and educators might interact, the expectation is the same. It is within such a dynamic environment that the educators' activities are expected to be both student-centred and client-centred. The reality can be quite different. Bleakley and Bligh (2008) proposed that, while clinical educators promote the familiar student-centred learning approach, the model requires attention to the main concern, that is, to help in the diagnosis and management of clients' symptoms. The authors argue for a paradigm shift, centring education on client–student dialogue, with the practitioner/educator as an expert support person, a co-producer of knowledge. Irrespective of the decade in which we currently work, the challenges associated with clinical education continue to be comparable.

The challenge is captured in the writings of Irby (1986, p.35) and is clearly as relevant to physiotherapy education today.

Irby said:

*The challenge of clinical teaching [education] is to transform novice medical [health professional] students into practising physicians, and any such plan for creating a process to enable transformation is designed with the aim of developing the students' skills in collecting data, interpreting and synthesising findings, critically evaluating the effect of actions taken, performing procedures skilfully, and relating to patients in an ethical and caring manner.*

Higgs, Glendenning, Dunsford and Panter (1991), Higgs and Edwards (1999) expressed similar ideas, that clinical education is chiefly concerned with developing the student's clinical reasoning skills, problem-solving and critical appraisal skills. According to Higgs (1992) in each clinical education-learning setting the student must



learn to appreciate what it is to be a health care provider and to evaluate their own readiness to be an autonomous health professional. To do so ensure graduates are able to take their place in the wider health professional community.

The few studies of students' views on clinical education have focused on exploring the *clinical education environment* (CLE). For example, Dunn and Hansford (1997) asked students to comment on staff–student relationships, nurse manager commitment, client relationships, the students' satisfaction and the clinical hierarchy and rituals. Again in nursing, Chan (2001; 2002; 2003) used the Clinical Learning Environment Inventory (CLEI), a tool based on the theoretical framework in psychosocial education, to assess students' perceptions of the clinical learning environment. The CLEI explored six areas: *Individualization* — extent to which student is allowed to make decisions and is treated differentially according to ability or interest; *Innovation* — extent to which clinical educator plans new, interesting and productive ward experiences, teaching techniques, learning activities and client allocations; *Satisfaction* — extent of enjoyment of clinical placements; *Involvement* — extent to which students participate; *Personalization* — emphasis on opportunities for individual student to interact with clinical educator and on concern for student's personal welfare; and *Task orientation* — extent to which ward activities are clear and well organised. In 2007, Chan extended this research again using the CLEI. However, on the latter occasion, they had students complete two forms, one which asked about the actual CLE and the second which asked how they preferred the CLE to be, which to my mind, is a critical aspect of evaluation. To ask what currently takes place and then to ask what a respondent would like to see happen, serves to highlight any gap that exists.

Generally speaking, contemporary physiotherapy clinical practices and the clinical educators' knowledge of those practices add to their accumulated clinical wisdom and drive the education processes. While the clinical educator may plan activities on a particular topic, it is the client who remains the central constituent of clinical education: clinical education activities and processes pivot around the client's health care scenario. Indisputably, the client becomes the educational and learning resource as well as the recipient of care. Each client the student meets becomes, in a sense, their educator, textbook and examination, all at the same time.

To recapitulate, this study intends to explore how the educators balance their dual tensions in monitoring and managing the student's progress in their knowledge and skill development, together with the client's rights and needs in health care. As a

researcher I was curious to know how the clinical educators manage the clients' participation. Further, I wanted to know how clients participate in student education and what the student gains from being exposed to learning situations involving bona fide clients with genuine health concerns.

### **The universal notion of client-centred care**

Generally speaking there are two broad models of health care. The 'biomedical' model focuses on the physical, pathophysiological and physiological processes of the disease and, subsequently, on the diagnosis and treatment of the disease. In contrast, the 'biopsychosocial' model of health care considers the biological, psychological and social factors that play a role in health or illness. Engle (1978, p.171) said: 'The biomedical model is disease-oriented, not client-oriented. To be client-oriented the model must include psychosocial dimensions'. To explain further, even though the forerunner of the concept of client-centredness was Carl Rogers (1957), Engle had much to contribute. Engle (1978) claimed the biopsychosocial model of health care is concerned with how the clients' feel, function and relate to the world in the course of their health concerns. In its wider application in the health sciences, client-centred care is a style of care in which the health professional focuses more on the 'individual with a disorder' than on their actual disorder.

McCormack (2003) and McCormack and Corner (2003) reported that many clients want to exercise their rights to self-determination in relation to decisions about their health care. Additionally, Delany (2007) told us the practice of client-centredness is founded on the philosophical theory of client autonomy. Even earlier, Williams and Grant (1998) explained the historical perspective when they suggested that, prior to the concept of client-centredness coming to the fore, the health care sector functioned in a manner directed more at achieving clinical outcomes than exploring the users' views and wishes, which at that time were not considered essential in achieving health gains. Nearly a decade later Black (2005) took a wider and less paternalistic view when remarking that the notion of client-centred care is a response to the paradigm shift experienced in recent decades in Western society where clients are generally more educated and are no longer satisfied to be passive recipients of care.

Signalling another paradigm swing, it was Dalley (1999) who suggested that in the future there may be a shift in how health care outcomes are measured. How therapy is

evaluated ought to give consideration to the client-centred aspects as well as identifying what it is the therapeutic intervention actually achieved for the client. Nevertheless, irrespective of how outcomes of therapeutic care are specifically evaluated, literature in health professional education is replete with descriptors of what constitutes client-centred care, what client-centred care 'looks like' and how client-centred care ought to be applied. For example, Slater (2006) suggested that the attributes of client-centred care include due consideration of the client first and foremost. Further, that recognizing the client is a 'person' enabled the health carer to provide individualized care by acknowledging the embodiment of the client's lived world. By adopting such an attitude, a health care provider has the capacity to contextualize the client's past and current health issues, which positions them better to develop a management plan that matches the client's mental, emotional, social and physical needs.

Where health practitioners' views and their application of client-centredness are concerned, Black (2005) suggested evidence of a health professional's intent to be client-centred is apparent in the tenor of the communication style they adopt. In a client-centred consultation there will be a phase of getting to know the client, information sharing, encouragement towards client autonomy, collaboration and an inclusion of the client in decision-making. The tone of ANPSEF (ACSQHC) (2005) and other government documents completely reflect the view that clients want to have a say about the management of their health concern. It has been unquestionably established in the *Physiotherapy Act 2005* (NSW RB, 2010) and by the documentation from the APC (2006 and 2009), as well as by authors such as Edwards, Jones, Higgs, Trede and Jensen (2004) that in the domains of physiotherapy client-centredness *vis a vis* client-centred clinical reasoning and decision-making are issues of continuing importance.

Being client-centred does not always mean the client takes an equal part or is involved at all in shared decision making about their health care. Some people want the health professional to decide for them and when the health professional does so they are, in such instances, being client-centred. For example, Levinson, Kao, Kuby and Thisted (2005) reported on a large population-based survey from in the United States (n=2,765) which found that even though 96% of participants preferred to be offered choices and to be asked their opinion, only 52% preferred to make the final decision. The others preferred to rely on the physician's knowledge. It can be expected that reality lies somewhere in between. The notion is supported by Edwards et al., (2004)

and Thompson (2007) who both claimed that a quantity of clients want, on *some* occasions, but *not all* occasions, to participate in decisions about their health care. As far as the physiotherapy profession is concerned, it has been explained previously that the notion of client-centred care underpins the clinical practices of physiotherapists and, therefore, it can be expected to impact on physiotherapy clinical education. Given the small amount of literature about the application of client-centred care in clinical education it is difficult to find precedents for comparison.

In one of the few studies undertaken in this area, four categories of ways of experiencing interaction within a patient encounter were described by Dahlgren (1998), who studied physiotherapy students' client-centredness. They were: Mutuality, Technicalism, Authority *and* Juxtaposition Mutuality *and* Technicalism. The study suggests that after eighteen months of professional practice the Mutuality category dominated: that is, *'the therapists' made a conscious effort to establish a relationship with the client to ensure both parties agreed on what the problem and goals of the treatment were'* (Dahlgren, 1998, p. 262).

In addition, Haidet, Dains, Paterniti, Hechtel, Chang, Tseng et al., (2002) explored medical students' attitudes to client-centred care and found that, later on in their training, they have a more doctor-centred and paternalistic attitude than a client-centred attitude. Whereas, Haidet, Kelly, Bentley, Blatt, Chou, Fortin et al., (2006) explored the client-centred characteristics of the learning environment by surveying the client-centred behaviours of students from different medical schools. They found statistically significant differences between schools among such issues as role modelling, student experience and support for student behaviours. How well client-centred care is modelled during physiotherapy clinical education is unknown.

It is essential to discover, as this study attempts to do, whether the emphasis on educational activities is oriented around clients' rights, particularly their right to be included in decision-making to their individual satisfaction. One pivotal question is: does a well managed clinical education process enhance the client's sense of client-centred care?

### **Clients' rights related to their health care**

Apart from the right to be included in decisions about health care, it has been confirmed by the aforementioned that one of the rights of people seeking health care is

that they be entitled to give their consent to treatment offered to them. Weir (2000) said that informed consent to treatment can be given either in writing, verbally, or it can be implied. In some cases written explanation is offered to the client and the client's written consent is given to those procedures, whereas verbal consent means a verbal explanation of the procedure is offered, and verbal consent is given by the client. Implied consent is indicated when a description of the intended procedure is given to the client and the clients place themselves on the treatment couch.

Consent to what, when and for how long are other important questions? Whether in relation to education or not, the longevity of the consent is another significant and yet under explored issue. Kuan's (2007) study, exploring teaching in an emergency department prior to the client receiving treatment, determined that over half the clients had not been asked to give their verbal consent for medical students to be involved in their care. Confirming Jones et al, (1996) the findings from Kuan's study identified that clients tend to vary their consent depending on the severity of their clinical condition, but they were satisfied that the presence of a student does not alter their care. Kuan suggested clients like to know if their consent can be revoked. Also, Kinsman (2000, p. 245) suggested 'an ideal would be one in which, in the initial instance, a client's consent should be obtained, with renewal at regular intervals'.

Taking into consideration the fact that the NSW PRB (2010) says the person consulting the physiotherapist must be advised they have the right to 'choose whether or not to have a physiotherapy student treat you or be part of student education' (NSW PRB: Ten Rights, 2010, p.3), very little is known about how the same is managed on a day to day basis. There is negligible literature concerning the client's informed consent to have health professional students practise their skills on them. Although, in one paper highlighting the importance of seeking consent for student participation and proposing a process to attain the same, Howe and Anderson (2003) stated that in clinical education one of the central issues of importance is that the client be given enough time to deliberate over the request, to let students participate in their consultation.

On the whole, the exploration of client-centredness in undergraduate health professional education is an issue which is just beginning to appear in the literature. The literature that exists reports on the perspective of client involvement in medical education and is included here to provide a backdrop. It appears the extent to which clients are asked to give consent to care by students is largely unknown. However, one study provides some insight. Jones et al., (1996) reported nearly 98% of the clients

(n=84) in their study had been asked to give informed consent to the student being present during a consultation with their doctor.

The age of the client may have an impact on their level of acceptance of students' involvement. Lynöe et al., (1998) studied the views of clients (n=582) from gynaecology, psychiatry, internal medicine, paediatrics, urology and health care centres with general practitioners. Seventy one percent had experience of participating in clinical training of medical students and 41% of those had estimated they had once, or several times, participated *without being informed*. The authors found elderly clients tended to accept participation more often without being informed.

The legal perspective, however, is clear. Kapp said repeatedly (1983; 1984; 1984a) that failure to clearly inform a client that the person with whom the client is asked to deal is a student may open the student and his supervisors to possible lawsuits alleging claims of fraud, deceit, misrepresentation, invasion of privacy, breach of confidentiality, and lack of informed consent.

Unquestionably, clients have a right to know who is involved in their health care and this knowing affects their actions and it can be expected their reasons for participating are highly unpredictable. Chipp et al. (2004) and Thomas et al. (1999) suggested that when clients are informed about the students' status and activities, they are more likely to participate in their education. Additionally, Thomas et al. (1999) reported clients are more likely to give informed consent to student involvement in their care if they perceive the student well, know their level of proficiency, their gender and the procedures involved. Also, Chipp et al. (2004) found clients do not necessarily have a preference regarding gender but some might prefer a student of the same gender. Chipp et al. reported clients' participation in the education of health professional students may very much depend on the nature of the clients' perception of the students, the nature of the procedure, the clients' state of health, their personalities and belief systems.

When clients are informed of the students' level of education it appears to affect their level of participation. Santen, Hemphill, Spanier and Fletcher (2005) explored whether clients, when informed of the inexperience of a medical student, would still consent to the procedure. They found clients thought they should be told if a student was performing his or her first procedure on them. Most of the clients said they would allow

medical students to perform minor procedures, even when informed of the student's inexperience.

It seems that, apart from being given time to consider their position, how consent is sought for student involvement in health care, can also have an impact on clients' views. For example, Westberg, Duchek, Sandlund and Lynöe (2004) compared the views of one group (experimental) against another (control) group of clients involved in urology surgery. They found information given to clients in advance about the students' participation does not have a negative influence on the clients' inclination to participate. In a later study Westberg, Sandlund and Lynöe (2005) reported that written information about the medical students' involvement, given to clients' before the event, seems to prevent them from feeling forced to participate.

In complete contrast to the notion clients should be asked to give consent to student involvement in their care is the question of whether or not clients should be given a choice at all. Bourke and Russell (2002) reported, in their two part study, that doctors thought clients should not be offered a choice because it would have an adverse affect on the availability of clients for students to see and, hence, on training and skill acquisition. They felt some patients required some level of coercion.

The clients in Bourke and Russell's study were initially concerned about the way they were asked about having a student present. They preferred not to be asked in front of the student and so not to be put under pressure to agree. They wanted to be able to talk with the student alone, prior to the consultation, as they felt that would help build trust. They did not want students present when they needed to discuss very personal issues. The study found previous good experiences with students were a predictor of giving consent to their presence in the future. In the second phase of Bourke and Russell's study, during a second meeting three months after the initial meeting, the clients were reported to be more adamant they had the right to choose who is present during a consultation concerning their own health. They recommended that clients of health care services be provided with the information about the benefits of having a student present, the process of the student being present, and the level of supervision. At the second meeting, the doctors' group recommended doctors and other health professionals approach the client for consent without the student being present or in earshot, and explain to the client the importance of having a student present, using the word 'trainee' rather than student.

As can be seen, there are many issues surrounding a client's informed consent for health care service and each client can be expected to have their own views and preferences. It is arguable that certain attitudes and procedures in clinical education situations could be considered as proof of client-centredness. Asking the client to give their informed consent to student involvement in their health care event is an indicator of the client-centred stance of the clinical educator, the student and the clinic.

### **Clients' views on being involved in clinical education**

The affect of the students' presence on a consultation has been explored by Cooke, Galasko, Ramrakha, Richards, Rose and Watkins (1996) who explored, immediately after a consultation, the clients' reactions to the presence of medical students during their consultations with their general practitioner. They found that on very few occasions the clients regarded the students' presence as having a negative effect on the consultation. They concluded that a significant majority of the clients interviewed thought the presence of the student improved the consultation. The Cooke et al. study sought clients' responses to prescribed questions, they did not direct the questions to the events of the specific consultation and they did not explore if the clients felt their needs were met.

In medicine, Jones, Oswald, Date and Hinds (1996) sought the views of clients towards community based medical teaching using a questionnaire which was posted to clients some time after their consultation. The clients, in the main, had a positive attitude towards allowing students to be involved in their health care. The clients felt that students all have to learn somehow and were pleased to be of assistance if they could. It was found that only a handful of clients had a caveat on their participation and this was related to whether or not they perceived their condition to be more serious than a student could manage or if they felt they wanted to have a private consultation with their practitioner because they had 'intimate' or 'embarrassing' problems. Like the Cooke et al. study, Jones et al. sought clients' responses to prescribed questions. They did not direct the questions to the events of any specific consultation and they did not explore if the clients felt their needs were met.

O'Malley, Omori, Landry, Jackson and Krvenke (1997) explored clients' satisfaction immediately following their visits to an ambulatory general medical clinic, during which they had initially been seen by a trainee and then by a practitioner. The study used a Medical Outcomes Study, in this case a client satisfaction questionnaire, within which



clients were asked to comment on issues related to student's work over which the clinician has direct influence. These were: personal manner, technical skills, time spent with clients, explanation of what was done, and overall quality of the encounter. Clients were also asked if they were willing to see a student again, and what they thought were the benefits and the drawbacks of having a student involved in their care. Clients were generally pleased with their encounters, regardless of the students' level of training and they were happy with elements of experience such as waiting time. Ninety-five percent were willing to see a student again. As a consequence of exploring whether or not they were satisfied with their health care, the authors found that only five percent of participants thought there was a potential for worse care if a student was involved. Over a quarter of the participants thought a student might enhance the quality of the care they receive.

In a retrospective study, designed to determine what clients think about students' involvement in their health care, Devera-Sales, Paden and Vinson (1999) explored the view of over seven hundred clients. While nearly forty percent thought the presence of the student lengthened the time of their visit, and some of the clients reported not being asked for their permission to be seen by a student before a student came into the room, they were not unhappy about student involvement. In the main, they perceived it to be beneficial, which concurs with O'Malley.

Using interviews, Thomas, Hafler and Woo (1999) explored hospitalised clients' views of being interviewed by first year medical students. The clients all had a favourable impression of the students, recounted the importance of the need for them to have people to work with and learn from. The clients' views on the effect of student involvement in their health care were not explored.

Again in medicine, Chipp, Stoneley and Cooper (2004) explored clients' views of student involvement, on this occasion prior to their health consultation. They found that the likelihood of a client allowing a student to be involved in their health care depended on their perception of the student and the procedure being undertaken.

In another retrospective study, using a postal questionnaire, Xing and Long (2006) explored clients' level of satisfaction and experience in an acupuncture teaching clinic. This study was more comprehensive than others. It explored the clients' perception of the effectiveness of the treatment they received. They were also asked to rate the student practitioner against six areas of clinical practice and also the clients' view of the quality of the supervision provided to the students whilst their health care issues were

being attended to. The questionnaire also explored the clients' perception of the duration of student–educator discussion of their case and if they thought certain issues ought to have been discussed in front of them, the clients. Hence, this is one study which explored how actual teaching events took place and how the client felt about them.

Thistlethwaite and Cockayne (2004) used a questionnaire posted to clients, who had consulted with first-year medical students over the previous four-year period, to determine their views on the actual process and what they understood to be the purpose of being interviewed by students. Clients reported that a benefit was that they had someone to talk to about their consultation and they liked to assist in the education process. Haffling and Håkansson (2008) also explored clients' views by asking their attitudes to consultations involving students alone, and their perception of their teaching role. They also found clients have a positive view toward being involved in medical student education and like to make a contribution. What physiotherapy clients think is not canvassed in the literature.

In summary, clients like to be involved in the education of health professionals. By and large they see it as a personal advantage and regard it as being helpful to society. They seem to expect a standard of care better than or equal to what they would normally expect from a qualified health professional. What has not been determined is if the clients are satisfied with the level of supervision of students' work. Nevertheless, the supervision of students' work invokes a plethora of educational and legal concerns.

### **Other legal complexities of clinical education**

Apart from asking the client to consent to student involvement in their care, the physiotherapist educator has many other concerns to address when they offer placement opportunities to students.

Previous studies have stated that within any health care facility the practitioners/educators have both a moral and a legal obligation to provide adequate supervision of students working with clients (Butters and Strobe, 1996; Kinsman, 2000; Klig, 2003). And, even though it is widely accepted that there is a great deal of variability in what constitutes ample supervision, a lack of consensus on how to supervise or educate does not necessarily protect against allegations. In legal proceedings, it is likely that it may be argued 'that there is a standard for adequate

supervision [and or educating] as well as a standard for competence' (Kinsman 2000, p.241).

Clinical educators have a duty of care to clients and can be held liable, either directly or indirectly for the errors or omissions of those under his or her supervision (Kapp, 1984; Kinsman, 2000; Klig, 2003). Kapp stated repeatedly (1983; 1984; 1984) that it is possible for a supervisor to be held liable for breaches of the standard of care if a client suffers damage while under the care of a student. In such an instance the supervisor, the school in which the student is enrolled, and the affiliated clinic in which the alleged injury arose, are all likely defendants in a lawsuit initiated by a client. In particular, Kinsman (2000) suggested possible allegations might include potential claims:

- by students that they did not receive an adequate supervision; and
- by clients that they did not receive the proper care at the hands of a student.

Rooted in tort law, 'vicarious liability' is a form of secondary liability that arises under the common law doctrine of agency *respondeat superior*, which means the responsibility for the acts of the subordinate lies with their superior. In other words, this aspect of tort law is liability for the negligence or wrong of another:

*Sometimes called 'imputed liability', attachment of responsibility to a person for harm or damages caused by another person in either a negligence lawsuit or criminal prosecution. Thus, an employer of an employee who injures someone through negligence while in the scope of employment (doing work [paid or unpaid] for the employer [or supervisor]) is vicariously liable for damages to the injured person (Farlex Dictionary, 2009).*

The literature centred on adequate clinical supervision is sparse. However, what does exist indicates that the person supervising the student, the health care facility and the educational institution can all be involved in litigious proceedings. Even though a recent report from Mawdsley and Cumming (2008) recounted that the Australian courts have not yet been challenged on educational malpractice, it does not diminish the issue.

Kinsman (2000) tells us that the courts in the United States of America are not keen to intervene in educational malpractice issues, but the intermingling of medical issues puts clinic educators in the health professions at a greater risk than other educators, because of the potential for the student to claim that they did not receive adequate

supervision and the client to claim that they received improper care at the hands of the student in a program. Further, Kinsman suggests that the term *proximate cause* is the barrier to those alleging educational malpractice. In such cases the plaintiff must demonstrate “that the negligence flowed from the educational practice, rather than from the student’s individual shortcomings” (Kinsman, 2000, p. 241).

A review of the legal considerations of clinical education from the work of Kapp, (1983; 1984; 1984a), Kinsman, (2000) Klig (2003) and the NSW Registration Board documents (2010) highlights four (4) key considerations for clinic educators:

1. There is a need to standardise operational procedures for client–student interaction. Students must be given clear rules, procedures and instruction in the proper manner of care, and they must never be left alone to undertake procedures when there is potential for serious injury to a client.
2. Students may potentially be held liable for a standard of care that is comparable to a registered practitioner (depending on the educational situation), and if negligent in the care of the client, can result in a claim of direct or indirect (vicarious) liability for the supervisor. The students’ education status must be disclosed to the client.
3. The clinical supervisor is liable for the quality of the supervision given to students, as well as for the quality of the care given to clients by students supervised by them.  
It should be explicit to clients that students are an extension of, rather than substitutes for, clinical staff in all activities related to their care.
4. It is critical to have clients’ give their informed consent-to-care by students. Clients involved with students’ education must be informed that those with whom they are dealing are, in fact, students. Clients involved with students’ education must be asked to give consent-to-care by students, and that consent ought to be renewed at regular intervals and in different situations.

Apart from adequate supervision, confidentiality can be a concern for clients. Apart from client choice on whether to consult with students or not, another critical issue centres on who has access to information about the client. For example, O’Flynn et al. (1999) reported that clients want to know if the students have access to their case notes and whether discussion about them occurs after they have left the consulting room. Knowing more about this could have a significant impact on the client’s motivation to participate.

In this study, it was decided that it was necessary only to undertake a preliminary exploration of the students’ and educators’ general understanding of the legal aspects of clinical education. Their explicit understanding was not explored within either the

interview or survey formats. At interview, educators and students were asked to comment on the nature of their understanding of the legal requirements for clinical education.

### **Client involvement in student education**

Informed consent to the provision of care aside, conducting educational events in the presence of the client is integral to the student's preparation for practice. Suffice to say, students cannot be expected to learn all they need to know if they are not fully immersed in a professional workplace setting which exposes them to a variety of episodes of health care. Students must have opportunities to attend clinical settings which require them to communicate effectively with people who have a wide variety of physical and mental capabilities. Students need practice with people with genuine health concerns so they learn ways of applying their knowledge and skills appropriately.

In response to the question, 'What sort of people like to be involved in education and how do they generally become involved?' Towle (2006) reported that members of the public are involved in health professional education in several ways when they become members of curricula development advisory boards, research groups, when they act as simulated or standardised clients giving expert feedback to students during lectures and exams, and when they share their own experiences with students and educators.

Despite these studies, the fact that the client assumes multiple roles in education studies that examine how clients interact with students working in actual clinics, these are only beginning to appear in the literature. For example Laitinen et al's (2008) study identified that clients interacted with students in four different ways during clinical education. These are explained below:

- **A receiver** is the description of a client in a situation during which the clinical educator and the student do the majority of the talking while the client remains quiet. The client is the recipient of physiotherapy care.
- **An executer** is the description of a client in a situation during which the clinical educator gives instructions to the student and secondly, the student performs the actions. The client could participate in treatment by performing the given instruction.
- **A participator** is the description of a client in a situation during which he/she makes a more significant verbal contribution than in the two previous instances. The client asks questions about exercises and activities.

- **A fellow** is the description of a client in a situation in which he/she and the clinical educator engage in informal conversation/chatting.

Such interactions provide insight into how clinical education can be driven by the client's needs, beliefs and personality. Irrespective of what the clinical educator has planned for the student to learn, the extent of the students' educational experience can be either enhanced or limited by the way the client interacts with them. There are no reliable predictors. Each clinical education event is, with all the best of intentions, an ad-hoc, opportunistic, unpredictable and irreplaceable educational experience.

There have been no studies found which have explored whether physiotherapy clinical educators understand and demonstrate or role model the principles of client-centred care during their educative activities. The studies which took place in the other health disciplines give some indication of the debate on this issue and these are presented below.

In an exploration of student–patient interaction in clinical education, Robertson et al. (2002) sought, through the use of closed-ended questions, to understand the general tenor of the clients' perception of the clinical education events. They also used a similar questionnaire to explore students' and graduates' views of whether or not clinical education was effective in general, and, in particular, in teaching certain knowledge and skills. Because of the nature of 'closed questions', the study lacked a depth of enquiry in that the students were asked to respond 'yes' or 'no' to the question: 'Do you think the patients enjoy clinical teaching?' Clinical educators' views were not explored.

There has been some exploration of the change in students' client-centredness through the duration of an undergraduate or pre-professional program. Haidet et al. (2002) studied the attitudes of medical students (n=673) towards client-centred care to understand the differences in these attitudes between students in early and later years of medical school. They found students in later years have attitudes that are more doctor-centred or paternalistic than those in earlier years. Female students, third year students, and those with European–American ethnicity who had selected a career in primary care, indicated a significantly higher level of client-centred attitudes. The authors commented that given the current health care climate the emphasis was placed on client satisfaction and client-centred care. Therefore it is an aspect of practice which warrants further research.

In a later study, Haidet et al. (2006) used a survey to learn from medical students (n=823) the client-centred characteristics of learning environments in nine medical schools in the United States of America. The authors commented that the client-centred nature of the learning environment is more complex than the question they asked implied. The nine schools demonstrated unique and different learning environments, both in terms of magnitude and patterns of characteristics. The authors wrote they were dedicated to understanding the effectiveness of efforts aimed at change, and to understand the effect the learning environment had on the client-centred behaviours of graduates. This infers the learner will take away some new knowledge or attitude towards managing clients' health care. The study would have benefited from including some interview data exploring the students' concepts of client-centred care as this current research incorporated.

The educators' ability to demonstrate client-centredness is one factor, yet the actual clinical setting also appears to impact on the students' client-centredness. For instance, McCarthy (2006) studied how nursing preceptors (n=6) interpret, operationalise, document and instruct client-centred care in nursing and midwifery in Ireland, as they guide students within an acute surgical environment. The study sought to identify what challenges educators had in translating the client-centred care approach into practice so they can teach students. They identified that educators had a limited conception of client-centred care. Educators were found to prefer instructing practical skills, providing facts and giving students lists of the important things to remember, and they did not necessarily feel comfortable being seen as 'role models'. Additionally, they considered students added to their workload. However, despite the Irish educators not exhibiting a clear understanding of client-centred care, they were able to instruct the student in a coherent approach to care, reflecting the medical model of nursing. Educators were found to conceptualise client-centred care in terms of good manners and professional etiquette. The authors concluded that educators need professional development to enhance their ability to facilitate the implementation of the most wanted, client-centred concept.

It appears a students' client-centredness might shift over time. Tsimitsiou et al., (2007) undertook a longitudinal survey using a Patient–Practitioner Orientation Scale with a cohort of medical students (n=483) in Greece. Their aim was to assess possible attitude changes towards client-centredness in a medical students' cohort as they progressed through the clinical curriculum. They found that while the cohort maintained a satisfactory level of client-centredness, they were significantly more doctor-centred at

the end of their studies compared to the beginning of their studies. The authors suggested the increased authoritarianism in graduating students' attitudes emphasised clearly the need for future research.

Noticeably, the literature shows the ultimate intent of a health professional is to be client-centred, whether in private practice or in health education. Members of the public extend their goodwill and generosity by participating in health professional education at any level. Yet the key issue, how to teach health professional students to adopt a client-centred disposition, remains unclear. The current research will contribute to a better approach to the issues by exploring how clinical educators' role model and use client-centred care via their educative practices.

### **The nature of communications between the client and health science student**

Notwithstanding the aforementioned points about clients' rights and the valuable contribution members of the public make when they participate in health professional education, successful collaboration can depend as much on the client's, student's or educator's communication and negotiation skills as it does on their intent to collaborate. Collaboration between client and health professional or student can be influenced by a plethora of issues. Other reports state that difficulties arise in health practitioner–client conversations when there are physical barriers, for example hearing and vision impairments, intellectual impairments such as learning disabilities, language and educational difficulties, religious differences, differing socioeconomic backgrounds and the anxiety associated with illness (Greenberg, Walker & Buchbinder, 2006; Krupat, Yeager and Putnam, 2000; Levinson et al., 2005).

Health practitioners, students and practitioner/educators can make clinical decisions without involving the client at all. Whether in professional practice or in clinical education, the central question in all client–student, practitioner/educator consultation is: 'To what extent does the client want to be involved in decision-making or do they want to be a passive recipient of care'?



Thompson, Pitts and Schwankovsky (1993) and Thompson (2007) hold a view of practitioner–client communication which suggests the circumstances in which clients are proactive in the decisions about their health care surround:

- The need for care;
- The type of illness and the seriousness of the illness;
- Personal characteristics such as knowledge;
- Experience and personality; and
- Trust in the professional relationship.

Even though environmental factors, different personalities and the clinical scenarios must be taken into consideration before making a judgment about the nature of client, educator or student modes of interaction, the expectation that there is a gold-standard model for health practitioner and client communication, suitable for all clinical scenarios, is impractical. Unwavering adherence to any model of communication regardless of circumstance is not a rational aspiration.

Rather, when health practitioners are communicating with their clients and when clinical educators are working with students and clients, according to Strumberg (2005, p. 236), it is widely regarded that best practice would be evidenced by dialogue which reflects the notion that:

*Removal of underlying pathologies through the application of science and technology alone will not restore a client's health; that will require connecting with the person behind the disease.*

Even though it may be said the students' consultation and communication skills can at times be developed more comprehensively in simulated teaching and learning situations, I would argue that there can be no better learning than that which comes from success or failure in communications with a person who has a genuine health concern in a real-time situation, in an authentic clinical setting. The client's views of whether or not the consultation involving a student, met their needs was explored as part of this study.

## Summarising Chapter Two

In summary, each of the aforementioned issues gives a strong indication that due attention is being paid to the education of health professionals regarding their obligations to practise client-centred care. This includes physiotherapists. The members of the physiotherapy profession, the clients, the student/graduate physiotherapists, and the clinical educators who work with new members of the profession all have a stake in ensuring the treatment clients receive when they are involved in the student education process is client-centred.

The mandate to do so is influenced by the Australian Department of Health and Ageing, the National Registration Boards, the Council of Australian Governments, the Australian Physiotherapy Council, which accredits the tertiary education institutions, the Australian Commission on Safety and Quality in Health Care and the Australian National Client Safety Education Framework, the Australian Physiotherapy Association, the education providers, the physiotherapy students, the physiotherapists and physiotherapy clients themselves. They are diagrammatically represented in Figure 2 below.

To establish the contextual considerations, all of the influences on client-centred practice in the health professions are included, to draw attention to the point that the rights of the members of the Australian public who participate in health professional education are supported by legislation and by the health discipline professionals such as physiotherapists who put the clients' needs and values first and foremost.

In the next chapter, Chapter Three, several elements of clinical education are explored in greater detail. These include what is understood about the general tenor of client, educator and student interactions during clinical education and health care events. Also described are the specific aims of clinical education, experiential learning frameworks, clinical education strategies and what clinical educators' and students' perceive to be effective strategies and processes in clinical education. Thus Chapters Two and Three culminate in identifying the breadth of the discourse about clinical education in the current literature.



**Figure 2. Summarising the elements that contribute to the achievement of client-centred care**

## CHAPTER THREE

### EXPLORING THE LITERATURE ON CLINICAL EDUCATION

*Effective work-experience involved meaningful work, induction, assessment, reflection and de-briefing, and monitoring of the quality of the outcomes.*  
(Cooper et al., 2003, p. 1).

#### Introduction

Chapter Two described the context within which health professional education takes place. Chapter Three centres on clinical education frameworks, the interrelationships between the client, practitioner/educator, student/learner triad and the views of clinical educators and students about clinical education. The literature used to underpin this study will be fully explored. In the main, the literature has been taken from the last two decades, 1990 onwards. In some cases earlier work is cited if it was considered seminal. This exploration of the literature is presented in five sections.

Section One sets the learning scene. It presents an exploration of the literature as a broad picture of the nature of client, practitioner/educator and student communication. This is followed by descriptions of the elements of experiential learning in professional placements, the nature of clinical supervision and the complexity of clinical education. The aforementioned themes are followed in Section Two with an examination of the literature about clinical education and the operational frameworks and processes within it. Section Three explores the variability of the clinical education setting and the aims of clinical education. Section Four investigates the literature related to clinical education frameworks and processes. Section Five explores the professionals involved in clinical education: what is known about practitioner educators' preparation for their role as well as the students' views on clinical education along with what they consider to be the best attributes of clinic educators.

The chapter concludes with a summary of the themes identified in the literature that are important to this study and identifies the gaps in the literature to which this study intends to make a contribution.

## **Section One: The nature of client, educator and student interactions**

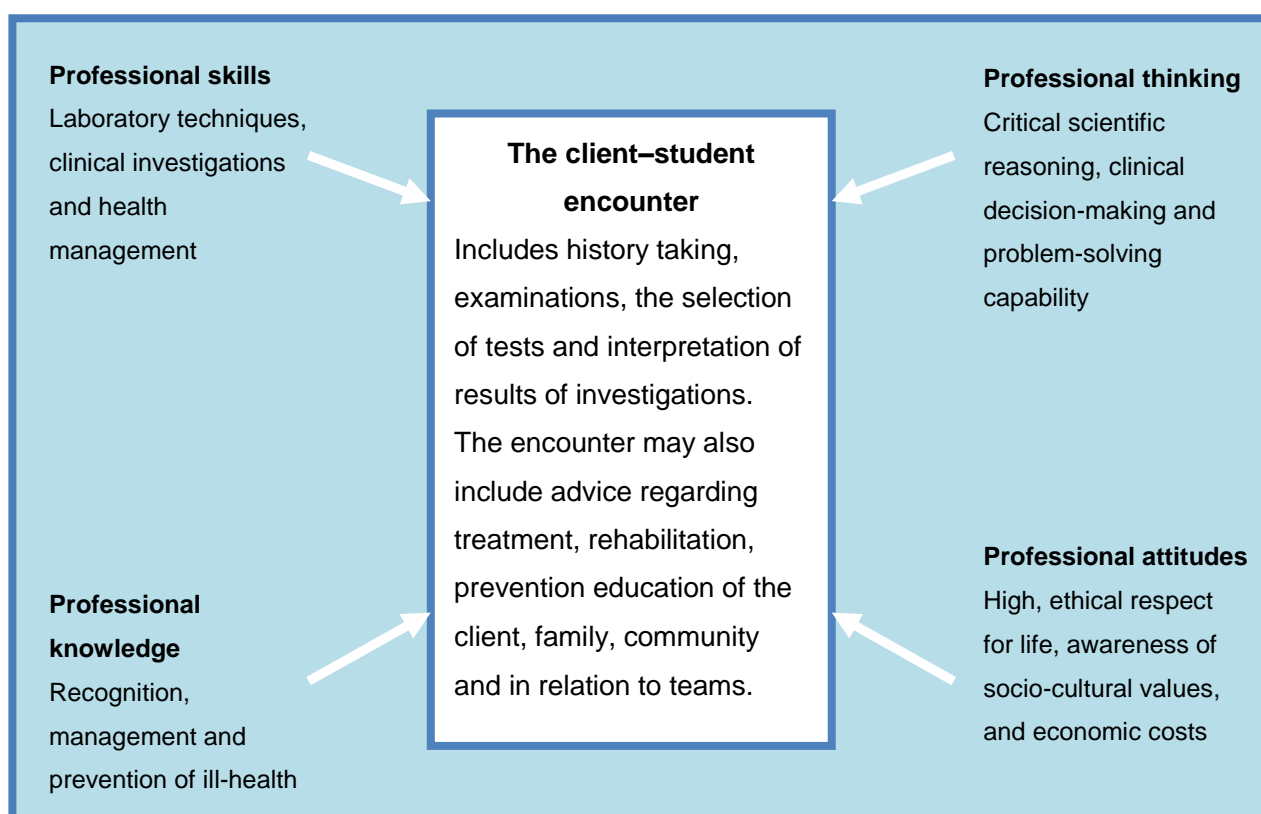
Across the health professional disciplines, it is widely acknowledged that the key to successful health practitioner and client consultation is the quality of the bilateral communication. For example, the client-focused nature of any consultation is central to the clients' satisfaction with the consultation (Flocke, Miller and Crabtree, 2002) and with the clients' adherence to suggested or agreed therapies (Schneider, Kaplan, Greenfield, Li and Wilson, 2004). It is not surprising then that Monekosso (1998) claimed that the doctor–client encounter is at the very nucleus of the medical curriculum. So, in essence, clinical education is about the students learning how to communicate effectively with clients to meet their health care needs. The student's ability to communicate appropriately with a client is at the core of all activities undertaken in clinical education.

The competencies expected of entry-level physiotherapists, as espoused by the APC (2009) and listed in Chapter Two, were explicit in what they required of the physiotherapist during a consultation. This included the making of multiple, complex decisions about client care practised in a client-centred way. Decisions such as these require the best possible level of communication the circumstances allow.

Further, Murtagh (1997) and Simpson, Buckman, Steward, Maquire, Lipkin, Novack et al., (1991) suggested that the successful outcomes in a client–health practitioner interaction can depend on the practitioner's ability to effectively apply an array of different skills. Murtagh suggested this interconnected skill set comprises of a framework of consulting skills, clinical, diagnostic, management, educative, therapeutic, manual and counselling skills as well as the most fundamental of all the skills, the ability to communicate with the client. In addition, a review of Monekosso's (1998) framework regarding the profile of a doctor of medicine showed the knowledge, skills and attributes required by doctors. The framework highlights the complexity students face, that is, irrespective of the health professional discipline, the skills described by Monekosso demonstrate the educational challenge for students and also for clinical educators. To reiterate what has been stated earlier, the very purpose of clinical education is to expose students to real-life situations so that they can develop the complex and necessary skill-set.

Figure 3, below, illustrates an adaptation of Monekosso's (1998) framework so that it becomes representational of educational aims. The term 'doctor' has been replaced with the term 'student'. The skills depicted are representative of the goals of

physiotherapy clinical education in general, that is, with the aforementioned list of professional competencies expected of entry-level physiotherapists. Figure 3 makes obvious the complexity of the clinical educators' task when they seek to assist the student to develop and apply these skills in a clinical education setting. Makoul (2001) also proposed a framework illustrating good practitioner–client communication. This is presented in Table 1. Like Monokosso's framework, Makoul's framework is readily adaptable to all health care professionals and education settings and reinforces the notion of collaboration between the client and practitioner as seen on the following pages.



(Adapted from Monokosso, 1998)

**Figure 3. The elements underpinning a client–student encounter**

**Table 1. Makouls' (2001) framework detailing effective practitioner–client communication**

<p><b>Open the discussion</b></p> <ul style="list-style-type: none"><li>• Allow the client to complete his or her opening statement</li><li>• Elicit the client's full set of concerns</li><li>• Establish/maintain a personal connection</li></ul> <p><b>Gather information</b></p> <ul style="list-style-type: none"><li>• Use open-ended and closed-ended questions appropriately</li><li>• Structure, clarify, and summarize information</li><li>• Actively listen using nonverbal (eg., eye contact) and verbal (e.g., words of encouragement) techniques</li></ul> <p><b>Understand the client's perspective</b></p> <ul style="list-style-type: none"><li>• Explore contextual factors (e.g., family, culture, gender, age, socio-economic status, spirituality)</li><li>• Explore beliefs, concerns, and expectations about health and illness</li><li>• Acknowledge and respond to the client's ideas, feelings, and values</li></ul> <p><b>Share information</b></p> <ul style="list-style-type: none"><li>• Use language the client can understand</li><li>• Check for understanding</li><li>• Encourage questions</li></ul> <p><b>Reach agreement on problems and plans</b></p> <ul style="list-style-type: none"><li>• Encourage the client to participate in decisions to the extent he or she desires</li><li>• Check the clients' willingness and ability to follow the plan</li><li>• Identify and enlist resources and supports</li></ul> <p><b>Provide closure</b></p> <ul style="list-style-type: none"><li>• Ask whether the client has other issues or concerns</li><li>• Summarise and affirm agreement with the plan of action</li><li>• Discuss follow-up (e.g., next visit, plan for unexpected outcomes)</li></ul>
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Adapted from Makoul (2001)

A collation of the ideas of Monekosso (1998), Makoul (2001) and Platt and Gaspar (2001) suggest that during a client-centred interview, the physician has five main areas of concern. That is, it is the task of the health practitioner or student to determine information about the client such as identifying work, interests and relationships, what the person values and hopes to accomplish with their particular visit, how the client experiences their illness, the client's ideas about their illness, how they prefer to be treated, and if the client has any of the five common responses to illness: fear, distrust, anger, sadness or ambivalence.

To summarise, it becomes clear just how much potential there is for students to be overwhelmed when one considers the knowledge, skills and attributes required of health professionals as espoused by Murtagh (1997) and Monekosso (1998), together with the elements of a collaborative framework by Makoul (2001), and the five (5) foci of a consultation presented by Platt and Gaspar (2001). To any health practitioner's eye, the frameworks by Makoul (2001), and Platt and Gaspar (2001), would typify the process of an everyday consultation. These frameworks were used in the development of the Observation Audit Tool (OAT) used in Part Two of this study to discover the nature of client, educator and student interactions. This will be discussed more in Chapter Four. Having searched the literature for information about communication between the learning triad, the next sub-section will explore the process of experiential learning in clinical practice.

#### Learning from the experience of clinical education

*Experiential knowledge is that which emerges when the experience is structured to achieve learning as an outcome of the experience.*  
(Conway and McMillan, 2000 p. 267).

Experiential learning refers to student learning derived from their direct experience of some situations. Irrespective of where the experience took place or what the experience actually was, generally, any experiential learning framework focuses on the educator's activities that help the student to reflect on their experience (Andresen, Boud and Cohen, 1995; Kolb, 1984). In physiotherapy, learning to reflect is crucial because reflection on practice is central to advancing professional practice. In undergraduate physiotherapy education the student's experiential learning activities are planned so that they have every opportunity to develop the competencies desired by the APC (2009) and each phase of that plan requires students to critically reflect on their own abilities in clinical situations.

Typically, one of the key distinguishing features of all experienced-based learning frameworks is that the student occupies a central place in all considerations of the educational event (Andresen et al., 1995; Kolb, 1984). However, in clinical education, the client cannot be overlooked. To be genuine, to provide the student with an authentic, real-time learning experience the client must be included in the concept and delivery of any experiential clinical education event. That is to say, while it is essential

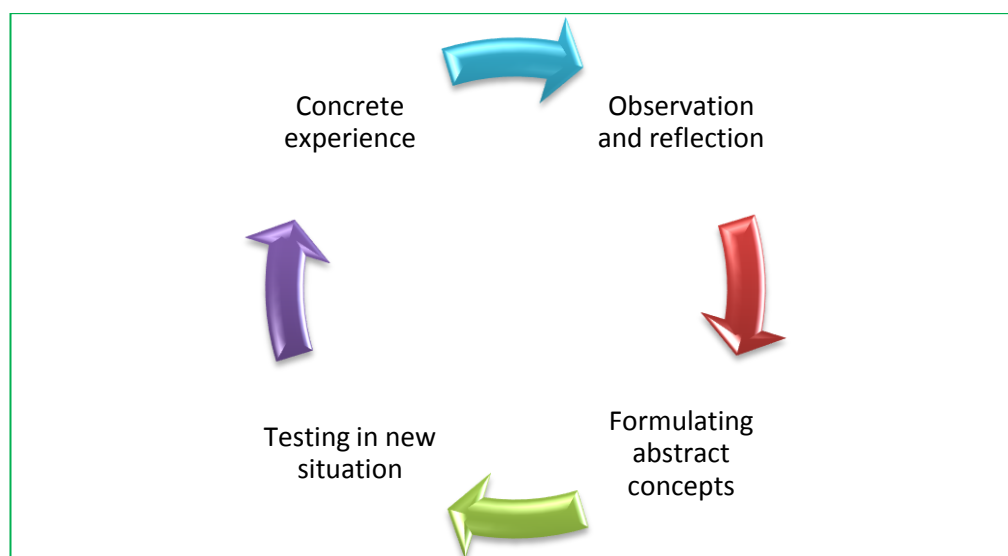


to bear in mind that clinical education events focus on the student's unique learning needs, it is imperative to remember that they do so only in relation to meeting client care needs. Any reflection on practice the student engages in ought to include the client's perspective of the education event for it is likely that in any clinical experience the student has, the client will make a pivotal contribution to a student's learning.

As discussed in Chapter Two, theories other than experiential learning theory are also applicable in the clinical education setting. Theories such as Discovery Learning Theory (Bruner, 1961), Adult Learning Theory (Knowles et al, 1978), Social Development Theory (Vygotsky, 1978), Social Learning Theory (Bandura, 1986), Situated Learning Theory (Lave and Wenger, 1991), and Communities of Practice Theory (Wenger, 1998) are all applicable to experiential learning situations such as clinical education.

Learning situated in any professional practice setting involves students being socialised into their discipline specific way of working and the ways other disciplines work. At different times the student's immersion in the professional placement aligns with all of the aforementioned theories. Further, if the choice of client and the level of education are matched, the educational events are also more likely to fit with Vygotsky's (1978) notion of the 'just right challenge'. All this happens in practice: through their numerous interactions, students 'discover' new knowledge.

It is Kolb's Experiential Learning Cycle (1984) that synthesises many aspects of the abovementioned theories and mirrors their intentions. So, for these reasons, Kolb's Experiential Cycle was used in this study as the framework to represent the physiotherapy clinical education cycle. Kolb's conceptual map, presented in Figure 4 below, outlines the cycle of thinking the students might take to transform their practice experiences into professional knowledge. The student first has the experience of the more concrete phase. This is followed by a period of thinking through their experience, an observation of the self relative to that experience and then reflection on it. That stage is followed by another where the student engages in rethinking and reformulating his/her preconceived ideas. Abstract concepts are created in the learner's mind and the newly developed 'knowing' is then applied to a new situation. At all four stages it is expected that the educator's activities will guide the student's progress from one stage to the next.



(Adapted from Kolb, 1984)

**Figure 4. Kolb's Experiential Learning Cycle**

As stated earlier, although not the only framework applicable to professional placement education, Kolb's (1984) Cycle of Experiential Learning has been critiqued, adapted and applied by many authors in numerous health professional education situations (Baird and Winter, 2005; Edwards, Best and Rose, 2005; Fry et al., 2005; Irby, 1994; Kaufman et al., 2000; Mandy, 1989; Smith and Irby, 1997; Stanton and Grant, 1999). Smith and Irby (1997) explored the application of Experiential Learning Theory to improve education in the ambulatory care education setting. The ambulatory care setting is particularly relevant in this study as it is one of the key settings in which physiotherapy students undertook their clinical education. Therefore Smith and Irby's work is of particular interest to this research and is outlined below. Smith and Irby advocated that mindfulness of the framework acknowledges the shift in the clinic educator's role from purveyor of information to facilitator of learning. In order to assist the educator to make that shift, Smith and Irby proposed four guidelines. They suggest the clinical educator needs to:

- Plan the experience in carefully selected settings;
- Facilitate reflective observation;
- Encourage conceptual thinking and inquiry; and
- Promote feedback and testing of insights.

Smith and Irby claimed the guidelines are designed to maximise student learning and concentrate clinical educators' efforts, which, they surmised, ultimately add to the educational value of the setting. My conceptualisation of Smith and Irby's guidelines, overlayed with Kolb's Cycle, is presented in Figure 5.



**Figure 5. A conceptualisation Kolb's cycle by Smith and Irby's (1997)**

The context and the logistics of a clinical practice site appear to have a significant influence on what and how teaching and learning occurs. Over a decade ago, Shephard and Jensen (1997) commented that in contrast to teaching in the university where education potentially has a far greater theoretical orientation, clinical learning takes place in the 'context of practice and client care' which is known to be a dynamic, often unpredictable environment.

It is constructed around a client's visit to the clinic for a period of time. In essence any clinical education activity is structured around the health scenario the client brings with them to the clinic and different clinical practice sites carry their own assorted complexities. Numerous papers note that different clinical education settings not only facilitate different opportunities to educate and instruct students, but the upside is that they also provide exposure to different types of clients which affect, either negatively or positively, the student's skill development. Numerous studies have encapsulated aspects of the types of clients the students will encounter. Briefly, these studies are from the following authors: Barclay, McKinley, Peitzman, Burdick, Curtis and Whelan

(2010); Carney, Eliassen, Pipas, Genereaux and Nierenberg (2004); Crotty, (2005); Freeth et al., (2001); Hebert and Wright (2003); Kernan and O'Connor (1997); McLeod, Meagher and Tambly (1999); O'Sullivan, Martin and Murray (2000); Ramani (2003); and Worley, Prideaux, Strasser, Magarey and March (2006).

Additionally, a number of studies have identified that, in one setting or another, a variety of reasons exist that affect the clinical educator's ability to observe and supervise students' learning activities (Daelmans, Hoogenboom, Donker, Scherpbier, Stehouwer and van der Vleuten, 2004; Howley and Wilson, 2004; Landridge and Hauck, 1998; O'Sullivan et al., 2000; van der Hem-Stokroos, Daelmans, van der Vleuten, Haarman and Scherpbier, 2003). Some sites appear to be better than others. Yet, irrespective of the constraints of a particular clinical education site or the type of clients who attend at the site, Kolb's (1984) Experiential Learning Cycle provides an appropriate stimulus and direction for the clinic educator's approach to educating.

Notwithstanding the former point, Kolb's model does not automatically focus the educator's attention on where and how the client, a major stakeholder in the education process, can make a contribution to the student's learning experience. It has been identified in previous studies that clients want to tell students about their experience of their particular health issue; they feel that by doing so gives them a sense of purpose (Haffling and Håkansson, 2008; Thistlethwaite and Cockayne, 2004).

This under-explored aspect of clinical education, the client's contribution, is the central focus of this research. By appraising current clinical educational processes against Kolb's Experiential Learning Cycle, it is intended that this research will make a contribution to the conceptual and practical understanding of the educational nature of contemporary physiotherapy clinical education.

#### The complex nature of experiential learning environments

As early as 1988, Best states that regardless of whether they are university or hospital employees or private practitioners, supervising students in clinics is a time-consuming process and that lack of time is an obstacle to good education. Myers (2001) reinforced this thinking. A decade later, Pugsley and McCrorie (2007) also advocated for more time to be scheduled for clinical educators to undertake these tasks. That is, in order to ensure appropriate levels of supervision clinical educators need to allow for time to be built into their schedules for instructing students and, in turn, students need the clinical

educators to provide the necessary time so that they, the students, are able to refine their clinical skills in an actual clinical setting.

There is a widely held view that the educators' engagement with student-related issues on top of their other duties can at times be a struggle. This view is supported by Modic and Harris (2007) who reported that the supervisors found it challenging to deal with a student who is disorganised or slow or is easily flustered and fears making mistakes. The most challenging was the 'know-it-all' student who ignores the direction given to them. Whether in the private or public sector, student related issues absorb time.

Given that clinical education takes place in complex environments, where powerful learning opportunities are weighed and balanced against the inherent risks of the dynamic educational setting, there are several factors that add to the complexity of the setting and which can inhibit the learning process. For example, Doubt, Paterson and O'Riordan (2004) established that practitioners think clients would experience decreased satisfaction if they were treated by students and would not want to pay for such services. These authors also say that private practitioners are concerned that health insurers would not want to cover student-delivered services in private practice. This can cause tension for the practitioner/educator and the students, as these difficult issues can affect a clinic's business reputation and perhaps hinder a practitioner's keenness in inviting students to that practice setting. On the other hand, the value of student's involvement in clinical education, with real clients' health care, was highlighted by Spencer, Blackmore, Head, McCrorie, McHaffie, Scherpbier et al., (2000) who claimed that experience with real clients in the authentic clinical context promotes relevance and has a crucial role in developing a student's clinical reasoning skills and professional attitudes and empathy. Hence, to lose any opportunity for students to work with clients who have authentic health concerns is undesirable.

From the aforementioned examples showing the complexity of clinical practice, it is clear to see that any practitioner/educator engaging in undergraduate education needs to bring a special type of dedication to his/her educative role in their profession. Nevertheless, their role can be onerous as other complexities arise, such as legal issues. Therefore the legal issues surrounding clinical education and the practitioner/educators' actions are reviewed next as a necessary part to be considered.

## **Summary of Section One**

It has been shown that the client–student consultation requires the student to be adept with multiple, interrelated skills associated with their ability to counsel, diagnose, manage, educate, provide therapy and collaborate with the client about their health care. When they do engage with clients who have an authentic health concern in a real-time situation it is imperative that students learn as much as they can. Such situations can be overwhelming. While there are many educational theories that contribute to understanding and explaining the intricacies of the clinical education setting, Kolb’s Experiential Learning Cycle has been adopted in this study as the universal descriptor to explain the thinking and transformative processes students are likely to go through during their clinical skills development. Fundamental to the development of all the desired competencies of entry-level physiotherapists is the students’ ability to reflect on practice and to change practice in accordance with the discovery of new knowledge. These are central components of Kolb’s cycle.

As far as the client and the educator are concerned, it can be expected that client satisfaction, with care undertaken by students, is critical to the ongoing association between any practice setting or any practitioner/ educator and the university. If clients think the care given by students is not advantageous to them, then it is likely they will cease to attend the clinics where students are trained or they will exercise their right not to be seen by students at all. Such a scenario would be disappointing for all because, without client participation, it limits the potential for students to attain the necessary professional and clinical skill level to qualify in their respective discipline. Thus, client satisfaction with care by students is paramount. Moreover, the practitioner/educators’ ability to manage educational situations, so that students’ learning needs are met and clients are satisfied with the level of care they receive from students who are involved in their care, is equally crucial.

To summarise, the literature shows that context is a crucial moderator of supervision style and educational processes because of the need for the educator to be mindful of the fact that both client and students needs must be accommodated. The present study focuses on the nature of the client, educator and student triad within the complexity of the environment. Exploration of these themes is expected to add to the literature about the complex nature of clinical education in any setting and the processes that some clients, educators and students find effective.

## Section Two: Organisational frameworks for clinical supervision

Undoubtedly a range of frameworks for supervision are applicable to different clinical settings, to different students and to different clients. We know from evidence across several other disciplines that different frameworks for clinical supervision and the supervision/observation of students' activities can vary (Carney et al., 2004; Chan, 2002; Daelmans et al., 2004; Harth, Bavanandan, Thomas, Lai and Thong, 1992; McLeod et al., 1999; O'Sullivan et al., 2000; Rosie and Murray, 1998). Daelmans et al., (2004) understood that any choice of framework is influenced by two important factors. These are the intent to develop students' clinical competencies and what is required from the clinical educator, that is, comprehensive supervision, appropriate assessment and quality feedback.

Stiller, Lynch, Phillips, and Lambert (2004) reported that the framework within which Australian physiotherapy practitioner/educators work is either the:

- **Shared-Responsibility Framework.** This is a framework where several physiotherapists share the responsibility for the clinical education of students; or the
- **Designated Clinic Educator Framework.** This is a framework in which a single physiotherapist provides supervision.

Stiller et al., (2004) said that Australian physiotherapy clinical educators prefer the latter framework because it is thought to increase the time they have to devote to clinical educating, improve consistency of supervision and assessment of students and decrease levels of stress on the staff. These are important issues by any measure. Other frameworks for clinical supervision are influenced by the student to educator ratio. For example, the Collaborative Learning Model (CLM) is a framework in which two or more students are supervised concurrently by one clinician (2:1). De Clute and Ladyschewsky (1993) found that in comparison with the 1:1 ratio, the 2:1 CLM framework provided more opportunities for peer learning which enhanced the development of students' skills in evaluation, planning and implementation of treatment, communication, management skills, professional behaviour and documentation.

Currens (2003) wrote that the CLM, the 2:1 model, is recommended for physiotherapy because it is thought to be a framework which increases capacity and promotes student-centred learning. The author considered that the CLM improves the capacity for student learning by virtue of the fact that students learn from each other by watching

and participating in each other's learning events. In addition, the effectiveness of the 2:1 student to educator ratio in physiotherapy was explored by Morris and Stew (2007), by consulting both clinical educators and students. They reported that there were a variety of methods to facilitate learning, that students benefited from peer learning and that reflection seemed to be increased when students learnt in the 2:1 ratio. These considerations were also supported by Griffiths and Ursick (2004), Henderson, Heel, Twentyman and Lloyd (2006), Martin, Morris, Moore, Sadlo and Crouch (2004), and Moore, Morris, Crouch and Martin (2003). In contrast, a small study in nursing undertaken by Roche (2002) showed that the 1:1 framework enabled more client–student interaction and more feedback from the educator on student's individual clinical experiences. Each of these elements of learning is affected by the variability of clientele and supervisors and the availability of adequate funds to pay for the student to educator ratio.

#### Supervision organised around the amount of contact between client and student interactions

The literature is clear that both clinical educators and students positively regard situations that allow a high percentage of client–student contact (Freeth et al., 2001; Martin, Morris, Moore, Sadlo & Crouch, 2004; McLeod et al., 1999; Ramani, 2003; Remmen, 1998; Torre, Sebastian and Simpson, 2003; Worley et al., 2006). However, irrespective of the amount of time students have with clients, what is most important is that they are motivated to learn and actually engage as much as they can in learning activities that relate to clinical interventions. In an article which helps capture different scenarios, Dent (2005) identified a variety of models for organising educators' activities around client–student contact. They are the:

- **Sitting-in Model:** where the *student* sits-in with the clinician who manages the consultation with the client while the students observes or may assist in some way. The student is thought to benefit from talking freely with the clinician and the client.
- **Apprenticeship Model:** where the student first sees the client on their own with no interaction with the educator. This is followed by a repeat of the consultation by the educator. This framework is not considered to be time efficient for clinicians or clients.
- **Team Member Model:** where the more senior student is treated like a trainee in the team, and consults with clients in a separate room before being visited by, or reporting back to, the educator who advises him/her accordingly. A negative aspect of this type of arrangement was that the student may miss opportunities to see other clients who attend the clinic and may have less opportunity to interact with their clinic educator. This framework does allow the student to work at their own pace, and the other members of the clinic team can do likewise.



- **Grandstand Model:** in which the educator consults with a single client while several students gather around and observe. The session is similar to a lecture where the educator presents the case and the students ask questions or assist in some way.  
One advantage was considered to be that the students see a number of clients and how the clinic educator interacts with them. However, opportunities for students to talk with clients were limited.
- **Supervising Model:** where the senior student conducts an entire consultation with limited clinic educator supervision. The educator moves in and out of several clinical rooms where different client–student consultations are taking place. The educator supervises various aspects of the different consultations. The positives were considered to be that students have a sense of autonomy with the clients. However, access to educators when the student needed them can be an issue.
- **Report-back Model:** in which senior students conduct the consultation and report back to educators discussing relevant phases of the interaction. Students present the salient features of the case to the clinic educator (and other students). This model is considered to slow down the pace of clinic interventions and may extend waiting times for clients.
- **Breakout Model:** where all students observe the clinic educator interview and examine the client. The student then takes the client to another room and conducts an interview and an examination. This model was considered as enabling the student to consolidate aspects of the case in their own thinking.

As stated previously there are many and various reasons why a supervisor would choose to manage students' involvement with clients in the manner that they do on any given day in a clinical education setting. They might choose any number of the frameworks outlined above.

## Summary of Section Two

Irrespective of what one clinical educator may prefer to do, typically the circumstances of the client's health issue, the setting, the resources and the student to educator ratio, the educators' skills in the education processes and the students' skill level are key drivers to the type of supervision. Success in clinical education can depend on the practitioner/educator's choice from among the numerous strategies which the literature on the subject shows are applicable for organising students' work in any professional placement setting. In this study, there is no critical appraisal of clinical supervision in physiotherapy. Rather, the general concept of clinical supervision is appraised using Dent's Frameworks to enable a context to be described around the exploration of the foci of the study.

### **Section Three: The foci of clinical education**

In clinical education the facilitator of learning, the clinical educator, does not always choose the topic for the day's learning or the focus of discussion, because the learning activities normally centre on the client's health concern. Hence, educational events are student-centred in relation to the focus on the student's learning needs, the environment conducive to learning. This is augmented by the educators' display of positive teaching characteristics, their provision of meaningful and timely feedback to students and discussions about topics the student wants to discuss, managed in a way that optimises the student's learning goals. The severity, importance and urgency of the client's presenting health issues direct the educational event. Each individual circumstance will impact on the degree to which the educator is able to involve the student.

The inherently variable nature of clinical education creates the need for the educator to have a range of educational processes and strategies from which to select. Preferably, they would have a range of teacher-led activities as well as a range of student-centred activities that fit the clinical scenario. Prior to deciding on the appropriate process or strategy is the need for the educator to be fully acquainted with the student's level of competence in relation to the client's needs, as that too will impact on the style of educating he or she adopts.

The variability of the setting and the skills of the educator aside, the purpose of having professional placement education as an aspect of any curriculum is to promote learning about client care. In physiotherapy, as stated in Chapter Two, the APC (2009) entry-level physiotherapist is required to be able to:

1. Demonstrate professional behaviour appropriate to physiotherapy;
2. Communicate effectively;
3. Access, interpret and apply information to continually improve practice;
4. Assess the client;
5. Interpret and analyse the assessment findings;
6. Develop a safe and effective physiotherapy intervention plan;
7. Implement safe and effective physiotherapy intervention(s);
8. Evaluate the effectiveness and the efficiency of the physiotherapy intervention(s);  
and
9. Operate effectively across a range of settings.

Given that the focus of clinical education is to develop the student's skills in relation to the client's health concern, this means that, in essence, the clinical education component of a curriculum is concerned with five (5) scholarly activities. These were

presented in Chapter One and are integrated here to show their alignment with the aforementioned competencies expected by the APC. They are:

1. **Assessing the client requires the student to use his/her skills of inquiry.**  
The student conducts an appropriate interview with the client and selects methods for measuring the relevant health indicators and performing appropriate physical assessment procedures.
2. **Interpretation and analysis of the findings from assessment involve the student's skills of critical analysis.**  
During this aspect of a consultation the student interprets and analyses the findings from the aforementioned assessment in order to then determine a diagnosis of the client's problem and to determine the client needs.
3. **Developing a safe and effective physiotherapy intervention plan requires the student to employ their decision-making skills.**  
Working together with the client, the student develops a physiotherapy intervention plan to meet defined goals.
4. **The implementation of a safe and effective physiotherapy intervention requires the students to apply their theory to practice.**  
In order to do so the student will need to perform many manual and clinical skills in a way that applies appropriate concepts of safe practice.
5. **The evaluation of effectiveness and efficiency of any physiotherapy intervention requires the student to apply their skills of reflection.**  
This means they need to monitor the client's progress against the therapeutic intervention or treatment plan. That is, to reflect on the clinical event/s and to adjust the intervention to ensure appropriate progress.

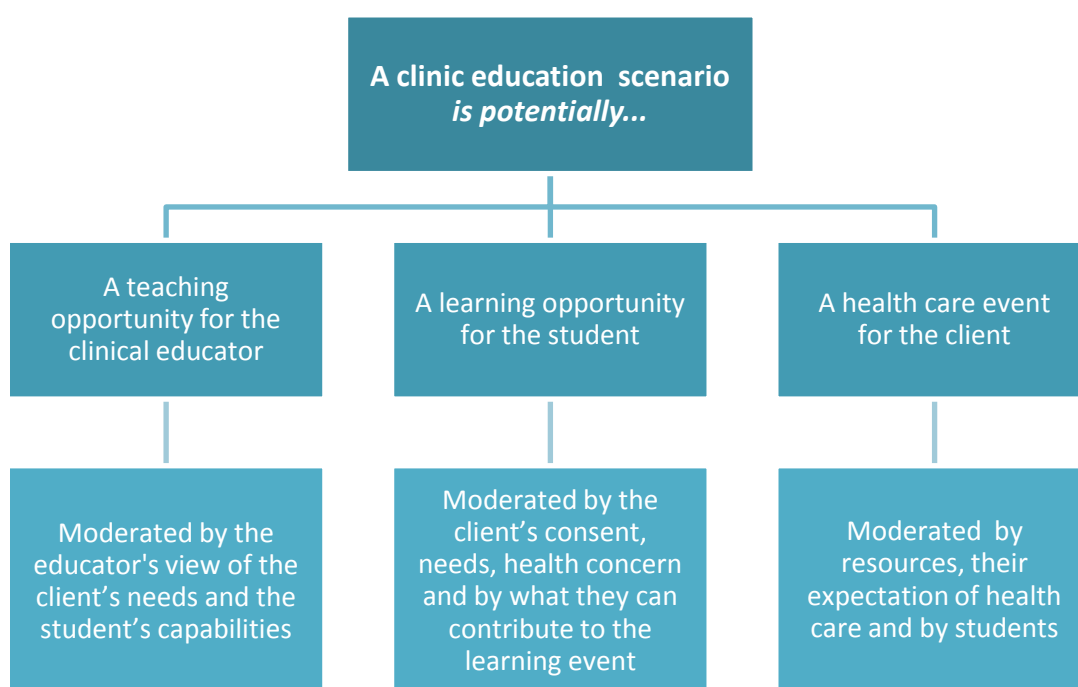
The extent to which the student is involved in client care is subject to multiple circumstances unique to each client, situation and setting. Even so, the aim of professional placement education is to educate health professional students and any such education centres primarily on the student's development of these five (5) scholarly activities outlined above. No single aspect of a client–student consultation relies on the student's abilities in one particular skill. In fact, as stated earlier in this chapter, the student must learn to utilise many abilities and skills simultaneously.

### Constructing knowledge

One of the key roles of the clinic educator is to assist the student's processing of the knowledge acquired so that he or she is able to add that new information to their existing clinical knowledge. An equally important role expected of the clinical educator is to simultaneously monitor standards in client care and the student's impact on those standards. Therefore, in an educational setting, each episode of client care is an educational opportunity.

Figure 6, on the next page, illustrates that each clinical scenario is an opportunity to be a three way process, that of educating, learning and providing health care. All of these are moderated by the educator's skills and abilities to match the client's needs with the student's capabilities.

Similarly the student's learning is not only dependent on the educator, they are also controlled by the client's consent and needs related to their health concern and by what they, the student, has in terms of skills to contribute to the situation. The client's health care is not only moderated by what is possible in terms of resources available in the setting, it is also constrained by their expectation of health care and whether or not they are satisfied to let students be involved.



**Figure 6. Moderators of an episode of client care**

Whatever the phase of the experience with their health issue, every client's experience is unique to them and each client–practitioner encounter requires the making of decisions about the management of the health issue. The quality of the outcome, the quality of the decision relies on the practitioner's judgement. Clinical judgement, based

on the clinical reasoning process, is quintessentially a reiteration of the scientific method of enquiry.

Regardless of the many titles given to the hypothetico-deductive reasoning processes such as: the nursing process, the problem solving process, medical problem solving, narrative, interactive or diagnostic reasoning process, clinical problem-solving or clinical reasoning, in each instance the term is used to describe a health professional's cognitive processes related to making decisions about client care (Benjamin & Hamdy, 1993; Dunn, 1993, James, 2001; Taylor, 1997; Neistadt 1996; Finucane, Crotty and Henschke (2001).

The variability and complexity of the education events aside, activities must in some way focus on the student's development of the required competencies. The hypothetical-deductive reasoning framework seems to be an effective framework to develop a physiotherapy student's clinical reasoning skills. Three esteemed authors, Jones, Jensen and Edwards (2000), argue that the physiotherapy student's development in clinical reasoning skills affects their ability to be successful in each of the competencies.

Numerous studies and theoretical papers have explored, discussed and considered the theoretical basis for clinical reasoning and its implications for the education of health professional students, or descriptions of the clinical reasoning process, critical thinking, and differences between novices and experts (Benjamin & Hamdy, 1993; Dunn, 1993; Finucane, et al., 2001; James, 2001; Massarweh, 1999; Mattingly, 1991 and 1991a; Neistadt, 1996; Tabak, Bar-Tal and Cohen-Mansfield, 1996; Taylor, 1997). It is not within the remit of this study to either explore or add to understanding of the hypothetico-deductive model or any other reasoning or problem-solving model. The model is mentioned here to illuminate the association of the stages in the scientific/clinical reasoning process with the client–health practitioner consultation which, in this study, is the client–student consultation under the direction of the educator.

Jones et al., (2000) wrote that in physiotherapy, the hypothetic-deductive reasoning framework, hypothesis generation followed by hypothesis evaluation, is an accepted framework to build and explain how the physiotherapist's knowledge, skills and attitudes are applied in each episode of working with a client to achieve a desired clinical outcome.

A compilation of the literature mentioned above shows that in a clinical situation one of the widely accepted reasoning frameworks involves the following steps:

1. Take the client's history and observe the situation and collect data.
2. Formulate the hypothesis that might explain what is observed and decide what test needs to be undertaken.
3. Deliberate on the results and identify the most appropriate intervention and deliberate on what the outcomes are likely to be.
4. At a later time or date, evaluate the outcome of that intervention or action and decide if it is necessary to change the hypothesis and go back to step 3.

Almost certainly all client–student interaction involves the student engaging with the client at some stage of either the educator's or the student's own hypothetical-deductive reasoning framework about the client's care.

Clinical reasoning is not a linear process, nor do the stages necessarily occur sequentially. Clinical reasoning and decision-making are continuous and occur at all phases of the health practitioner–client consultation (Dunn, 1993; Ryan, 1995).

As early as 1995, Higgs & Jones used a spiral to demonstrate their integrated, client-centred model of clinical reasoning. Their spiral concept endeavours to highlight that clinical reasoning is both a cyclical and infinite process. The model emphasizes that a diagnostic decision precedes a decision about an intervention, which in turn precedes a decision about an outcome of an intervention, all of which involve negotiations with the client during the client–practitioner consultation. The spiral concept enables a more realistic understanding of thinking and decision-making during a consultation because in any consultation, however long, certain points are reached and decisions are made that initiate action. The action taken begets a subsequent decision and action which in turn needs to be evaluated either immediately or at a later stage and so the spiral of reasoning and decision-making evolves. Regardless of the time taken to reach a decision, be that a decision about data collection from the client, diagnosis, prescription, intervention or the overall management plan, after each decision a completely new cycle of hypothetico-deductive reasoning begins for the next area of focus.

Understanding that clinical reasoning is not linear or unidirectional, that it is an upward and outward moving spiral of information gathering, makes it possible for the educator to plan his/her activities and dialogue around the student's development of key concepts or decisions. That is, to plan to have dialogue with students around the

stages of the spiral to pinpoint where students may have difficulty making clinical decisions. At all times keeping in mind that a student's skill development is also influenced by their prior understanding and also by the setting, the client, the task, the educator's skills, the available resources and the other myriad of events that might be taking place at the same time.

### **Summary of Section Three**

Even though the client's presenting health issue directs the extent and tone of any educational event, clinical education programs overall are directed towards the student's experience of the professional practice setting so they can progressively attain the desired competencies expected of entry level practitioners. In the case of physiotherapy this includes competence in professional behaviour, communication of the capacity to continually reflect on and improve practice, assess the client, interpret results of assessments, develop, implement and evaluate the effectiveness of therapeutic interventions and make short and long term plans in a variety of health care settings. All of these competencies require the student to develop a number of scholarly qualities such as: inquiry, critical analysis and decision-making, application of theory to practice and evaluation of outcomes as previously mentioned.

The extent of any educational event is moderated by the educator's view of the client's needs and the student's capabilities, the client's consent, their health concern and by what they can contribute, the available resources and the client's expectation of health care. But, even if the student is not fully engaged in every aspect of a client's care, there are things they can learn from even the smallest involvement.

Each and every aspect of the management of a client's health concern relies on the student's and the educator's ability to apply their clinical reasoning. A student's success in clinical reasoning requires them to be adept in all the aforementioned scholarly skills. One of the most commonly used clinical reasoning models in physiotherapy is the five-step, hypothetic-deductive reasoning model which involves: data gathering (inquiry), formulation of a hypothesis (critical analysis), the application of an intervention (decision-making and theory to practice application) and evaluation of the outcome (reflection on outcomes). Educating the student in clinical reasoning necessitates the students' and educators' engagement in dialogue about the decisions made during a consultation with a client. In order for this aspect of clinical education to be achieved successfully, time must be allocated for regular student and educator

discussions. Ways in which this is managed in different situations is discussed in Section Four.

#### **Section Four: Clinical teaching strategies**

Given the above, clearly the inherently variable nature of clinical education creates a need for the clinical educator to have an assortment of educating processes from which to select activities that fit the clinical events. Even though specific examples of interaction between a client, educator and student are scarce in the literature, there is a substantial amount of information about what are considered to be effective educational practices in different types of clinical education situations. In one of the few studies undertaken in real-time, in-situ, Jackson, O'Malley, Salerno and Kroenke (2002) recorded (n=30) teaching encounters involving both students and educators. However, they did not seek the opinions of the participants as to the effectiveness of the teaching encounters.

A search of the health professional and medical education literature yielded a number of processes for educating about client care in the presence of the client which are presented below. Some of the methods focused on briefing the student before the clinical practicum, while others focused on the educator–student interaction during the presence of a client and others focused on talking to the student after the consultation had been completed.

The majority of methods focused on the student's ability to identify the client's major health concern. Other strategies focused on clinical reasoning and reflection on learning. That is, the focus of the activities is on the intellectualisation of clinical events. There is an absence of the specific inclusion of a review of the actual work a student has physically done to or with a client, as happens in physiotherapy, when the students engage in 'hands-on' therapy work with the client.

Taking a broad view of clinical education strategies, as early as 1992, Higgs, and also Hummell in 1997, wrote that student learning in experiential type situations is optimised by the assistance of an educator who can develop a relatively equitable educator–student relationship, thus, when appropriate, allowing the learner considerable autonomy. Similarly, and also taking a wide lens to the issue of feedback in physiotherapy education, Molloy and Clarke (2005) advised that when feedback is



given to students, it is an advantage to the situation if the educator does not act as 'expert', if they afford the student some agency to self-evaluate and to self-strategise. Autonomy and respect are key signals of successful educator–student relationships. More specifically, Lipsky, Taylor and Schnuth (1999) proposed twelve 'tips' for clinical education in the ambulatory care setting which included suggestions about how to encourage the student to voice their hypotheses concerning a client problem, diagnosis and management, their rationale for decisions made and to reflect on their performance.

The framework indicated a strategy for educator and student dialogue to be held possibly during, but certainly after, a client–student consultation.

Describing a summative style of discussion, Ferenchick, Simpson, Blackman, DaRosa and Dunnington (1997), Neher, Gordon, Meyer and Stevens (1992) and Raiser, O'Grady and Lori (2003), have all described the 'One-Minute Preceptor', which is a clinical education strategy proclaimed for its efficiency and brevity. The session involves the student interacting with the client and then presenting his or her findings to the clinical educator, away from the consultation room.

Describing a monitoring and de-briefing scenario, Guyatt and Nishikawa (1993) suggested an approach which involves the clinic educator observing the student during part of the consultation and then questioning them away from the consultation room. The framework proposed that the educator and student ought to engage in dialogue at two different times: during and after client–student interaction. They maintain that this allows the educator to focus discussion at those times on the assistance they think the student needs in their approach to examination of the patient relative to their hypotheses. The student is asked to 'think aloud' during the physical examination of the client, which allows the clinical educator to evaluate what features of the physical examination the student regards as important. That stage is followed by an educator–student critical questioning session, during which the student recounts the aetiology, diagnosis, treatment and prognosis.

Describing a three phase monitoring style of education, Roth (1996) put forward the Worksheet for Ambulatory Medicine (WAM), which can be used to track a student's understanding of the case. The WAM is a tool designed to enable the student to develop their own version of the patient's case records. The authors maintain it enables educators to observe a student's work and thinking across several cases in the same clinical session. By developing a set of explicit learning objectives and carefully

constructed educational and client care activities, WAM promotes opportunity for clients to give students feedback, it prompts students to clarify clients' fears and expectations and to negotiate a care plan with the client. The phases of the WAM suggest that the timing of educator–student discussions ought to be before and after a client–student consultation.

Describing a style of teaching during which both the educator and student consult with the client, Kurth, Irigoyen and Schmidt (1997) suggested the client–student encounter be divided into four components, each of which included a series of educator–student tasks.

The authors espouse that the framework provides students with a clear conceptual and behavioural framework. They state that this facilitates self-directed learning and helps clarify the student's level of responsibility in managing ambulatory care visits. Kurth et al's., (1997) framework for educator–student activities are described in Table 2.

Table 1 outlines four (4) phases of a client–student consultation and the associated educator–student interactions that may help clarify the student's level of responsibility and provide them with a framework for organising new information.

Another clinical education process that occurs in the presence of the client and which is followed by an educator–student de-briefing after the client–student encounter was presented by Heidenreich, Lye, Simpson and Louch (2000). Entitled, 'Teaching in the Patient's Presence' (TIPP), the framework outlines a process where students present findings in front of the client and the clinical educator, thus enabling the opportunity for gathering client feedback and for the client to have input into the learning and the care event. In this way, TIPP is considered to be both a student-centred and client-centred method of educating students at various clinical sites. In the presence of the client, educator–student discussion can focus on issues within the consultation such as asking the student for his/her diagnosis and, by assessing the student's reasoning, the educator is able to focus on the relevant educational points of the encounter. Then, away from the client's hearing, the clinical educator can point out to the student what they did correctly and what needs to be improved.

**Table 2. An approach for clinical teaching**

<b>Part</b>	<b>Student activities</b>	<b>Clinical educator's evaluation points</b>
<b>Preparation</b>	Review chart; summarise baseline information; develop tentative patient-care agenda; develop a learning agenda and discuss agenda with clinic educator	Can students synthesise, prioritise, and chart baseline information?
<b>Practice</b>	Interview patient; perform physical exam and present case to clinic educator	Can students present case in a focused, coherent manner?
<b>Evaluation and Feedback</b>	Observe clinic educator with patient and verify physical findings	Was the student's case presentation accurate and relevant?
<b>Synthesis and Analysis</b>	Discuss final assessment; close the visit; chart the visit and identify areas for learning	Can the student communicate effectively with the patient? Can the student write and/or organise pertinent notes?

(Adapted from Kurth et al., 1997, p. 692-3)

Proposing a three stage approach to clinical education during the presence of the client, Ramani, Orlander, Strunin and Barber (2003) and Ramani (2003) suggested a framework which is presented in Table 3 below, which advocates educator–student dialogue before and after several client–student encounters. And, in a more recent publication, Ramani (2003) presented a more succinct version of the above information in the form of key strategies for improving education undertaken at the bedside. Refer to Table 3 below. The strategies presented, proposed by recognised authors in the field, reinforce each other in what they perceive to be important regarding the timing of educating and the content of client, educator and student dialogue about health care events. The various frameworks indicate what the authors find valuable to do.

**Table 3. The stages of bedside teaching, detailed**

Things to do	Rationale
<b>Before rounds:</b>	
<b>Prepare</b>	Formulate goals for each session, read before rounds.
<b>Orient learners</b>	Learners need to be aware of the goals of the educator: demonstration of physical findings, communication with a difficult patient, professional behaviour, etc.
<b>Orient clients</b>	Bedside rounds need to be fitted into the patient's schedule and the patient needs to be oriented to the purpose of the rounds.
<b>During rounds:</b>	
<b>Establish environment</b>	A comfortable environment, where learners can ask questions without restraint and say 'I don't know' without feeling humiliated.
<b>Respect for learners</b>	Treat students and residents with respect; defer to them as primary caregivers for the patient; challenge intellect without humiliating.
<b>Respect clients</b>	Treat the patient as a human being, not an object of an educating exercise; be sensitive to how the disease has affected the patient's life.
<b>Engage everyone</b>	Educating to be catered to all levels of learners and everyone encouraged to participate.
<b>Involve clients</b>	Patient encouraged to correct and to contribute to details of their history; to ask questions about management and prognosis and to request that medical jargon is explained to them in lay-terms.
<b>Match educator–learner goals</b>	Educators should find out what learners would like out of the session and cater to their needs and deficiencies.
<b>After rounds:</b>	
<b>Debrief</b>	At the end of the session, learners should have time to ask questions, and get and give feedback; educators should ascertain that the session was mutually beneficial.

(Adapted from Ramani et al., 2003, p.387)

**Table 4. The stages of bedside teaching, in brief**

Stage of client/student interaction	Focus educating on:
<b>Pre-rounds</b>	Preparation, planning and orientation
<b>During rounds</b>	Introduction, interaction observation, instruction and summarisation
<b>Post-rounds</b>	De-briefing, feedback, reflection and preparation for next consultation

(Adapted from Ramani, 2003, p. 113)

It is fundamental that appropriate dialogue takes place so that a practitioner/educator's understanding, which stems from their experience, is accessible to students. The ideas presented above give a very strong suggestion of the expectation that during regular

educator–student dialogue before, during or after client care, educators and students will compare and critique each other’s knowledge. When the above frameworks are synthesised, these three steps indicate a very obvious premise. Seemingly, these three steps make it possible for the wisdom of experienced practitioners to be passed on to the newest members of the discipline.

#### Managing students fears and anxieties

Proposing a framework similar to the ones presented above for educating students, but for reasons related to reducing undue anxiety for the client, Ferenchick et al., (1997) suggested that, as much for the student’s sake, as well as for the client’s wellbeing, it is a positive educative strategy for the educator and student to engage in discussion prior to each episode of client care. This ensures the student is aware of potentially anxiety-provoking conditions for the client such as sensitive points in the case or in the history of the client.

Focusing once more on students, over a decade ago Boud and Edwards (1999) established that students have issues which cause them stress and any supervision strategy needs to deal with the student’s tension in their new role of being both a student and a therapist while performing professional tasks competently. In studies related to students’ anxiety, Jolly (1999) and Yong (1996) both identified that the clinical setting can be overwhelming for students and they can have reservations about their adequacy for clinical practice. The notion was explored by Kleehammer and Keck (1990) as well as Meyers (1995) who said that students have anxieties around fear of making mistakes, fear of failure, their lack of skills and their ability to communicate with clients. The same authors also said that high levels of student anxiety arise from the initial clinical experience in a new clinical learning setting, negative interactions with the clinic educators, the correct application of procedures, being watched by educators, difficulties with critical thinking, time management, communication, a fear of failure and dealing with very sick people.

Additionally, Cooke (1996) found that when nursing students, prior to their clinical practice sessions, were asked to anticipate difficult or challenging clinical situations, they placed ‘type of client’ fourth on their list of concerns. However, after their clinical practicum, the same students placed ‘type of client’ first on the list of things they found challenging.

The increase in the ranking of clients on the list of students' concerns infers that students found dealing with clients more difficult than they had initially anticipated. It seems it superseded what they had initially placed first: the term 'reality bites' comes to mind.

More recently, Remedios and Webb (2005) confirmed these opinions when they reported that on occasions students find clients difficult to manage, they find terminology difficult at times, as well as issues such as understanding the cultural nuances of clinical situations.

Undoubtedly, moments of educator and student discussion are opportunities for giving and receiving feedback. It can be argued that the frequency, the timing and the content of discussion between clinical educators and their students has a significant bearing on reducing student anxiety and this may in turn have a significant impact on reducing any client unease. Both of these factors potentially affect the student's positive perception of the education experience and the client's clinical outcome.

#### Providing students with feedback

In any setting, receiving feedback is, according to O'Sullivan et al., (2000), critical to increasing a student's confidence and sense of self-competence. In essence, feedback ought to provide students with information on their actual performance relative to the intended goals of the educational event (Titchen and Binnie, 1995). Feedback is designed to encourage learning, to improve performance and to motivate students. In clinical education, the giving of feedback allows the clinical educator to manage the student's care of the client. Hence feedback in clinical education impacts on the client's well being as well as the student's education.

However, according to Rosie and Murray (1998), some clinical educators think that they are too busy to discuss things with students and that clinic sessions are not the time for reflection. In contrast, Kneebone, Kidd, Nestel, Asvall, Paraskeva and Darzi (2002) affirmed that students highly value immediate feedback after observation of their work. It is thought to be timely feedback, and the subsequent promotion of reflective practice may add significant value to a student's learning from any experience they have.

It can be argued that student's perceptions of the educational quality of an experience is related to the feedback they receive on their actual work and thoughts. This is supported by studies undertaken in the last decade that showed that feedback is an aspect of clinical education that is highly regarded by students and is seen by them as an indication of the educational quality of the setting (Boendermaker, Ket, Dusman, Schuling, van der Vleuten and Tan, 2002; Chur-Hansen and McLean, 2006; Daelmans et al., 2004; Ferenchick et al., 1997; Hummell, 1997; Irby, 1994; Kilminster and Jolly, 2000; Myers, 2001; O'Sullivan et al., 2000; Raiser et al., 2003; Torre et al., 2003; van der Hem-Stokroos et al., 2003).

The importance of clinical educators knowing how to give feedback was noted by Bennett, (2003); Bergman and Gaitskill (1990); Kilminster, Cottrell, Grant and Jolly, (2007); and Mackenzie, 2001. Further, the proposition that students highly value being provided constructive feedback, was made by Bennett (2003); Bergman and Gaitskill (1990); Chitsabesan, Corbett, Walker, Spencer & Barton (2006); Torre et al., (2003); and van der Hem-Stokroos et al., (2003).

In addition, O'Sullivan et al. (2000) reported that students tend to value close supervision of their work; they like being able to ask the supervisor questions. It seems nothing has changed since a decade ago when Hummell (1997) claimed that students value the chance to learn practical skills, timely feedback, seeing clients in the natural context and having enthusiastic educators.

With all of that said, Dent (2005) clearly demonstrated in his organisational framework, presented earlier, that it would be uncommon for clinical educators to always be present during an entire client–student consultation. This has the potential to inhibit the quality of the feedback the educator can offer the student. Even if the educator is not present, feedback can be given by anyone involved in the situation, especially the client. The clinical practicum is the principal education setting in which authentic clients, in a real-time situation, can be used as a source of feedback to students about their work. Only during the clinical practicum can students or educators collect immediate and educationally-oriented feedback from clients about how the student's knowledge, skills and abilities impact on the actual recipient of their care. If feedback from clients is actively sought, the student may more fully comprehend the effect of their professional skills in the health care context. It can be argued that well thought-out feedback from the client might significantly reinforce the student-centredness of the educational event. This research study examines this area of practice.

### Students' views on clinical teaching strategies

Students find that opportunities to dialogue with their educator to be a critical aspect of clinical education. For instance, Saarikoski, Leino-Kipi and Warne, (2002) conducted a comparative study of different groups of nursing students from the United Kingdom (UK), and from Finland. They found that the Finnish students evaluated their clinical practicum and educators more highly than their English counterparts. It was thought that higher satisfaction was related to the higher frequency of student–educator meetings.

However, it would be incorrect to presume that all educator–student dialogue has some educational value for the student because in some instances it may be counter-productive to the student's progression. Students need to feel they can ask the educator questions and not feel embarrassed to do so. Moir (2003) suggested that success, in the educational sense, depends on the student identifying a learning problem and feeling secure enough to come to the educator for help. Yet Rothstein (2002) wrote that students can sometimes feel like they are being judged rather than being fully engaging in talks with their educators.

When students are exposed to real situations where clients have health concerns it was found that such learning helped them link theory to practice because of the additional verbal, visual and auditory experiences. This made learning more meaningful according to Bell, Boshuizen, Scherpbier and Doran (2009). Putting the situation in context, Schuster, Fitzgerald, McCarthy and McDougal (1997) claimed that clinical educating is multi-dimensional and requires an appreciable amount of time if it is to be managed well.

This may not always be possible or, sometimes, the mechanism of how to do this might be unknown. Martin et al. (2004) and Moore et al. (2003) suggested that good planning for clinical educating and clear briefing sessions can facilitate greater student learning and involvement. This was raised by Cooke (1996), who wrote that the assistance of the clinical educator in preparing students, by providing instructions before and during their difficult experiences with clients, greatly assists them in learning to deal with a variety of clients and their needs. Clearly, given the complexity and the inherent risks of the clinical learning situation, a student being able to communicate openly with their educator is the highest possible aspiration any educator could have.



## **Summary Section Four**

The various processes and practices from different authors indicate what they find valuable in regard to the timing of educating and the content of educator and student dialogue about health care events. The ideas presented above signal the significance of arranging educator–student dialogue before, during, or after client care when educators and their students will compare and critique each other’s knowledge. Moments of educator–student dialogue are key incidences where it is possible for students to learn the acumen of experienced practitioners in their discipline.

Other educators in the clinical education setting are the clients. Only during the clinical practicum can students or educators amass immediate and educationally-oriented feedback from clients about how the student’s knowledge, skills and abilities impact on the client.

This is an important educational strategy because if feedback from clients is actively sought, the student’s learning may potentially be enhanced significantly and to do so might reinforce the student-centredness of the educational event at the same time as reinforcing the client-centredness of clinical education and the health care event. Without doubt the most essential elements as far as education is concerned are the creation of an education environment which allows the student to feel comfortable in discussing their thoughts openly with the educator. The points raised indicate where the study being undertaken will add significantly to understanding client–educator–student dynamics in the learning situation.

## **Section Five: The clinical educator**

Practitioner/educators have a complex role within their profession. Whether referring specifically to clinical education or to experiential learning situations in general, the multifaceted role of the educator has been described as a lecturer of clinical and practical skills, a role model, mentor, pastor or coach (Fry et al., 2005; Harden and Crosby, 2000). Apart from their educative role, the practitioner/educator is also expected to do research and administer and manage their own client list (Pugsley and McCrorie, 2007). Plus, according to Hesketh, Bagnall, Buckley, Friedman, Goodall, Harden et al., (2001), to be a lifelong learner means they must also participate in their own professional development to keep up-to-date with their practice.

The complexity of the nature of the role was captured early on by Romanini and Higgs (1991) who stated the clinical educator's teaching–managing role spreads across three stages of the clinical education program. They described the three stages as:

1) preparation of the program, 2) implementation, and 3) evaluation and development.

Within those stages, they argued, the educator needs to manage the overall program, the tasks undertaken, the relationships among the group of workers and students, the student's individual development and the environment. That means the educators are given a mandate to manage the physical, social and personal environments within and around which the educational setting is enmeshed.

It is surely satisfying for the administrators to know that studies from across several disciplines emit a strong signal that good clinic educators have a major influence on the student's learning (Atack, Comacu, Kenny, LaBelle and Miller, 2000; Griffith, Wilson, Haist and Ramsbottom-Lucier, 1997; Landridge and Hauck, 1998; Mulholland, Derdall and Roy, 2006; Roop and Pangaro, 2001). For that reason, it would be expected that clinical educators are revered by their disciplinary counterparts and acknowledged for the extra effort they make to contribute to the development and growth of their profession. Yet, the literature reveals otherwise. Clinical educators in different health professions repeatedly report that they feel undervalued in their role, unsupported and definitely feel they deserve more recognition (Busari, Scherpbier, van der Vleuten and Essed, 2000; Doubt et al., 2004; Hendry, Kawai, Moody, Sheppard, Smith, Richardson et al., 2006; McAllister and Moyle, 2006; Skeff, Brown and Irby, 1997; Spencer, 2003; Stark, 2003).

In medicine, Doubt et al. (2004) claimed that some practitioners do not feel capable of taking a role in education. The private practitioners cited their own lack of expertise in educating and supervising as a deterrent to their participation in undergraduate education. These authors found that practitioners felt disconnected from the university. However, they noted that this could be overcome by regular communication with the university. Whether or not physiotherapy clinic educators share these sentiments is yet to be determined.

Without a doubt clinical educators need to have some kind of preparation for their multifarious and significant roles (Higgs and McAllister, 2007). Yet, there appear to be two widely held perceptions among clinic educators regarding their need to further develop their skills and understanding of clinical education. On one hand, the view is that learning to educate is a waste of time. On the other hand, it is often declared that

practitioners are too busy with clinical work to learn how to educate others. To date, the literature clearly states that when practitioner/educators attend professional development activities about clinical education, they find such activities beneficial (Cottrell, Kilminster, Jolly and Grant, 2002; Fontaine and Pullon, 2000; Gibson and Campbell, 2000; Mackenzie, 2001; Notzer and Abramovitz, 2007; Sutkin, Wagner, Harris and Schiffer, 2008). It is reasonable to presume that a lack of funding/financial return for work would have a significant impact on some practitioner/educators' willingness to dedicate time and money to engage in professional development activities to improve the work they already do of their own free will.

On one hand, and with consideration of practitioner/educators' own learning journey, Higgs and McAllister (2007) promoted the idea of the educator engaging in professional development that includes activities associated with them developing a sense of self, a relationship with others, a sense of being a clinical educator and having a sense of agency about the same. This includes activities that allow the practitioner/educator to develop a semblance of self-analogy as a clinical educator. On the other hand, a number of studies, which are referred to below, have shown that clinical educators can benefit from having a broad knowledge clinical education theory, to help them find the right balance between instructional or didactic approaches to educating and learning but, also, to have a educational approach suitable for managing experiential learning scenarios and adult learning situations. That is, clinical educators can benefit from having skills sufficient to allow them flexibility in their educating strategies that accommodates the setting, the student's level of skill and learning needs, the client's health concern and the client's acceptance of the student's involvement in their care.

More specifically, and more recently, Rodger, Webb, Devitt, Gilbert, Wrightson and McMeeken (2008) advocate that preparation for clinic educators should include three (3) elements of scholarship:

1. What is known about the role and the attributes of effective clinic educators and how to apply appropriate learning theories.
2. How to plan, implement and facilitate learning in a clinical setting.
3. How to apply sound principles and judgement in the assessment of clinical performance and how to evaluate the learning experience and to reflect on experience to formulate future action plans.

On investigating theoretical papers and studies from across the different health professions it is clear that there is a resounding sentiment that it is valuable for clinical educators to have a wide skill-set ranging in a plethora of topics. These are presented in Table 5 below, which shows what the literature on the subject states and the names of the authors.

**Table 5. The skills and knowledge of educative processes required of clinical educators.**

<b>Skills in</b>	<b>Authors</b>
a) planning, facilitating and managing	Bennett, 2003 Hesketh et al., 2001
b) demonstrating awareness of effective educational processes such as:	Kilminster et al., 2007
<ul style="list-style-type: none"> <li>• knowing the role of the educator in health services and universities</li> <li>• educating principles, theory and skills</li> <li>• appraising learning styles</li> <li>• questioning techniques and assessment and appraisal of students' skills and needs</li> <li>• how to give feedback</li> <li>• educating in the dynamic clinical setting</li> <li>• educating small groups</li> <li>• educating in the presence of the client</li> </ul>	Hesketh et al., 2001  Gibson and Campbell, 2000 Hesketh et al., 2001 Mackenzie, 2001 Bennett, 2003 Bergman and Gaitskill, 1990 Mackenzie, 2001 Bennett, 2003 Bergman and Gaitskill, 1990 Kilminster et al., 2007 Mackenzie, 2001 Bennett, 2003; Hesketh et al., 2001 Gibson and Campbell, 2000 Hesketh et al., 2001 Bennett, 2003
c) developing and working with learning resources, being aware of appropriate attitudes, ethical and legal matters and applying evidence-based medicine in clinical educating	Hesketh et al., 2001
d) evaluating courses and undertaking research in education and understanding the need for personal development regarding educating	Hesketh et al., 2001

On the issue of how and when educators ought to supervise and when they ought to educate, Lipman and Deatrick (1997) suggest that students are known to have difficulty maintaining a broad focus and to think critically about the information collected from the client, and they can tend to formulate a decision about a diagnosis too early.

Thus, the clinical educator who allows a student time to process their thoughts and gives encouragement to cascade decisions before coming to a final decision is considered to be implementing best practice. However, a student having the clinical educator present at all times is not always considered the best practice. For instance, Hummell (1997) states that close supervision is not always the best practice because, on the occasions where their clinic educator does not immediately assist students, they tended to become more self-reliant and independent problem-solvers.

Over a decade ago, Hummell (1997) said that independent problem solving is considered to develop the student's sense of competence, and it serves to reassure them that their preparation for clinical practice has been adequate, and that they were indeed developing skills that are needed in practice. Obviously, the reverse may also be true and this has implications for building confidence and developing relationships with the client. Clearly the clinical educators' task is complex and requires critical analysis of a student's skill and to simultaneously match that with critical analysis of a client's health concern.

To summarise, the writings of the above mentioned authors indicate that many of the different health disciplines are united in their view that the key to success in clinical education is for the practitioner/educators to have an acceptable level of capability in each of the knowledge and skill areas listed above. In reality, it is unlikely that many of these volunteers have the set of capabilities, yet so many willingly participate year after year.

Over two decades ago, Best (1988, p. 211), when referring to physiotherapy, said, 'Many supervisors are delegated with the responsibility for students with little preparation for the task, and in some cases the responsibility is given to new graduates.' It is timely that, in this study, an investigation be undertaken of whether or not the current situation has changed since Best's claim 20 years ago.

### Teaching characteristics of clinical educators

Exactly what constitutes desirable characteristics and behaviours of clinical educators has been the subject of many studies and theoretical discussions. Sometimes the studies have included mainly the students' views and sometimes also the educators' and faculty members' views. While the majority of the studies were related to nursing, they are, nevertheless, applicable to health professional education in general.

The effective behaviours of clinical teachers have been explored by single-focus, retrospective studies mainly undertaken in nursing. Knox and Mogan's (1985) study of clinical teaching in nursing explored the perceptions of faculty, students and graduates of the importance of 47 clinical teaching behaviours (Nursing Clinical Teacher effectiveness Inventory, NCTEI) and found although there were differences between students in different years, the students across the board, as well as faculty and graduates, held similar perceptions of what was important. Their study suggested that students in junior years rate teaching behaviours differently than senior year students. Faculty and graduates highly rated 'nursing competence', whereas senior students rated that category lower in their list of desirable characteristics and students in junior years rated personality highest.

Nehring (1990), and also later Kotzabassaki, Panou, Dimou, Karabagli, Koutsopoulou and Ikonomu (1997), repeated the aforementioned study in nursing, using the NCTEI. These studies found that faculty and students (graduates were not included) agreed that the distinguishing characteristics of the 'best' clinical teachers were being a good role model and encouraging mutual respect. Sieh and Bell (1994) also repeated the study, engaging students and faculty involved in an associate degree and found similar results.

Benor and Leviyof (1997) also used the NCTEI to explore the views of students at different nursing schools, each of which used different curricula. They found the ability to evaluate the students' work and the educators' nursing competence to be the two most highly valued skills. This was followed by a preference for instructional skills and interpersonal skills. Personality received the lowest ranking. Junior students, like those surveyed in Knox and Morgan (1987), preferred the clinical teacher to have good skills in evaluating their work. Exploring students' and clinical educators' perceptions within Australian nursing education, Woo-Sook, Cholowski and Williams (2002) found interpersonal relationships were the most highly valued characteristics of clinical educators, and that the educators' 'personality' was of least importance. All of the

aforementioned studies attempted to discover what teaching characteristics were valued by stakeholders. They did not explore whether particular groups of clinical educators displayed those characteristics or what impact their presence or absence had on the learning environment and the students' progress.

In contrast, medical clinical educator behaviours were explored as they occurred in real-time and in-situ by Price and Mitchell (1993). They explored *how* clinical educators carry out their teaching role. The study was designed to identify a way to help clinical educators improve their teaching. Using a predetermined set of criteria, it involved observations undertaken by the authors of bedside teaching sessions, after which the individual clinical educators received feedback. The criteria several dimensions: the environment; the degree of intellectual challenge and degree of integration; the logical structure of the teaching session; the quality of their teaching skills; and modelling of professional skills and attitudes. The educators found the observations and feedback valuable. The students' views were not sought, yet it is the students whose learning can be directly affected by the way in which the clinical educators undertake their educative role.

Showing a close correlation with the NCTEI, again focusing on nursing, Mogan and Warbinek (1994) set out to establish a range of observable clinical teaching characteristics, to identify indicators of those behaviours and to develop an audit tool to record the relative frequency of those behaviours. This resulted in the development of a tool called Observations of Nursing Teachers in Clinical Settings. The tool explored: educators' questioning method, response style, methods of giving feedback, teaching skill, methods of demonstration, interaction with client and family, and interaction with other members of the health team. This tool was designed for other educators to collect data; it did not seek the views of either students or clients.

In summary, the literature from Landridge and Hauck (1998), O'Sullivan et al. (2000), Thornton and Chapman (2000), and van der Hem-Stokroos et al. (2003), clearly showed students value a clinical educator who allowed and encouraged them to take an active role in client care. Jarski, Kulig, and Olson (1990) reported that students appreciated learning environments that were based on adult learning principles. Moreover, as early as 1992, Higgs claimed that conditions promoting adult learning included, but were not limited to, freedom, autonomy, and an emphasis on abilities and experiences. Higgs goes on to say that student-centred learning integrates mutual respect, educator support for the integration of theory, actual practice and reflection on

practice. These conditions almost mirror those of Kolb's Experiential Learning Cycle presented earlier and they also mirror the extensive discourse on this matter as seen below. A consensus of views of what constitutes ineffective behaviours of educators, along with what educator characteristics are known to enable and enhance student learning is presented below in Tables 6 and 7 respectively.

**Table 6. Ineffective clinical educator behaviours.**

Theme	Author
<b>a) The worst clinical educator is one who cannot display that he/she is able to:</b>	
• direct students to useful literature	Kotzabassaki et al., 1997
• use self-criticism constructively	Yeates, Stewart Barton, 2008
• correct student's mistakes without belittling them	Yeates et al., 2008
• demonstrate empathy	Mulholland et al., 2006
• avoid favouritism	Yeates et al., 2008



**Table 7. Enabling and effective clinical educator behaviours.**

Theme	Author
<p><b>a) The exemplary clinic educator is one who demonstrates that he/she:</b></p> <ul style="list-style-type: none"> <li>• is a good role model</li> <li>• has good clinical knowledge and professional competence and confidence</li> <li>• is dynamic and enthusiastic with a passion for teaching</li> <li>• has good skills in communication, listening and is keen to develop rapport</li> <li>• is able to give clear goals and objectives for student to follow</li> </ul>	<p>Bennett, 2003; Mulholland et al., 2006 Prideaux, Alexander, Bower, Dacre, Haist, Jolly, et al., 2000 Bennett, 2003; Bergman and Gaitskill, 1990; Mogan and Knox, 1987 Mulholland et al., 2006; Ramani and Leinster, 2008; Yeates, Stewart &amp; Barton (2008). Bennett, 2003; Ramani and Leinster, 2008; Yeates et al., 2008 Bennett, 2003 Bergman and Gaitskill, 1990 Chitsabesan, Corbett, Walker, Spencer, and Barton, 2006; Prideaux et al., 2000; Yeates et al., 2008 Ramani and Leinster, 2008; Yeates et al., 2008</p>
<p><b>b) The educator who shows that he/she:</b></p> <ul style="list-style-type: none"> <li>• enjoys the role</li> <li>• employs client-centred behaviour</li> <li>• has confidence in, and respect for students</li> <li>• has an open and approachable attitude</li> <li>• is a person who is organised, prepared, and who is interested in the learning process</li> <li>• can modify their educating in response to feedback</li> <li>• relates each client–student encounter to other similar encounters</li> </ul>	<p>Nehring, 1990 Yeates et al., 2008 Bennett, 2003; Bergman and Gaitskill, 1990 Bennett, 2003 Bennett, 2003 Yeates et al., 2008 Boendermaker et al., 2002</p>
<p><b>c) The educator who has the knowledge, skills and abilities to:</b></p> <ul style="list-style-type: none"> <li>• make practice visible and to explain practice to students</li> <li>• facilitate students' learning activities</li> <li>• enable students to participate in client care, to have hands-on experience</li> <li>• create a climate of mutual respect</li> <li>• provide constructive feedback</li> <li>• ask questions to enhance reflection</li> </ul>	<p>Prideaux et al., 2000 Bennett, 2003 Mulholland et al., 2006 Yeates et al., 2008 Bennett, 2003 Bennett, 2003; Bergman and Gaitskill, 1990 Chitsabesan et al., 2006; Torre et al., 2003 van der Hem-Stokroos et al., 2003 Boendermaker et al., 2002</p>
<p><b>d) The educator who is realistic in their expectations of students are better able to:</b></p> <ul style="list-style-type: none"> <li>• assist students without taking over</li> <li>• help students reach their potential</li> <li>• demonstrate that they reflect on the way they practice and who put effort into their educating tasks</li> <li>• draws on multiple forms of knowledge so they can target teaching to the learner's knowledge level</li> </ul>	<p>Atack et al., 2000 Mulholland et al., 2006 Worley et al., 2006 Ramani and Leinster, 2008</p>

Very recently, Ernstzen, Bitzer and Grimmer-Sommers (2009) reported what physiotherapy students and clinical educators perceived to be the most important and effective activities to facilitate learning in the clinical setting. These were: 'demonstrations of the patient management, individual discussion with educators, immediate and verbal feedback and both formative and summative assessment'. Clearly their findings are consistent with what has been said earlier in this chapter about educational process, educator–student discussions and the enabling characteristics of clinical educators.

### **Summary of Section Five**

In summary, the conceptualization by the clinical educator of what is important in the supervisory process, and what it is important to teach, will govern their activities and behaviour. The writings of the above-mentioned authors indicate that many of the different health disciplines are united in their view that the key to success in clinical education is for the practitioner/educators to have an acceptable level of understanding of educational theories and to have capability and skills in organising, understanding students, and managing the learning environment. Students are also clear about what it is they value about their clinical educators and there is a close alignment between what students want and what preparation numerous authors recommend and what clinical educators know or ought to know how to do. In reality, it is unlikely that many of the volunteer practitioner/educators have that full set of capabilities, yet so many willingly participate year after year.

This investigation explores educators' and students' perceptions of clinical education. As well, through observation, I explore what actually occurs in clinical education regarding demonstration of effective and ineffective clinical educator characteristics, the nature of feedback and then make comparisons with what the literature states is effective educational processes and the timing and content of educator–student discussion.

### **Identifying the gaps in the literature**

This literature review exposed several themes of importance to this study. It has been shown that the client–student consultation requires the student to be adept with multiple skills that need to be engaged simultaneously. Fundamental to the

development of the required skill set, in the case of physiotherapy, meaning the desired competencies of entry-level physiotherapists, is the student's ability to reflect on practice and to change practice in accordance with the discovery of new knowledge. These are central tenets in Kolb's Experiential Learning Cycle. Yet, Kolb's cycle does not overtly make explicit how the client in the health care event contributes to the student's learning.

This could be regarded as a gap because client input and subsequent satisfaction are critical to the ongoing association between any practice setting, any practitioner/educator and a university. If clients think the care given by students is not advantageous to them, then it is likely they will cease to attend the clinics where students are trained, or they will exercise their right not to be seen by students at all. It is the practitioner/educator's responsibility to manage educational situations so that a student's learning needs are met and client's are satisfied with the level of care they receive with students involved in their care.

However, irrespective of what one clinical educator may prefer to do, typically, the circumstances of the client's health issue, the setting, the resources and the student to educator ratio, the educator's skills in the education processes and the student's skill level are key drivers to the type of supervision and what student-centred education is possible. Success in clinical education depends on the practitioner educator's awareness of strategies for organising a student's work in any professional placement settings so they learn to become competent. This includes a number of scholarly qualities such as: inquiry, critical analysis and decision-making, application of theory to practice and evaluation of outcomes.

Even if the student is not fully engaged in every aspect of a client's care, there are things they can learn from even the smallest involvement. Educating the student in clinical reasoning necessitates the educator and student in engaging in dialogue about the decisions made during a consultation with a client. In order for this aspect of clinical education to be achieved successfully, time must be allocated for regular educator and student discussions.

This literature review exposes various processes and practices from a range of authors. It indicates what the authors find valuable to do in regard to the timing of educating and the content of educator and student dialogue about health care events. When collated, their ideas signal the importance of arranging educator–student

dialogue before, during or after client care. However, it is without doubt that the most vital element of clinical education is the creation of an education environment which allows the student to feel comfortable in discussing their thoughts openly with the educator.

Direct supervision has a positive effect on both client outcomes and on student skill development (Kilminster, Cottrell, Grant and Jolly, 2007). Further, tailored, constructive feedback promotes problem-solving and critical thinking skills (Carney et al., 2004; Irby, 1986; Kilminster, Cottrell, Grant, and Jolly, 2007; Kilminster and Jolly, 2000; Meyers, 1995; Modic and Harris, 2007; Schuster et al., 1997) and this is an essential element of a student-centred and client-centred educational framework.

In the discipline of physiotherapy, at the given university in this study, clinical education represents approximately thirty percent of the undergraduate curriculum. Thirty percent of the student's learning takes place in the unpredictable learning environment of real-time care for actual clients. This requires the clinical educator, who is often a volunteer, to manage the dual roles of educating and client care. How well they manage this is the quintessential question. This study set out to ask clients, educators and students how well this is done and to investigate issues arising from this type of learning situation. The idea of providing students with opportunities to experience life in the workplace is imbued with the notion that such an experience will promote knowledge development (Fry et al., 2005; Winch and Gingell, 2005). However, it is important to note that not all physiotherapist practitioner/educators will be committed to or have the capacity for excellent supervision of this kind. This may well result in the loss of important learning opportunities.

In physiotherapy, clinical education activities are structured around developing the client–student's physiotherapy consultation toward what the APC (2006) determined are the nine competencies expected of physiotherapists as outlined in the chapter. The degree to which different physiotherapy students have difficulty with these aspects of clinical thinking, reasoning and decision-making are not well understood. The contextualisation of the study presented in Chapter Two, along with the literature described in Chapter Three, reveals several key areas of importance to clinical education to which this study makes a contribution. First, educators are not the only sources of knowledge about practice; there are many other resources in the clinical environment from which students can learn. The clinical education setting is the principal educational setting in which the client can be used as an immediate source of

meaningful and educationally-oriented feedback about how the student's activities, skills and knowledge impacts on them.

Second, different models of organising clinical education are known to have different advantages and disadvantages and there is no gold standard model, nor is there expected to be. However, it is critical to note that, to date, there is only a limited amount of discussion of how to conduct educational events with the client throughout the entire client–student consultation and there are no studies of how effective these events are from the client/educator/student's perspective. Such omissions are an oversight in health education research. It is equally possible, because of the inherent variables in a given clinical educating setting, that discussion of some key issues are repeatedly missed and this may have consequences for the student's learning, client care and clinical outcomes.

The review of the literature provided an understanding of the breadth of the studies in physiotherapy clinical education, as well as studies undertaken in other disciplines. The literature search showed that no previous studies had explored actual student and clinical educator dialogue about client care; or client, educator and student verbal interactions; or undertaken observations of real-time, in-situ, clinical education scenarios or interviews with the participants. None of the earlier studies have explored the clients', educators' and students' views of the same event.

The literature review also enabled the framework for this study to be developed. It has been possible to identify what students value about clinical education, the characteristics they admire in their clinical educators and how highly they value feedback from their educators. In addition, the literature presented several models for student–educator dialogue about client care and recommended that such dialogue ought to take place at several intervals. It was also clear that the government and registration authorities, as well as members of the public, value the notion of client-centredness. Therefore, in developing this current study, it became clear that if a thorough understanding of physiotherapy clinical education was to be obtained then all of the abovementioned aspects of clinical education needed to be understood and all the participants' views needed to be canvassed.

The analytical framework developed here centres on identifying the clients' perception of students' involvement in their health care, the students' perception of the educational nature of clinical teaching, learning and care events, and the clinical educators'

perception of the same. With the overall aim of identifying what enables clinical educators to conduct the supervision and teaching of students in a manner that meets the needs of both the students and clients. The literature showed that there are three key areas of physiotherapy clinical education requiring exploration. Therefore, this study seeks to address those gaps by discovering and presenting the voice of those involved in physiotherapy clinical education. The aim of this study was to discover:

### **The students' voice**

- What do physiotherapy students value about clinical education?
- What difficulties do students encounter in clinical education?
- What are students' perceptions of clinical educators teaching behaviours?
- What is the tenor of the feedback students are given by their clinical educators?
- What are the students' perceptions of the timing and the content of the discussion they have with their clinical educator about episodes of client care?
- To what extent do students seek feedback from their clients?
- What do students understand by the term 'client-centred care' and do they feel they act in a client-centred manner?
- What actions do students take if they suspect their client has had an adverse clinical event?
- What are the students' views on the nature of clinical supervision and teaching?

### **2. The clinical educators' voice**

- To what extent do physiotherapy clinical educators engage in professional development activities related to clinical education?
- What are the educators' perceptions of the timing and the content of discussions they have with students about episodes of client care?
- What is the educators' rationale for their style of supervision and teaching?
- What do clinical educators understand by the term 'client-centred care' and do they feel they act in a client-centred manner?

### **3. The clients' voice**

- To what extent are the clients asked to give their informed consent to student involvement in their physiotherapy health care?
- Are clients satisfied that clinical education scenarios meet their health care needs?
- Are clients satisfied with the level of supervision of students' work?

The gathering of such information will highlight the efficiency of clinical education as it relates to student learning and client care. The analytical framework for this study centres on comparing the educators' and students' perception of clinical education events when students are involved in direct client care and, also, how clients perceive those events.

The student's perception of the educational nature of clinical educating, learning and care events, and the clinical educator's perception of the same is explored with a view

to identifying what enables clinical educators to conduct their educative activities in an appropriate manner so that both the students and clients feel it meets their needs.

The gathering of such information will highlight the efficiency of clinical educating related to student learning and client care, which is a central concern of accreditation boards, academic faculty and the designers of professional development activities for clinical educators. This will stimulate debate concerning the different educational processes and educator characteristics and these effects on learning. What is more, it will also contribute to scholarly discourse pertaining to the numerous possible effects of inviting the client to give unambiguous feedback on a student's work. The next chapter, Chapter Four, explains the methodological considerations and methods of data collection and analysis which underpinned the approach taken to the two parts of the research.

## **CHAPTER FOUR EXPLAINING THE METHODOLOGICAL CONSIDERATIONS AND PROCESSES ADOPTED**

### **Introduction**

This study focuses on the interaction between the members of the clinical education triad in undergraduate physiotherapy education. That is, the verbal interactions between the client, the educator and the student during a consultation. Chapter Three focused on the literature, which indicated most research undertaken in clinical education in the past. This has not taken place in-situ and it has not, to any great extent, included the client's voice. In fact, there is a dearth of information about what clients actually think, and how they engage with students during clinical education. This, therefore, was the chosen area for this present research.

The current study arose from my Master's study into health students' clinical education. During that study I asked senior level students at what stage during a consultation with a client did they (the students) most want the assistance of their clinical educator? The students were consistent in the stage at which they indicated they wanted assistance from the educator. The points they defined appeared to be the key decision points in any consultation. The students said they most required assistance after they had taken the case history, after the physical diagnosis, before and after the treatment or intervention, and prior to the client leaving the premises. From the time of my Master's study, I started to consider that perhaps these key decision points, inherent in any consultation, were where all health students would want to seek the advice of their clinical educator, especially if the student found the type of case new or difficult. If the clinical educator is aware of the student's learning needs, then they have the potential to organise their practice interventions accordingly and meet their educational objectives.

Furthermore, as noted in Chapter Two, apart from developing the students' clinical skills, knowledge and attributes, a central goal of any physiotherapy clinical education program is to develop within a student a disposition of client-centredness (APC, 2009). Client satisfaction with their experiences, in any particular students' education, will undoubtedly impact on their future participation in other student-education events. Therefore it is important, as part of any evaluation of clinical education, to explore the clients' experience and to determine if they feel their needs have been met. Knowing



such information can provide an indication of the client-centred nature of the educators' and students' clinical work. The exploration of these issues became the basis for my doctoral work. This study, then, encapsulates my experience as a clinician, lecturer, clinical educator and academic developer to draw on a facet of common learning events that has previously not been fully interrogated through formal research.

It is my professional philosophical stance that health disciplines must be mindful of including the clients' perspective in all educational activities. To not do so allows the possibility that students might graduate with a false sense of the client's view of their clinical skills and actions. Thus the student might develop a false sense of their clinical capabilities. Also, when the client's voice is not incorporated into student feedback, there is the potential to overlook information that might enhance optimal clinical outcomes.

Chapter Four presents the methodological considerations and processes that were undertaken in gathering and analysing the data. After describing how this study explores clinical education in a new way, my theoretical and epistemological considerations are explained, along with how the stakeholders were consulted, the rationale for the choice of data collection tools and the ethical considerations. Subsequent to those descriptions, this chapter is styled to present Part One: Stage One, which involved the interviews with two faculty members. Data collected in this part of the study informed discussion concerning the general physiotherapy clinical education milieu.

Part One: Stage Two describes the students' and educators' surveys. Data collected in this part of the study informed discussion concerning the students' and educators' views. This part of the study sought to capture the students' voice in relation to: what physiotherapy students value about clinical education; their difficulties; their perception of clinical educators' teaching behaviours; the tenor of the feedback they receive; the timing and the content of the discussion about client care; the feedback they seek from the client; their understanding of the term 'client-centred care' and whether they feel they act in a client-centred manner; the actions they take if they suspect an adverse clinical event; and their views of clinical supervision.

Part One of the study also sought to capture the clinical educators' voice regarding: the extent of their professional development in clinical education; the timing and content of their discussion with students about client care; their supervisory styles and their

understanding of the term 'client-centred care'; and the extent to which they feel they act in a client-centred manner.

This is followed by Part Two: Stage One, which constitutes the 'real-time' and 'in-situ' observations of episodes of clinical education, and then Part Two: Stage Two, which contains the subsequent interviews with clients, educators and students involved in the observed events. Part Two of the study sought to capture what actually takes place during clinical education events to enable comparison with the findings about events captured by the aforementioned surveys. In addition, Part Two was designed to capture the clients' voice in relation to whether they are asked to give their informed consent to student involvement in their physiotherapy health care; if they are satisfied that the clinical education scenario meets their health care needs; and if they are satisfied with the level of supervision of students' work.

Following on from there, the chapter concludes with a description of how the analysis of the data from each of these parts and stages was assembled, collated and analysed to answer the research questions:

1. What features of the clinical education process epitomize student-centred education?
2. What features of the clinical education process epitomize client-centred care?

### **Researching in new ways**

Previously, clinical education has been explored by gathering either the clients' or students' perspectives, *or* the students' and educators' perceptions via the use of mainly questionnaires and interviews, with very few observations of actual education events. Pertinent key studies in the field are described below in chronological order. An examination of these studies, presented in Table 8 below, illustrates the progression of depth of inquiry into personal perspectives of a variety of aspects of clinical education.

**Table 8. Chronology of studies into various aspects of clinical education****Year, Author and details**

**1985**, Knox and Mogan and later Mogan and Knox (1987) explored students' and clinical educators' views of clinical education, via survey. The Nursing Clinical Teacher Effectiveness Inventory (NCTEI). This was repeated by Nehring (1990), Benor and Leviyof (1997), Kotzabassaki, Panou, Dimou, Karabagli, Koutsopoulou and Ikonomu (1997) and also Sieh and Bell (1994) and Woo-Sook, Cholowski and Williams (2002). The survey asked participants to respond to questions related to the clinical educator's teaching characteristics such as: teaching ability, interpersonal relationships, personality, nursing competence, and evaluation.

**1993**, Price and Mitchell observed real-time clinical educators' behaviours while educating groups of students. Their observation tool explored the educator's behaviour in regard to the degree of intellectual challenge, the degree of interaction, the logical structure of the teaching sessions, the quality of teaching skills and their modelling of professional skills and attitudes.

**1994**, Mogan and Warbinek developed an observation tool to explore desirable and undesirable clinical teaching behaviours towards students. The focus was to collect evidence of their questioning methods, responding style, method of giving feedback, teaching skill, method of demonstration, interaction with the client/family and with the health team, their methods of giving feedback and interaction with clients.

**1995**, Cross used a questionnaire to explore students', tutors' and clinical educators' perception of the characteristics of an ideal physiotherapy clinical educator.

**1996**, Cooke, Galasko, Ramrakha, Richards, Rose and Watkins used a questionnaire to explore client's reactions to the presence of medical students during their consultations with their general practitioner.

**1996**, Jones, Oswald, Date and Hinds used a postal questionnaire to ascertain clients' attitudes to community based medical teaching.

**1996**, Vinson, Paden and Devera-Sales used work sampling: observations of the day to day activities of both non-academic and academic physicians to ascertain the effect of the students' presence during a consultation.

**1997**, Dunn and Hansford explored students' views, via a survey and by using focus group interviews, to ascertain staff–student relationships, clinical educator commitment, client relationships, the students' satisfaction and clinical hierarchy and ritual.

**1997**, O'Malley, Omori, Landry, Jackson and Krvenke used a questionnaire to explore clients' satisfaction with a consultation during which they had initially been seen by a trainee and then by the practitioner.

**1998**, Dahlgren used semi-structured interviews to explore physiotherapy students' client-centredness.

**1998**, Lynöe, Sandlund, Westberg and Duchecks used a questionnaire to explore clients' motives for participating in teaching situations.

**1999**, Devera-Sales, Paden and Vinson used semi-structured interviews to explore client's views of medical students' participation in their health care.

**1999**, O'Flynn, Spencer and Jones used a questionnaire to explore clients' experience of the consent processes for involvement in medical education.

**2001**, and later in 2002 and 2007, Chan used the Clinical Learning Environment Inventory (CLEI), a tool based on the theoretical framework in psychosocial education, to assess students' perception of the clinical learning environment.

**2001**, Freeth, Reeves, Goreham, Parker, Haynes and Pearson used a multi-method approach: observations and questionnaires with students, patients and clinical staff, to ascertain their perspectives of an interprofessional training ward.

**Table 8. *continued***

- 2001**, Westberg, Lynöe, Lalos, Löfgren and Sandlund used questionnaire to explore clients responses to being asked to give their informed consent altered if they were advised in advance that a student might be present during their gynocological consultation.
- 2002**, Haidet, Dains, Paterniti, Hechtel, Chang, Tseng et al., used a survey to explore medical students' attitudes to client-centred care and factors associated with client-centred attributes.
- 2002**, Jackson, O'Malley, Salerno and Kroenke made video-recordings of student and educator clinical teaching interactions to explore educators' teaching behaviours in an ambulatory setting in medicine.
- 2002**, Robertson, Gibbons, and Carter used a questionnaire to explore clients' views of working with students. They also used another questionnaire to explore students' and graduates' views of whether or not their clinical education program had been effective.
- 2003**, Bennett used two questionnaires to study educators' views of what qualities and abilities in clinical education they considered were important to possess and which grade of physiotherapist they think is best able to provide these to students.
- 2003**, Christie and Cross used a survey to investigate whether physiotherapy students preferred a client-centred or a professional-powered model of working.
- 2004**, Chipp, Stoneley and Cooper used a questionnaire to explore clients' views of their encounters with medical students.
- 2004**, Thistlethwaite and Cockayne used surveys to explore clients' view of being involved with medical students' education.
- 2006**, Haidet, Kelly, Bentley, Blatt, Chou, Fortin et al., used a survey to explore the views of medical students, working at nine different hospitals, on the client-centred characteristics of the learning environments.
- 2006**, McCarthy used a case study: interviews with clinical educators, to learn how they interpret, operationalise, document and teach client-centred care.
- 2006**, Xing and Long used a survey to explore clients' satisfaction and experience in an acupuncture teaching clinic. They explored: the main symptoms that prompted coming to the clinic, the benefits achieved by the treatment, the clients' views of the student practitioner, the supervisor and the supervision.
- 2007**, Kuan used a questionnaire to explore client's attitudes towards participating in clinical education.
- 2007**, Morris and Leonard used interviews to explore physiotherapy students' opinions on the value of client-centred attitudes and behaviours. That was, if their understanding of the rationale for a client-centred role for the physiotherapists had increased while working in a particular clinical setting.
- 2007**, Morris and Stew used semi-structured interviews and focus groups to explore the educational effectiveness of the 2:1 ratio — the student to educator ratio — of physiotherapy clinical education.
- 2007**, Tsimtsiou, Kerasidou, Efstathiou, Papaharitou, Hatzimouratidis and Hatzichritou used the Patient-Practitioner Orientation Scale to differentiate between client-centred and doctor-centred orientation in medical students as they progressed through the curriculum.
- 2008**, Haffleing and Håkansson used a questionnaire to explore client's views of consultations conducted by students, prior to seeing their general practitioner. Also, what clients perceived their teaching role to be.
- 2008**, Laitinen-Väänänen and Luukka's videotaped sessions of client-student interaction within care situations in order to explore the construction of various roles the client assumes during physiotherapy education.

This chapter explains the considerations and the rationale for the methodologies used to achieve the study goals. Before embarking on this research I explored the literature to find suitable methodologies. The choice of these methodologies and selection of tools was complicated by the many ways the study could have been undertaken. My search for suitable methods led me to several authors. One of the most significant texts I read was the work of Crotty (1998) who explained clearly that, in any research proposal, there are two questions to consider:

1. What methodologies and methods will be best used to explore the topic?
2. How do we justify our choice?

To explain further, Crotty (ibid) maintained that the justification of our choice relates directly to the question(s) we are attempting to answer and this follows from our assumptions about reality that we bring to our research. Once our assumptions are known, this then brings forth our theoretical perspective, which arches back into our understanding of how human knowledge is constructed and what kind of knowledge will be attained by our research. Only by knowing our theoretical perspective are we then able to develop our epistemology. Being aware of our personal starting points or assumptions is crucial.

**Assumptions:** I brought four assumptions to the current study which were derived from my personal experience, modified by the literature, the university's clinic manuals for physiotherapy educators (Physiotherapy Clinical Educators Manual, 2006), and the respective accreditation board documents (NSW PRB, 2010; APC, 2009). My overarching assumptions were that teaching behaviours make a difference to learning and that inviting the client to make a verbal contribution to clinical education will have a positive effect on learning outcomes.

More specifically, the assumptions that underpinned my processes and focus were as follows:

1. Physiotherapy clinical education activities were undertaken with the view to achieving the competencies expected of an entry-level physiotherapist.
2. During episodes of client care the physiotherapy clinical educator, as the facilitator of the student's learning, sought and judiciously used opportunities to develop students' clinical skills.
3. Clinical educators implicitly strived to manage the learning situation so that both students' and clients' needs were considered.
4. During a clinical practicum, while the consenting client was willing to contribute to the student's education, he or she expected a standard of care equal to, or better than, that which they would normally receive from a qualified physiotherapist.

**My theoretical perspectives:** The theoretical perspective I brought to the current research was interpretivism: “Interpretivism attempts to understand and explain human and social reality” (Crotty, 1998, pp. 66–67). Interpretivism is a theoretical perspective in complete contrast to that of positivism, which follows methods of natural science to identify universal features of society and to offer explanations and predictability. Crotty (1998, p.67) says that:

*The interpretivist approach... looks for culturally derived and historically situated interpretations of the social life-world.*

Through the use of a mixed method approach in this study, I believed that adopting such a perspective allowed more detailed gathering of data about the lived-experience of groups and/or individuals. The variety of data gathering methods enhanced the ability to collect different perspectives of experience, to interpret and explain human social experiences and ultimately make it possible to convey personal accounts of a phenomenon (Crotty, 1998; Denzin, 2009; Wall, 2007) so that new knowledge could be generated about clinical education in the health professions.

**My epistemological perspective:** The epistemological perspective I brought to the current piece of research was that of constructivism. I shared the view of Crotty (1998), Winch and Gingell (2005) and others that knowledge, truth or meaning is altered by our engagement in activities that challenge our existing knowledge and understanding. Meaning is discovered and knowledge is constructed by different people in various ways. Constructivism is typically considered to be associated with qualitative methodology, although the constructivist’s approach does permit the use of quantitative methods (Crotty, 1998). However, the use of the latter affects the claims made from the findings. Crotty states that the use of quantitative methods within a constructivist perspective eliminates the claims of objectivity, validity and generalizability and instead advocates trustworthiness and transferability and the drawing together of all sources of data to construct an understanding of the phenomena under investigation. Thus, the role of the educator is to assist the learner to find meaning, to construct knowledge, to discover his or her own truth and to apply the knowledge gained as they engage in future events.

All of the aforementioned elements governed my choice of methodological approach and the development of data collection tools and strategies. At first, the methodology I strongly considered was a purely qualitative enquiry, or a case study, as explained by

Patton (2002) and also Yin (2004). A purely qualitative approach would not have enabled me to gather data from a large number of students and educators. Similarly, one form of case study typically represented the views of a smaller number of participants than what I intended to include. Having noted that, 'the case' in this research is the phenomenon of processes of education within the triad. The methods in this research are mixed and enable the accessing of any number of participants. Moreover, in order to strengthen the usability of the data, I considered it appropriate to use mainly quantitative style surveys to gather the students' and educators' general reflections on their experience over a block, typically a month of clinical education. This was then followed by working with a sample of educators and students during in-situ, real-time clinical education and health care events to explore what actually took place on a selection of occasions.

For the reasons stated above I decided to adopt a mixed method methodology, using both qualitative and quantitative data collection strategies and tools in a non-experimental study (Patton, 2002; Wall, 2007). In doing so, I have endeavoured to gather a variety of perspectives on experience of clinical education in order to depict people's views of events, situations, conditions and relationships as they currently exist (Charles and Mertler, 2002).

Throughout this study the literature review has been on-going, with periods of systematic exploration. Together with a diary I kept of the research, the processes used enabled me to review, reconsider, readjust and reconfirm my methodological and analytical processes and reflections. In particular, the diary, which was kept systematically, became another form of data used to capture initial and developing ideas and strategies.

In retrospect, my views resonated with the work of Schatzki (2006), who explains any organisation "is more than what there is to it in 'real-time'" (p. 1863). He states that any organisation or department [such as a university or health service] embraces various practices, such as ceremonial practices, as well as various decision-making structures. Within any snap-shot of an organisation, he believes, the viewer ought to be mindful that the instant of analysis is preceded by events and is, at any one time, setting the foundations of other future events.

Therefore, in order to study an organisation, the analytical and evaluating lens ought to embrace four facts:

1. The actions constituting the practice.
2. The rules that the participants in the organisation observe or disregard.
3. The end-product of the organisation's actions, the purpose of the actions of the participants.
4. The nature of the work and interactions among individuals in the organisation.

All of these considerations ought to be understood by a researcher who is endeavouring to capture, interpret and describe events that are observed at a particular space and time. I believe my thirty years of experience in health professional education allowed me to bring such an understanding to any evaluation of clinical education practice.

### **Clarifying my perspective with stakeholders**

According to Patton (2002) it is the researcher's or evaluator's responsibility to be objective and unobtrusive. Further, a researcher needs to maintain neutrality while remaining unobtrusive and yet without being enigmatic. They also need to be supportive and transparent, diplomatic and understanding (Patton, *ibid*). At all times I strove to behave in the appropriate manner. My ability to be objective was strengthened by the fact that I am neither a member of the particular faculty, nor am I a member of the physiotherapy profession. My main interest was in exploring and explaining approaches to clinical education and, in order to do so, I used physiotherapy clinical education scenarios as an exemplar of contemporary health education practice.

To ensure diplomacy and that I captured the context and concerns of the members of the physiotherapy profession, I presented the research concept, the proposed methodology, as well as the findings to the members of the physiotherapy profession on several occasions. Interim presentations were given to Physiotherapy Clinical Educators' Groups and at University Faculty Research Higher Degrees fora. These presentations provided me with invaluable opportunities to receive feedback from the most relevant stakeholders. In addition, details of the study have been presented at several peer reviewed conferences listed in the front of the thesis.



## **Explaining the choice of data collection tools**

### Interviews with faculty

Interviews are a standard tool in qualitative methodology as they enable the researcher to explore the impact of the situation on each of the participants without being encumbered by language or literacy barriers. Interviews allow the participants to convey their perspectives in their own words, in their own time (Patton, 2002).

The aim of the initial stage of the study was to learn about the context and rationale for choices about the nature of professional placements from the Program Convenor and the Practice Education Coordinator's experiences of organising clinical placements for physiotherapy students. This knowledge was considered vital given that the Australian Physiotherapy Association's Annual Report (2006) claimed that the capacity to provide contemporary clinical placement experiences poses challenges for physiotherapy as a discipline. The report said:

*Up to 200 students may not be able to complete their clinical education programs due to a lack of clinical capacity. This will have a profound implication for the physiotherapy workforce. Demand for physiotherapists is already at an unprecedented level... (APA, 2006, p.19)*

Similarly, shortages of physiotherapy clinical placements was the purpose behind the study by Currens and Bithell (2000) which sought to learn organisational barriers to increased undergraduate clinical placement opportunities. The same topic has been the subject of editorials in national newspapers by MacNamara (2007) and also scholarly papers by McMeeken (2008).

However, it was not intended that the study explore the sensitivities around inclusiveness of client in learning events. Exploring the faculty perspective opened up the possibility that the voices of the members of the triad might be presented out of context of the wider circumstances in which the client receives physiotherapy care, in which the student learns and the educator works. It was therefore considered that faculty members could best provide the larger picture of the organisation of clinical placement education and provide context to the scenarios under examination in this study. The interview schedules for the academics are detailed in Appendix 4.

### Student and Clinical Educator Surveys

Surveys were distributed to students and their clinical educators. Surveys are known to be suitable for education research because they can provide reliable information, they can also be easily administered to large numbers of people simultaneously and

they are relatively economical and provide a type of anonymity (Patton, 2002). The latter was an important issue in this study because several cohorts of students were surveyed in order to get a large sample and it was thought they would be more inclined to make comments about their clinical educator if they (the students) were not able to be identified. Similarly, it was thought a more candid response would be achieved from the clinical educators if they knew students could not identify them.

It is widely perceived that questions can elicit a prescriptive response (Charles and Mertler, 2002; Patton, 2002; Wall, 2007) that, at times, can reflect discipline-specific or contextually-oriented terminology which is not meaningful to outsiders. Therefore, in order to counter the possibility, the language of the survey was kept deliberately generic. A large part of the survey asked participants to respond on a five point Likert Scale which is generally used to collect respondents' level of agreement or disagreement with a statement (Minichiello, Sullivan, Greenwood and Axford, 1999). Likert Scales are used to collect quantitative data allowing questions to be kept simple and straightforward so as to elicit a more natural and specific responses and such methods can be used to save respondents' time as well (Minichiello et al., 1999). The students' and clinical educators' surveys are presented in Appendices 5 and 6 respectively.

#### An Observation Audit Tool

The Observation Audit Tool (OAT) is generally a purpose built tool designed to capture what is observed in any situation (Patton, 2002). In this study the OAT was used to explore clinical education and health care scenarios involving clients, educators and students. The nature of the exploration undertaken by the use of the OAT was developed from my experience, the advice of faculty members and the literature, particularly the work of Murtagh (1997), Monekosso (1998) Makoul (2001) and Platt and Gaspar (2001). The aim of developing the OAT was to capture in a meaningful way the nature of client–educator–student verbal interactions. A similar picture could have been generated by video-taping educational and health care events but it was decided that to do so would have been invasive for the client. Further, there was no interest in capturing detailed information about their health concern. The interactions between the client, educator and student were the focus of the exercise. Therefore the OAT was considered to be less invasive and it facilitated the recording of the purely educational aspects of the scenarios. The Observation Audit Tool is presented in Appendix 7.

### Post-observation interviews with clients, educators and students

Interviews were offered to clients, educators and students. While it is acknowledged that long and protracted responses to interview questions can yield irrelevant data (Patton, 2002), and that interviews can be distorted due to personal opinions (Patton, 2002; Wall, 2007), in this instance the intent was to capture examples of personal opinions and emotions about the education and health care events observed immediately prior to the interviews.

Other methods of collecting such impressions of clinical education and care events may have been through surveys or written questionnaires (Patton, 2002; Charles and Mertler, 2002). However, it was considered that such methods could not be tailored to the previous observation of the event, nor to the immediacy of the event.

Educator and students aside, with consideration given to the variety of clients who might have participated in this study, it was thought that interview methods could be tailored to each individual and circumstance. In my view and in the views of my supervisors, written questionnaires would also have restricted further investigation of the first response to the questions asked of each interviewee. The semi-structured interview questions for the client, educator and student interviews are presented in Appendices 8, 9 and 10 respectively.

### **Describing the participants involved in the study cohort**

As stated earlier, two members of faculty participated in the study, the Program Convenor and the Practice Education Coordinator. Other participants were third and fourth year physiotherapy students, their clinical educators, along with the various clients who attended clinics where the students were educated.

Third and fourth year students were specifically targeted because they were more likely to have a larger role in client care than their junior counterparts. Although there was no intention to match students with clinical educators, the cohorts of clinical educators were targeted because of their current involvement with the particular student cohort. This meant that the selection of students and of clinical educators was representative of stratified sampling according to Patton (2002). There was no reason to presume either the cohort of clients, educators and students would not share characteristics with others similarly involved in undergraduate physiotherapy education in Australia at the present time. In contrast, the observations of clinical education and health care

scenarios and the following interviews with clients, educators and students were examples of opportunistic sampling (Patton, 2002).

### **Explaining the general approach taken to data analysis**

The analytical strategy of the data collected from the study was guided by Charles and Mertler (2002), who provided explicit explanation of the detailed steps involved in managing a mixed method approach to research. In addition, the aforementioned diary, kept throughout the study, provided a trail of thoughts and developing concepts for analysis and interpretation, especially during the final stages of cross-checking data analysis. More detail of the data analysis is explained in the later sections of this chapter under the relevant stages of the study.

### **Gaining ethical approval for the study**

Since the study cascaded from Part One into Part Two, there were several phases to the ethics application with variation sought from the university committee when appropriate. Approval for the initial application involving the survey of students and educators was received from the University of Newcastle Human Research Ethics Committee on 22 September, 2003 (Approval No H-657-0903). Refer to Appendix 1. Later, in 2005, the study was amended to include observation of education events in various clinical learning environments, with subsequent interviews with clients, educators and students involved in those events. The variation was approved on 27th March, 2006. Refer to Appendix 2.

Also, in 2007, and in order to focus on physiotherapy students who were undertaking a clinical practicum at a regional hospital, it became necessary to seek ethics approval once more from the Area Health Service Human Research Ethics Committee. Approval was granted on 21 May, 2007 (Approval No. 07/03/21/5.11). More locally, permission to observe clinical education in hospital units was sought from the Heads of Physiotherapy Departments and their permissions were sent to me by email. Before being cleared, each of the aforementioned ethics committees and the respective Heads of Physiotherapy Departments asked for confirmation that the participants' rights would be respected. Final sample versions can be seen in Appendix 11, which is the Client's Participant Information Statement and Appendix 12, which is the Client's Form of Consent to participate in observations and interviews. The full

instruments were attached to the Ethics Application. The strategies that were implemented to ensure the rights of the clients, educators and students are detailed below.

## **Gaining informed consent**

### The participants' right to autonomy and voluntary participation

In each of the Participant Information Statements about the study, the three different cohorts were advised that their involvement was entirely their choice and they could withdraw at any time without giving a reason. They were advised that, if they decided to withdraw, all data relating to their participation would be deleted and they would not be disadvantaged in any way. No-one withdrew from the study.

### The participants' right to anonymity and confidentiality

Utilizing each of the Participant Information Statements about the study, the groups of participants were advised of the following:

- They were not required to identify themselves and therefore could not be identified in any reports arising from the research.
- Only the researcher would have access to the data.
- An experienced person, well versed in the ethics of research, would undertake the transcription of the audio-taped interviews.
- At the completion and presentation of the study, all computer files would be transferred to a USB drive, stored with the paper records and tapes in a locked cabinet in the faculty office for a five-year period.
- At the end of the five-year period the data on the USB drive would be erased, tapes destroyed and paper-based records shredded.

There was one exception to the above. Because it was necessary only for the clinical educators, who were willing to allow observation of their teaching, to provide the researcher with their name and contact number so observation/interview arrangements could be made, they were asked to give their name and phone number. No other names of participants were recorded or, if they were inadvertently, they were de-identified in the transcripts and reports. To further ensure privacy and confidentiality, rather than engage an external person, all audio-tapes of the interviews were transcribed by me.

### The participants' right to be protected from harm and to provide informed consent

In each of the Participant Information Statements about the study, the three cohort groups were advised there were no promises of benefit; nor were there any associated risks, such as damage to reputation or exposure to colleagues or peers. At no time was there any manipulation of the environment and each of the participants in the study went about their normal business. Even so, a few educators indicated they felt their status as a clinical educator may impact on the findings of the study. They were reassured, however, by further discussion. A few students also sought reassurance that their clinical skills were not being assessed during the observations.

As far as the clinical educator and student surveys were concerned, the return of a completed survey signified their consent to participate. Clinical educators were contacted by the university administration staff who emailed a Participant Information Statement about the research, specifically for the observations and interviews. When an educator indicated his or her willingness to participate, they were forwarded copies of the relevant Participant Information Statements for distribution to the students in their clinic. If the students agreed to participate, the same process was repeated with clients who were expected to attend on a day designated by the clinical educator.

On the day in question, Forms of Consent were signed by all parties before any observations of subsequent interview took place.

The appendices attached to the ethics application that followed the procedures of the study were:

1. Letter of Ethics Approval for the Research, 22<sup>nd</sup> September, 2003.
2. Letter of Approval for variation, 6<sup>th</sup> February, 2006.
3. Sample of two stages of qualitative data analysis
4. Interview questions asked of the University academics.
5. The survey questionnaire asked of students.
6. The survey questionnaire asked of clinical educators.
7. The Observation Audit Tool.
8. Interview questions to clients.
9. Interview questions to clinical educators.
10. Interview questions to students.
11. Participant Information Statement to clients about Observation and Interviews.
12. Form of Consent for clients about Observation and Interviews.

### **Describing the two-parts of the study**

This study took place between 2006 and 2008, and was carried out in two parts. Part One consisted of interviews with faculty and the student and educator surveys. By doing so, this set the foundation for Part Two of the study which consisted of observations of clinical education scenarios and interviews with the triad: the client, educator and student. In order to provide clarity, both Part One and Part Two have each been divided into two different stages, following the order in which they took place.

## **Part One: Stage One**

### Interviews with faculty

From the outset this study was grounded, from a professional viewpoint, by having discussions with faculty, the Program Convenor and the Practice Education Coordinator. Qualitative style questions were used to collect data from these two faculty members. In order to most efficiently utilise their time, I asked each of them if they would prefer a face-to-face interview or written open-ended questions. To provide context for the study, and based on my own experience and aided by information gained by the ongoing literature review, I was curious to learn about the processes for recruiting and retaining clinical educators, any difficulties experienced and what the university provided for their professional development in clinical education. I wanted to know how the placements were organised and if any particular education methods were used. The complete set of guiding questions is presented in Appendix 4.

The Program Convenor chose to be interviewed in her office, a quiet and suitable place for discussion. Although guiding questions had been prepared, the interview was discursive and I was able to ask her various clarifying, exploratory and confirming questions at strategic points of the interview. The Program Convenor was willing to participate in the interviews as she was keen to add another dimension to the study to ensure the wider context was represented. She was happy to discuss all the issues raised in-depth and her responses were audio-taped. The interview data were transcribed verbatim and returned to her for member checking (Krefting, 1990). She read the transcripts and agreed to the contents.

On the other hand, the Practice Education Coordinator preferred to give written responses to the same questions. Her responses were sent to me electronically and because they were so thorough there was no need to seek any clarification or confirmation, nor was there any need to transcribe the responses or to return them to her for member checking.

### Explaining the data analysis of Part One: Stage One

I manually compared both the Program Coordinator's and the Practice Education Coordinator's responses to the questions asked. These were then developed into broad themes presenting a background to the organisation of clinical placements and the recruitment and retention of physiotherapy practice educators at that particular university. The responses to interviews were in the first instance individually analysed manually for key themes and then the two interviews were compared in order to



determine similarities and differences and which responses depicted key issues in the most articulate manner. These were then organised into final themes and the subsequent report generated.

The findings from the two interviews helped set the scene, thus highlighting the constraints against which clinical education of undergraduate physiotherapy students takes place. This data, in addition to the findings from the literature, the analysis of physiotherapy clinic manual for clinical educators (2006) and the Accreditation Board documents (NSW, PRB, 2010; APC, 2009), together with my own experience, informed the second stage of Part One of this study, as described below.

### **Part One: Stage Two**

In the second stage of the study I formulated two surveys, one for the students and another for the clinical educators. The surveys were developed with the explicit aim of exploring the physiotherapy clinical education environment. The students' and educators' surveys were informed by the list of competencies expected of entry-level physiotherapists espoused by the APC (2009).

The student survey was a mix of quantitative and qualitative questions, whereas the survey for the educators was only quantitative. The structure and content of the questions used in the two surveys were discussed with the Program Convenor and the supervisors of this study to make sure the terminology was appropriate to physiotherapy and that it reflected the aims of their physiotherapy clinical education program. This ensured face and content validity.

Once the survey questions were complete, a hard-copy of each was pilot tested with students (n=2) and a clinical educator (n=1) from another health science discipline, in a different university, to ensure it had face validity, that it was understandable and accurate. Based on the feedback and experience in the pilot study, changes were made to terminology and to clarify meaning before the survey questions were finalised. The final surveys are presented in Appendices 4 and 5.

#### Explaining the structure of the students' survey

There were six (6) categories of questions in this survey. These included closed quantitative questions and open-ended qualitative questions which are explained below. Where appropriate, Likert scales offered five different response options related

to frequency of occurrences of teaching events: 'never', 'rarely', 'sometimes', 'often' and 'always.' The survey asked students to recall their most recent clinical placement and to respond to the questions asked with that experience in mind.

**Contextualising questions:** Questions 1–6 asked students to describe the clinical practice setting they most recently attended. These questions enabled comparisons to be made between physiotherapy education in different clinical settings, between year cohorts, ratios and the roles they took in client care.

**Exploring the characteristics of their clinical educators' and their own methods of feedback:** Questions 7 and 8 asked the students about the frequency with which they observed a list of teaching characteristics, and the general tenor of their educators' methods of giving this feedback to them. These questions were asked because the literature explored in Chapter Three clearly indicated that some clinical teaching behaviours and attributes are student-centred and improve student learning, whereas other behaviours are less effective and therefore undesirable in a learning environment.

The categories related to the teaching characteristics of clinical educators were informed by the work of Atack et al., (2000), Bennett (2003), Bergman and Gaitskill (1990), Boendermaker et al., (2002), Chitsabesan et al., (2006), Higgs (1992), Hummell (1997), Lake and Ryan (2006), Mogan and Knox (1987), Mulholland et al., (2006), Mulholland et al., (2006), Nehring (1990), Prideaux et al., (2000), Ramani and Leinster (2008), Torre et al., (2003), van der Hem-Stokroos et al., (2003), Worley et al., (2006) and Yeates et al., (2008).

It is also extensively articulated in the literature described in Chapter Three that feedback on students' work is a hallmark of good clinical education. For that reason students' views were sought in order to establish a picture of how feedback is managed. The categories related to the nature of the feedback offered to students were informed by the earlier work of Chur-Hansen and McLean (2006), Daelmans et al. (2004), Kneebone et al. (2002), Boendermaker et al. (2002), Ferenchick et al. (1997), Hummell (1997), Irby (1994), Kilminster and Jolly (2000), Molloy and Clarke (2005), Myers (2001), O'Sullivan et al. (2000), Raiser et al. (2003), Titchen and Binnie (1995), Torre et al. (2003), van der Hem-Stokroos et al. (2003).

**Exploring students' experiences of working with actual clients:** Questions 9–12 explored what student's value about their clinical education opportunities. Also explored were the actions they took if they suspected a client was experiencing an adverse reaction to a clinical intervention, as it was expected these questions might elicit the characteristics of student and educator dialogue about such issues.

**Exploring the timing and content of educator and student discussions:** to answer the first question asked in this study, survey Question 13 asked the students to respond to a series of statements aimed at exploring the timing of student–educator discussion. . To appraise the extent to which the dual study objectives outlined in the two research questions, Questions 14–15 asked students to respond to statements about the content of those discussions.

The literature presented in Chapters Two and Three details various models for managing student learning from experience. In addition, Chapter Three provides numerous descriptions of when clinical teaching generally occurs and the variety of topics discussed between clients, educators and students. Therefore, it was important to know if physiotherapy clinical education utilised models similar to or different from that found in the literature. The questions related to the management of student and educator communications about client care and the topics of discussion expected to be included in such discussions were informed by different versions and views on the hypothetico-deductive reasoning processes (Benjamin & Hamdy, 1993; Dunn, 1993; James, 2001; Taylor, 1997; Neistadt, 1996; Finucane, Crotty and Henschke, 2001). The work of these authors was added to by the various publications regarding clinical teaching strategies by Ferencick et al. (1997), Guyatt and Nishikawa (1993), Jones et al. (2000), Kurth et al. (1997), Lipsky et al. (1999), Neher et al. (1992), Raiser et al. (2003), Ramani et al. (2003) and Roth (1996). Further, the sub-items under each respective topic of discussion was informed by thoughts on the content of student and clinical educator dialogue as espoused by Andresen et al. (1995), Baird and Winter (2005), Edwards et al. (2005), Fry et al. (2005), Heidenreich et al. (2000), Higgs and Jones (1995), Irby (1994), Kaufman et al. (2000), Kolb (1984), Mandy (1989), Smith and Irby (1997), and Stanton and Grant (1999).

**Exploring the students' wish-list of topics they would like to have had**

**discussions about:** Question 16 was a variation of Questions 14 and 15. The only difference was that students were asked to answer what type of discussion they *would like to have had* with their clinical educator if they worked in an ideal world. Doing so

enabled a comparison between what students say is *current status* and what the students say they would *like to be the status quo of acceptable discussions*. Knowing such information can provide insight into how much the current education strategies were meeting the students' perception of their needs.

#### Explaining the structure of the clinical educators' survey

In the clinical educators' survey, and so that comparisons could be made, the majority of the questions asked of the educators were the same as those asked of their students. All questions in the educators' survey were quantitative and sought educators' responses on the Likert Scale described earlier. There were five (5) categories of questions.

**Contextualising questions:** Questions 1–4 and 10–12 were designed to elicit basic contextual data. In addition, educators were also asked to provide their total years of experience in clinical education.

**Exploring the clinical educators' activities in professional development related to clinical education:** The educators were asked, in Questions 5–6, to indicate their involvement in professional development activities related to clinical education. In Questions 7–9, they were asked the reasons for their participation or non-participation in these activities.

These questions were asked because of the lack of information in the literature on the preparation for physiotherapy clinical education. The literature described in Chapter Three from other health disciplines suggests clinical educators feel they are undervalued and do not always feel part of the university system. Also, that clinical education is not valued as an authentic academic activity in tertiary education.

#### **Exploring the timing and content of educator and student discussion:**

In order to ascertain the similarities and differences between student and educator responses, educators were asked in Questions 13–14 the same questions as students were about the timing of their discussions and the content of their discussions related to client-care events.

In addition to the above, Question 13 asked for some further details to determine:

1. How much the clinical educator attempts to explain the student's circumstances to the client, regarding the student's level of education;
2. The frequency with which clients are asked to give informed consent to student participation in their health care; and
3. How often the educator invites the client to be pro-active in the student's education.

#### Recruitment of participants for the surveys in Part One: Stage Two

Initially, all the enrolled fourth year students in 2006 were sent the Participant Information Statement (approved by the Ethics Committees) via an email sent by the Program Administration Officer. This information was sent to them after they had returned from a block of clinical education. The email gave them a link to a designated site on the university system where the survey had been built. This method of recruitment proved unsuccessful because only one response was received. It was then decided, in consultation with my supervisors, that in order to elicit a greater number of responses, a hard-copy of the survey would be distributed in class time to the same cohort.

To comply with ethics approval the survey was distributed by a third party who was a member of the physiotherapy faculty. The completed survey was collected by the same person at the end of class. The second method yielded a greater number of responses and was used with the third and fourth year cohort enrolled students in 2007, on their return from practice education.

Similarly, all the clinical educators involved with the university physiotherapy students in 2006 were contacted via email by the Program Administration Office. The educators were asked to answer an online survey which had been purpose-built on the university system. The majority of the responses were received via this action and the additional responses were gathered at the clinics where the observations took place.

There was no need at any time to have students or educators sign forms of consent to participate in the survey aspect of the study because their consent was inferred by the return of the completed survey as set out in the Information Statement.

### Explaining the steps in data analysis of the surveys in Part One: Stage Two

The quantitative data collected from both surveys were analysed through the Statistical Package for the Social Sciences (SPSS), Version 18. Descriptive means and inferential statistical tests, t-tests, were used. Survey data collected from the students and clinical educators were categorised in the first instance into general responses which allowed an overall comparison between the students' and educators' reports. Following on from the above, another category was developed to manage student and educator responses from those who had worked in different clinical practice settings.

To recapitulate, all of the above categories enabled a comparison between students' and educators' responses. The comparison of data sets provided some insight into contemporary physiotherapy clinical education events (as stated in the Participant Information Statements).

Following on from there, another stage of analysis was used. Comparative t-tests were applied to the data. That is, independent t-tests of educators' and students' responses related to the *content* of their discussions. The topics they discussed were compared, as well as the sub-items within each topic, to ascertain if there were statistically significant differences between the educators' and students' responses. A level of significance of (0.95) was adopted for this quantitative analysis.

The qualitative data were analysed manually. In the first instance I compiled the students' responses in general and then, during a second round of analysis, data were compiled under the four different types of clinical education settings. A sample of how the two stages of data analysis took place is presented in Appendix 3. This made it possible to ascertain if there were differences between settings. Understanding of the responses emerged from my own experience and by using a process of inductive and later deductive analysis to identify patterns and allow themes in the data to emerge (Charles and Mertler, 2002; Patton, 2002). In the first instance I developed broad categories of responses and then sub-themes within each category. Although a number of themes were mentioned by more than one student the final presentation is representative of the breadth of the students' comments.

The analytical strategy facilitated construction of a nested and layered representation of contemporary physiotherapy clinical education. Having such information enabled me to develop Part Two of the study.

## **Part Two: Stage One**

The intention of Part One of the study was to capture the perspectives of faculty as to the overall management of clinical education, along with students' and educators' retrospective impressions of their clinical education experiences. In contrast, the intention of Part Two was to capture 'in-situ' experiences of interactions between each of the three members of the clinical education triad and to contrast and evaluate the two data sets.

Therefore, Part Two was formulated from the analysis of Part One. Through the processes, it became evident that the perceptions of educational events by students and their educators were very different. Once aware of this significant gap, I set out to observe actual clinical education events to see what they revealed. In addition to the aforementioned findings and because of my ongoing curiosity about clients' views of clinical education and the need to better understand them, it became obvious it would add to the robustness of the study if clients were also formally interviewed. I therefore applied for a variation to the original ethics application submitted to the university, as explained earlier. The two stages in Part Two of the study are explained below.

### Explaining the structure of the Observation Audit Tool

The design of the Observation Audit Tool (OAT) was informed by the literature on clinical education strategies. This included the list of competencies expected of entry-level physiotherapists espoused by the APC (2009). These were in addition to the earlier work of Flocke et al. (2002), Makoul (2001), Monekosso (1998), Murtagh (1997), Platt and Gaspar (2001), Schneider et al. (2004) and Simpson et al. (1991).

The OAT was piloted twice with clients (n=2), students (n=2) and a clinical educator (n=1) from another health science discipline at another university to see if the OAT was effective in capturing the essence of the interactions between clients, educators and students. The pilot study revealed changes needed to be made in the way data were recorded and this was because of the speed with which events took place. The pilot showed there was no time for long descriptions and a faster method of recording observations was needed. The forms were amended to include tick-boxes for recording common events, with white-space between items for recording explanatory or additional information. Consideration also needed to be given to the impact that my presence would make on the students, clinical educators and clients.

The aim of observing clinical education scenarios was to:

- Capture vignettes of real-world, real-time interactions during episodes of clinical education with individual clients; and
- Test the data collected from the students' and clinical educators' surveys about the frequency and content of educator–student dialogue.

All participants were informed in advance that observations were to take place and their permission obtained before proceeding see Appendix 12. To that end, the OAT was comprised of six (6) overarching categories of qualitative and quantitative style recording systems for numerous sub-categories of interactions that occurred. This OAT is presented in Appendix 7.

**Contextual information:** Categories 1–5 sought to confirm the students' year levels, the student-to-educator ratio, the types of clinical practice settings and students' role in the event. In order to establish if a professional relationship already existed, Categories 6–9, were included to collect the history of the client's previous visits to the clinic. These questions were asked because an existing relationship might impact on what the student and the clinical educator would already know about the case. Categories 10–11 sought to ascertain whether the student was introduced to the client, or if the role the student was going to take in the consultation was explained to the client. This was particularly important if a professional relationship had not already been established and it also enabled direct comparisons to be made with the data from the surveys in Part One.

**Content of the dialogue between client, educator and student:** Category 12 was designed to collect data about the topics discussed between the client, educator and student during the consultation. Having such information enabled comparisons to be made between what occurred as recorded by an observer and responses to the students' and educators' surveys about their perceptions of what occurred.

The manner of the student and educator interaction was explored by Categories 13–17. These were designed to capture the nature of the questioning and response styles between the student and their educator and to establish, in addition to asking and answering questions, whether the educator gave the student feedback on their thoughts or actions during the episode of care. This part of the observation data



enabled a comparison to be made with what the students perceived as having occurred in relation to feedback as collected by their previous survey responses.

The literature on client-centred care discussed in Chapter Two advocates the elements of what a client-orientated consultation is meant to reflect, namely, a clear indication that the values of the client are respected which is evidenced by the tenor of the client–practitioner dialogue. Therefore, the manner of client, educator and student interaction was explored by Category 18. This set of items focused on recording whether the client’s level of comfort and understanding of clinical processes was monitored by either the student or the educator throughout the consultation. The data collections were expected to provide insight into the attention the student or the educator paid to the client’s needs. That is, insight into whether or not the student and educator acted in a way that was client-centred. The reports were later counter-checked with the client during the post observation interviews with them, as described in Part Two: Stage Two. At all times during the observation of clinical education I acted with the intent of being as unobtrusive as possible. After being introduced, I sat out of the way of the work that was being done. I kept out of the line of site and did not converse with any of the participants during the consultation. This appeared to enable the student, client and educator to act freely.

To review, the OAT was used to capture samples of clinical education processes and actual interactions between clients, educators and students during real-world, real-time events.

## **Part Two: Stage Two**

To enable consistency across a collection of interviews, themes drawn from the literature cited earlier in this chapter were developed into a series of semi-structured interview questions. At each event, these questions were tailored to explore the preceding clinical education scenario. Similarly, the language used during each interview was tailored to reflect the researcher's comprehension of what the client, educator or student would understand. Adopting such a strategy facilitated an informal conversational style of interview, thus creating a relaxed atmosphere and eliciting richer data than a prescriptive list of questions might have done. In each instance the intent was to capture examples of personal views of the preceding clinical education scenarios. The overall aim was to collect information that would add to, confirm,

support or refute data collected from the observations, thereby contributing to the robustness of the study.

Post-observation interviews were held in a particular order, firstly with clients, secondly with educators and lastly with students. All interviews took place immediately after the education scenario and related only to the preceding event. All interviews with clients took place in the consulting room with only the client and the researcher present. Each interview was conducted *expediently* so as not to interrupt the work of the clinic. Some interview took five minutes, others up to ten. Interviews with educators and students were undertaken separately and without the presence of any third party. In all instances it was the educator who organised a suitable setting for these meetings to take place. All interviews were audio-tape recorded.

#### Explaining the nature of the client interviews

There were four (4) categories of questions. The initial questions were icebreaker questions, asked so the client could feel comfortable with the process. The responses to those questions were not used in data analysis. Once the client seemed relaxed, more detailed questions about the consultation were asked. The next set of questions related to whether or not the client had been asked to give informed consent to the student's involvement in their care and the manner in which the consent was obtained, if the student was introduced to the client and if the role the student would take in the consultation was explained to the client.

Following on from those questions, clients were asked questions designed to elicit if they were satisfied with the explanations given to them by the student or educator about their comfort during the consultation and about their health status and the management plan for their care. The report from the Observation Audit Tool recorded whether or not the client had been asked such questions, but it was important to know if this was the client's view. It was important to ascertain if the client felt they had been listened to and if their views were taken into consideration during the episode of health care, if the client was satisfied with the student's presence and if the activities during the consultation were what they wanted.

It was anticipated that the client's responses would provide some indication of their feeling of involvement — of the client-centredness of the care they had received. The responses enabled a comparison between the student's and the clinical educator's

thoughts enabling the development of a three-way perspective of the client-centredness of the same consultation.

Clients were also asked if they felt they were able to speak up and intervene when they thought the student or educator may not have fully understood their case. The interview also explored if the client gave feedback to the student and what they did if they felt the treatment they had been given was inappropriate. I asked such a question to ascertain the tenor of the feedback the client gave the student.

The final category of questions asked of clients was designed to identify if they felt the student's presence benefited their consultation and if they thought the level of supervision of the student's work was satisfactory. These questions were asked to ascertain if the client felt secure being cared for by the students and whether they felt the student's work was adequate.

#### Explaining the nature of the clinical educator interviews

The interviews with the clients were followed by the interviews with the clinical educators. As with the previous interviews, the questions related specifically to the preceding observed scenario. There were four (4) categories of questions that took several minutes to answer.

In the first set of questions, the clinical educators were asked if informed consent was gained from the client for the student/s to be involved in their care. This was important, because whether or not consent was sought gave an indication of the educator's management of the client-centredness of the event. The responses were later compared to what was observed and what the client said occurred.

The next set of questions were designed to elicit what the educator felt was beneficial about the preceding clinical education event as far as the student's education was concerned. The educator was asked what they thought was beneficial for the students involved, what was not helpful and how working with real clients in a real-time scenario contributed to the student's learning.

The application of any underpinning theory of client-centred care was explored by asking the educators to briefly describe their understanding of the term client-centred care, and to comment if the episode previously observed was reflective of those

principles. Finally, educators were asked to explain their rationale for the way they organised the students' clinical practice.

#### Explaining the nature of the student interviews

The third and final stage of interviews involved the students and these consisted of three (3) categories of questions. The students were asked the first set of questions to elicit whether they found the previously observed event beneficial to their education, what they found helpful and what they found unhelpful. The students were asked the second set of questions to elicit whether they found the educational event complete as far as they were concerned. That is, did they want to ask the client for any other information, or did they want to ask the educator any other questions?

Similarly to the approach taken with the educators, the students were asked to give a brief description of their understanding of the term 'client-centred care' and to say if the previously observed episode of education and health care represented an application of that concept. Finally, students were asked to explain the types of educational strategies they found most beneficial in clinical practice.

#### Recruitment of participants for the observations and interviews in Part Two

Participant Information Statements about the study were sent to clinical educators, via email from the Faculty Administration Officer and the Course Convenor. On the few occasions the invitations to participate in the study were accepted, it was then up to the educators to choose a day for the observations, to inform clients and students, and to seek written consent from them both. If, in the event one or the other did not consent on the particular day, then observations or interviews were not conducted.

#### Explaining the steps in data analysis of the observations and interviews in Part Two

The data from each observation of education and health care were analysed manually. Consistent with the approach described previously, inductive and deductive analyses were used to analyse the reports of the Observation Audit Tools, to develop a sense of the nature of the education scenarios, and of clinical education generally in all the clinical placement settings. Each scenario was reported separately.

Similarly, the interview data also underwent manual analysis. In the first instance, it was to find comparisons and to explore the fit between what was observed to take place in a particular episode of education. In the second instance, the interview responses were collapsed into categories and inductive and deductive analyses were applied to facilitate the development of an accurate representation of the individual voices of the triad. In this way, good examples and poorer examples were created. Overall the observation and interview data were collated. Thus, a comprehensive picture emerged informing the research of the intricacies of the day-to-day educational and health care events and the effects on those who participated in them.

#### Collating the data to answer the research questions

The central questions asked in this study were:

1. What features of the clinical education process epitomize student-centred education?
2. What features of the clinical education process epitomise client-centred care?

The answers were sought via the use of a mixed method study design, undertaken within an interpretive paradigm and which employed the use of four different types of data collection tools: surveys, observations, interviews and the diary. The participants involved were faculty members, clients, educators and students. The following section explains how the data collected were analysed to discover the answer to the research questions. The overall analysis is explained in the following two sections.

#### The analysis of the application of student-centred education in physiotherapy clinical education

The exploration and analysis of the student-centred nature of clinical education as applied in clinical education in physiotherapy was determined from the interviews and the analysis of the data collected by the student and educator surveys. Both the students and the educators lent their voices to the exploration of the phenomena of clinical education and health care events.

**The students' voice** was captured, via survey, regarding their reflections on:

- Their view of the educator's teaching characteristics;
- The nature of feedback they report they received; and
- The *timing* and the *content* of educator and student discussions about client care.

Also, I sought to discover whether there was a difference between what the educators and students reported about the timing and content of their discussions. Also, whether there was a difference between what matters the students currently discussed with their educator and what they wished they might discuss in an ideal world scenario.

In addition, student interview data provided information about their views of the observed episodes of education and health care and if the educator's view matched the student's views of the same events.

**The clinical educators' voices** on these matters were captured by their survey responses as described above and interview data which provided insight into their profile and rationale for their style of supervision and teaching strategies.

In order to assemble data on student-centred learning, and on the basis of the literature reviews described in Chapters Two and Three, final analysis focused on evaluating the report against the three theoretical propositions developed from the literature.

They were:

- **Proposition A:** The core principles of student-centred education are evident in clinical education strategies. Clinical educators and students are in agreement that the contemporary physiotherapy clinical education strategies met their needs and achieved the goals of clinical education.
- **Proposition B:** The core principles of student-centred education are evident to some degree in these samples, with some key elements overlooked.
- **Proposition C:** The core principles of student-centred education are not evident from these samples of contemporary physiotherapy clinical education strategies.

#### The analysis of the application of client-centred care in physiotherapy clinical education

Similar to the above, the exploration and analysis of the client-centred nature of physiotherapy clinical education was explored by using: student and educator surveys, observations of clinical education scenarios and interviews with each member of the triad.

**The client's voice** was collected through observation data which provided information about whether or not the client was asked by the student or the educator about their level of comfort or if they understood clinical procedures. In addition to this was interview data concerning their satisfaction with their consultation that involved the students.

**The educator's voice** was represented by their responses to interview questions about the client-centred nature of the observed episode of care. Also, by the survey and the observations data concerning whether or not they asked clients to give their informed consent to care by students. Also included were responses to questions about whether or not clients were advised of the student's education status and if the educator asked the client to be pro-active in the student's education.

**The students' voice** was represented by: Survey data which explored whether students asked the client for feedback and also about what action they took if they suspected an adverse clinical event and; the extent to which they demonstrated awareness of the application of client-centred care in their clinical practice education. In order to bring together the data on client-centred care, and on the basis of the literature review described in Chapters Two and Three, final analysis focused on evaluating the findings against the three theoretical propositions developed from the literature. They were:

- **Proposition A:** The core principles of client-centred care are understood and applied in the educational strategies. Clinical educators and students demonstrate intent to work collaboratively with clients to adjust care and support so that it takes into account the client's experience, needs and goals. Educators and students apply these concepts in a way in which the essential elements are recognisable to the client.
- **Proposition B:** The core principles of client-centred care are misunderstood and are difficult to identify during the consultation. The client is unsure if the consultation meets their needs.
- **Proposition C:** The core principles of client-centred care are unknown and are not identified during the consultation. The clients indicate that the current style of client–student consultations do not meet their needs.

To summarise, the questions about physiotherapy clinical education that were not answered in the literature search and which are explored in this study are presented in Table 9, which demonstrates how the questions align with the selection of data

collection tools. Once analysed, each of these sources of data informed the successive parts of the study and these are conceptually represented in Figure 7.

### **Summarising Chapter Four**

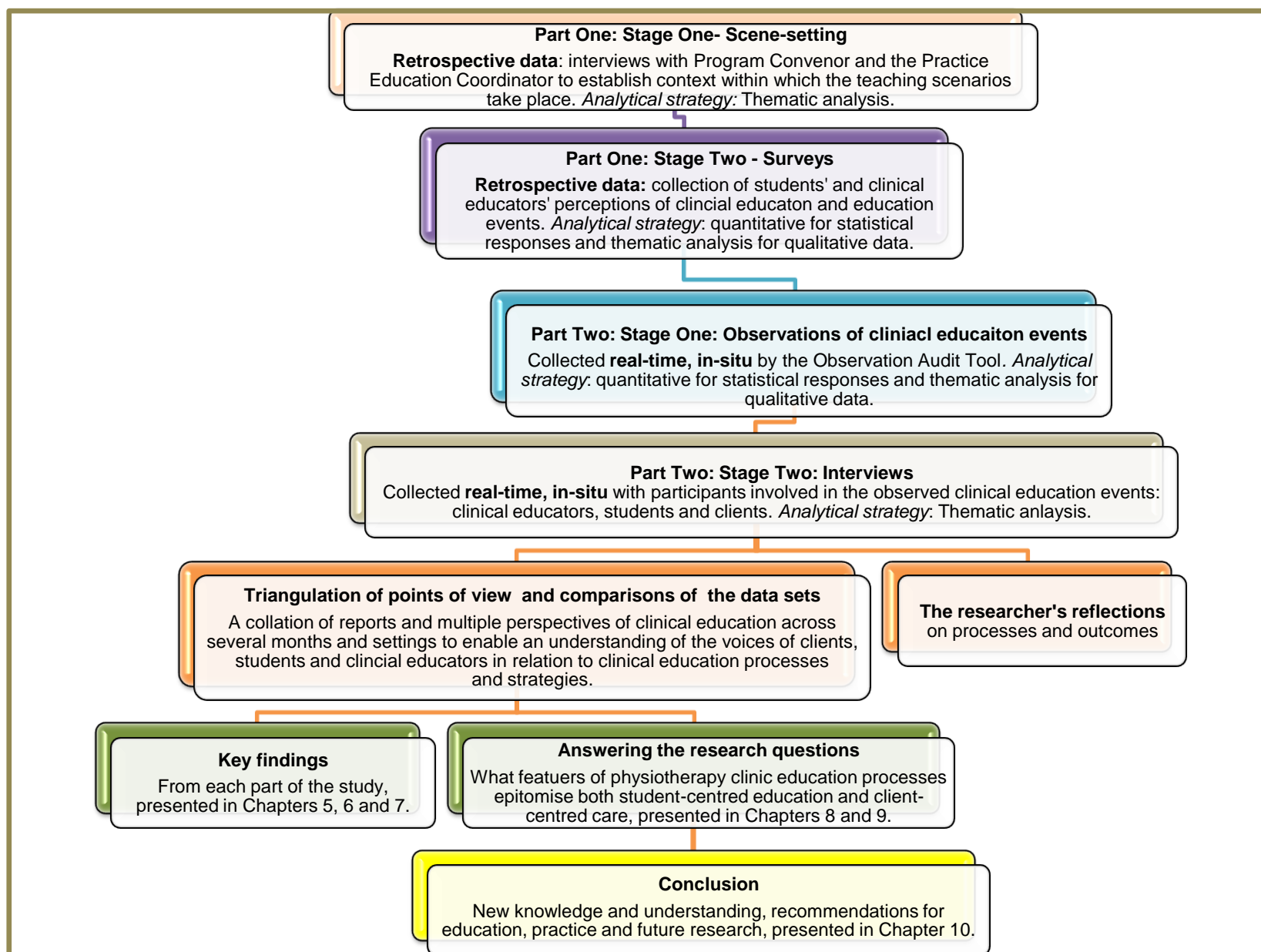
Chapter Four made explicit the processes and procedures I followed as I undertook the methodology in this research expedition. The preamble explained my prior experiences and thoughts that led to the inception of this study. I described the two parts of the study and the stages within each part. I described the methods used to collect data and the different ways I went about analysing and interpreting the material before arriving at the present form. This chapter concludes with a section on how I applied the data to answer the research questions. Following on, I contribute my reflections on the procedures and processes and what I learnt from them. These are put before the readers of this thesis to make their own judgements.

The following Chapters Five, Six and Seven present the report of the different stages of data analysis. Chapter Eight presents my discussion and interpretation of the report against the literature and the research questions and it also makes an analysis of the findings of this study about clinical education in physiotherapy incorporating the tenets of Kolb's Experiential Learning Cycle.



**Table 9. The alignment between the gaps identified from the literature review, questions asked in the study and data collection tools.**

	Data collection tool		
	Survey	Observation	Interview
<b>The client's voice</b>			
a) To what extent are the clients asked to give their informed consent to student involvement in their physiotherapy health care?	✓	✓	✓
b) Are clients' satisfied that the clinical education scenario meets their health care needs?			✓
c) Are clients satisfied with the level of supervision of students' work?			✓
<b>The students' voice</b>			
a) What do physiotherapy students value about clinical education?	✓		
b) What difficulties do students encounter in clinical education?			
c) What are students' perceptions of clinical educators teaching behaviours?	✓		
d) What is the tenor of the feedback students are given by their clinical educators?	✓		
e) What are the students' perceptions of the timing and the content of the discussion they have with their clinical educator about episodes of client care?	✓		
f) To what extent do students seek feedback from their clients?	✓		
g) What do students understand by the term 'client-centred care' and do they feel they act in a client-centred manner?			✓
h) What actions do students take if they suspect their client has had an adverse clinical event?	✓		
i) What are the students' views on the nature of clinical supervision and teaching?			✓
<b>The clinical educators' voice</b>			
a) To what extent do physiotherapy clinical educators engage in professional development activities related to clinical education?	✓		
b) What are the educators' perceptions of the timing and the content of discussions they have with students about episodes of client care?			
c) What are the educators' rationale for their style of supervision and teaching?			✓
d) What do clinical educators understand by the term 'client-centred care' and do they feel they act in a client-centred manner?			✓



**Figure 7. A concept map of the different parts of the research**

### ***My reflections***

The mix of methods and the comparisons of quantitative and qualitative data were revealing. While working through the different parts of the study and by the ongoing use of my reflective diary, I became more conscious of the importance of gathering the client's voice in clinical education and also of exploring individual educator's and student's experiences about actual real-time educational events. I believe the use of mixed methods was critical to capturing the three-way perspective of actual real-time educational and health care events because this study is essentially about people and their interrelationship.

In essence, the current study explored people who were engaged in an event which impacted upon the client's personal life, the student's professional life and the educator's contribution to their discipline. I am now more convinced than ever before, as each circumstance changes, that it is the clinical educator who holds the key to the success of the clinical and educational encounter and, as a result, the thesis has been a spring-board to re-orienting my career. Currently I am engaged at local, national and international levels in dialogue related to all aspects of professional placement education and the exploration of effective ways to provide professional development activities and support for clinical education across all disciplines.

## **CHAPTER FIVE REPORTING THE FINDINGS AND RESULTS FROM PART ONE OF THE STUDY**

### **Introduction**

Chapters Five, Six and Seven present the findings and results of the mixed methods instruments used to collect data for this study. Across these three chapters the qualitative findings and the quantitative results present a montage of contemporary physiotherapy clinical education. As each chapter progresses a more in-depth picture emerges, showing the complexity of the dynamics of the interactions.

This chapter is presented in a manner that reflects the two different segments of Part One of the study. Part One: Stage One opens the chapter and is the presentation of the findings from the data collected from the interviews with the two faculty members. After a preamble concerning the perspectives of the two faculty members, the six broad themes are presented in the process order of clinical education: the background of the program; the shortage of placements; the perceived practice educators' views; the perceived students' concerns; the practice educators' workloads, remunerations and rewards; and the practice educators' professional development activities in clinical education.

Following on from there are the results of the students' and educators' survey reports which constitute Stage Two of Part One. Initially, a description of the participants in the two surveys and the context of clinical education are presented. Next are the descriptions of the profiles of the clinical educators and then the students' views on the value of clinical education and what they found difficult. This is followed by a description of the students' views of their clinical educators' teaching characteristics.

The chapter then presents a general description of the interactions between clients, educators and students, which is followed by an analysis of the timing and the content of student and educator discussions. The comparisons between students' and educators' views are presented. Finally the chapter concludes with a global analysis of clinical education, the students' views of four aspects of clinical education: the educators' teaching characteristics; Feedback; timing; and the content of educator and student discussions, in the four different clinical education settings in which the greatest majority of student respondents learnt.

The results are offered at a number of levels representing different stages of analysis. As far as the survey was concerned, except where questions were open-ended, responses were made on the Likert Scale continuum of: 1=never; 2=rarely; 3=sometimes; 4=often; 5=always. The mean of the scores is presented in various tables, as is the actual number of either student or educator responses. The chapter concludes with a summary of the key findings from this part of the research.

## **Reporting the findings of Part One: Stage One**

### **Describing the perspectives of the two faculty members**

The responses of the Program Convenor and the Practice Education Coordinator to the interview questions asked present a background to the organisation of clinical placements in this particular undergraduate university program. This background material was viewed in relation to the recruitment and retention of physiotherapy practice educators. The thematic findings outline the issues as perceived by the respondents and the conditions within which clinical placements of physiotherapy students were organised. As stated above, the findings are presented below under the six (6) themes identified during the analysis and interpretation of the transcripts:

- 1) The background of the program;
- 2) The shortage of placements;
- 3) The practice educators' views;
- 4) The students' concerns;
- 5) Practice educators' workloads, remunerations and rewards; and
- 6) Practice educators' professional development activities in clinical education.

These are reported as verbatim commentary using the responses to the questions posed.

### **Theme One: The background of the program**

The physiotherapy program at this university started in 2001 and had the first intake of students in 2002. The clinical placements were organised by canvassing clinicians who worked at the various local hospitals and private practices. In order to offer students as much variety in interaction with clients and their symptom management, speciality clinics, such as hydrotherapy clinics, were specifically targeted.

One of the concerns of the local physiotherapists was that this university would require them to manage clinical education differently from the other university in the State. They felt this would be confusing. However, since then, the clinical placement

guidelines and assessments of both universities were aligned. Working state-wide, this has given increased capacity for finding clinical placements but it has also set up a competition for the placements available in the area.

Initially, clinical educator training sessions were offered to the practitioners for two reasons: to discuss how to best manage student placements and to identify the needs of practising physiotherapists. Mostly, physiotherapists were concerned they did not have the necessary skills to manage students' learning. The staff at the university found it necessary to make explicit what was expected of students and the assessment processes in order to avoid confusion and better direct learning events. For example, practitioners could give the students high distinctions for all assessment tasks. The staff decided to implement a 'safety fail' mechanism, which meant when a student was found to be breaching safety guidelines, they automatically received a 'fail' grade. In subsequent years the clinical manual, provided by the university, evolved to become a more explicit source of reference.

The Program Convenor noted that the more confident the practitioner, the more they liked to be involved in student education. The flow-on effect was substantial. When the clinical educators became competent they were invited to present their ideas on clinical education to their peers and these presentations and discussions appeared to inspire their peers greatly.

### **Theme Two: The shortage of placements**

State-wide, because of increases in enrolments of physiotherapists at universities, there is an ever present and increasing need to have more and more clinical placements. Additionally, there is a constant need to identify systems of sustaining each placement once they assume responsibility for taking students. The Program Convenor said they were, and are, in a climate of increasing pressure to educate a large number of international students. This makes the situation more difficult because it is perceived by practitioners that this group of students, in particular, increase their work load. For many practitioners, taking international students is a non-viable proposition and so placements are not offered.

This issue is concerning as the Program Convenor thought it had the potential to decrease the overall practitioner data base which will affect local students as well.

*It's difficult for us to get enough clinical placements — some of the reasons are related to a lack of people wanting to take on the role of educator, [or] the astronomical increase of new physio programs in NSW. This is putting pressure on all the sites to take students continually. Most places are chronically understaffed.*

She went on to explain that they had no specific requirements about how supervision and teaching were to be conducted. She said:

*All units have fairly broad objectives and it is an expectation that while on a unit the students will assess and treat clients...In many cases we are so short of placements that we really have to take what is offered.*

### **Theme Three: Practice educators' views**

When asked, the Program Convenor said that, 'Initially, some practitioners were concerned that private paying clients would not be satisfied with receiving treatment from students'. She continued:

*In contrast, other practitioners' experience was that when clients were advised that students would like to be involved in their care, and when they were advised that students were likely to know all the latest ideas, clients were actually honoured to have students involved in their care.*

The Program Convenor reported that a number of practitioners liked to offer a placement to final year students. If they like the student's work, after graduation, many practice educators offered these students employment. Some clinics in the area continually offer new graduates work for one or two years. After that time they encourage them to move on and by doing so the practices have a constant cycle of new knowledge, ideas and enthusiasm from which all stakeholders gain.

### **Theme Four: Students' concerns**

Like on in campus education, students attending clinical placements can become frustrated if they perceive they are paying fees for inadequate education. The Program Convenor said, 'we (the staff) collect students' views on each clinical placement,

however there are no resources to analyse this data'. The Program Convenor said that staff engage with students on a needs basis. That is, they most frequently respond to a complaint or a commendation. When difficulties arise with students' progress more time is spent with the educator and the student.

#### **Theme Five: Practitioner/educators' workload, remuneration and reward**

In some clinics students might be supervised by staff members who have other clients, while some might be supervised by staff members who are employed as designated clinical educators. The latter positions are usually in hospitals and there are none in the local Area Health Service. In the past there have been some designated educators employed by the universities throughout the State but there were not any at this particular time.

Both the Program Convenor and the Practice Education Coordinator felt that one possible de-motivating factor for taking students was the level of staffing in physiotherapy hospital departments in general and also in private practices. High case loads, pressures from multiple universities to take students, constant streams of students through their units with no breaks were all deterrents. On the other hand, staff felt that some physiotherapists genuinely loved being involved in student education and had a genuine concern for the profession and wanted to make a contribution.

The Program Convenor said, 'Most of the physiotherapists who take students in the region do so in addition to their existing case loads'. Furthermore, she reported that the Professional Association does not give Continuing Professional Development points for activities related to clinical education. Hence, practitioners receive very little incentive from any quarter for their involvement in clinical education. That being the case, she said, 'the clinical education component of the curriculum is heavily reliant on the goodwill of the members of the physiotherapy profession'. Both the Program Convenor and Practice Education Coordinator said that they do try to demonstrate their appreciation and genuine gratitude through offering the practice educators conjoint appointments with the university, which have many benefits.

The Program Convenor and Practice Education Coordinator both reported that it was very difficult to get enough clinical placements and this was compounded by the number of physiotherapy students in NSW, which has increased exponentially in the last five years, with the continuing emergence of new physiotherapy schools. Also, retaining clinical educators is difficult because physiotherapy, being a female-



dominated profession, means that there is an ongoing loss of experienced staff to maternity leave.

It seems one of the major motivating or de-motivating factors in Australia, for sites to offer placements at present, is financial rewards. Whilst both academics acknowledged the point may sound cynical, it seems to be one of the driving forces behind sites agreeing or not, to take students. In another State of Australia, schools of physiotherapy have faced serious consequences because of the withdrawal of the customary payment of clinical educators. In a reversed situation, in another State, their universities are paying very large amounts of money for student placements. The Program Convenor said:

*'The State of NSW falls somewhere in the middle of these two scenarios by paying a small financial reward. This university pays the practitioners who offer placements to students \$22 per student per week. There is uncertainty about how long this payment might be the case'*

#### **Theme Six: Practice educators' professional development activities in clinical education**

The Program Convenor said, 'the practice educators attended briefing and discussion workshops at the university but these were not compulsory'. However, she continued:

*'Every effort is made to support the clinical educators in their task. At times, faculty members visit remote clinics and speak to groups of physiotherapists so the practice educators do not have to travel to the university for discussions'.*

She went on to say:

*'Occasionally, the university offers some professional development activities for clinical educators. Sometimes these workshops are discipline specific and others are multi-professional workshops. There are more planned for the future. Because most of the practice educators take students from both our university and the other in the State, in addition to our workshops they also attend the other universities' workshops on clinical education, so there is plenty of opportunity for them to meet their peers'.*

The Practice Education Coordinator reported that teleconferencing between faculty and the private practice clinics takes place prior to the student commencing at a placement. Normally, discussion will also include assessment and expectations.

To summarise, the interviews with the Program Convenor and the Practice Education Coordinator showed that the issues relating to organising clinical placements of large cohorts of students is a complex task. It requires balancing the limited availability of the local physiotherapy clinics who actually offer placements with the increasing enrolments of local and international students who need clinical education. Incentives must be given and continuing motivations must be offered. The actual quality of the practice education experience was difficult to determine, hence the support for this study.

Faculty were not asked specifically about whether they requested that their clinical placement educators undertake their supervisory and teaching activities in a manner that reflects both student-centred and client-centred care as it was evident throughout the interviews that such would be their ideal. They seemed reticent to ask any more of the practitioners who were taking their students for placement. There is a concern that putting extra pressure on those who offer placement may result in the loss of valuable placement opportunities, which were evidently in short supply.

#### **Key findings from interviews with faculty**

- Organising placements for large cohorts of students is a complex task.
- There are several universities competing for limited placement opportunities.
- Incentives need to be offered to host organisations.

#### **Reporting on the results from Part One: Stage Two**

Stage Two of Part One consisted of the results from the students' and clinical educators' surveys. These surveys were designed to explore each group's retrospective perceptions of their most recent clinical education experience, which had taken place within the past two months.

These types of surveys yield enormous quantities of results which can be presented in many forms. As the researcher I decided to present the means of the responses.

I presented the overall data first and then followed this by presenting the data which was categorised into the four different clinical education settings in which the students and educators worked. When it was applicable, I presented the rank means of responses. Also, I presented the comparison of the means of the student and educator results. Finally, the section concludes with an analysis of the students' views of four aspects of clinical education: teaching characteristics of clinical educators, feedback they received from the educator, and the timing and content of student–educator discussions about client care. All these were presented in the four different clinical education settings. The next parts of data analysis follow this order.

### Participants in the survey

Seventy-nine clinical educators were invited to participate in the study during 2006. Thirty-seven educators responded, giving a response rate of forty-seven percent. The total number of student responses was ninety-four, consisting of twenty third-year students and seventy-four fourth-year students. To recapitulate, in 2007 only one class of third year students was asked by their lecturer to take part in the survey. The whole class of sixteen students responded, giving a one hundred percent response rate for that cohort. There was an incidental inclusion of four students from another university who were taking their practicum at a clinic involved in this study and they had filled in the survey as well, after obtaining permission from their university. On the other hand, fourth year students were invited to participate in both 2006 and 2007. The number of fourth year students enrolled in the Bachelor of Physiotherapy Program in 2006 was forty five and, in 2007, fifty one. Seventy-four fourth year students responded to the survey, giving an overall response rate, from both cohorts, of seventy-seven percent.

Survey data collected from the students and educators were categorised in the first instance into overall responses and these are presented below as means or ranked means. In addition, with the exception of four students, all the other students and their educators worked in four different clinical education settings: Private Practice; Community Clinic; Public Hospital; and Private Hospital. The actual numbers of each group are shown in Table 10, under these four different settings. Therefore, as noted previously, in addition to the presentation of general data, responses are also presented under the type of clinical education setting in which the respondents worked.

**Table 10. Details of participants**

	Private Practice	Community Clinic	Public Hospitals	Private Hospitals
<b>Clinical educators</b>	<b>7</b>	<b>6</b>	<b>18</b>	<b>4</b>
3rd Year	3	2	13	1
4th Year	11	9	39	12
<b>Total Students</b>	<b>14</b>	<b>11</b>	<b>52</b>	<b>13</b>

## Describing the context of clinical education

Within this section there are four categories of results, as follows:

### 1. The role students take in client care

Twenty nine students claimed their role in the respective clinics was one of co-treatment with their educator, whereas sixty-five students reported their role was as a semi-autonomous practitioner.

The majority of third year students co-treated clients with the educator, whereas the majority of fourth years worked as semi-autonomous physiotherapy practitioners. In Private and Public Hospitals, students mostly worked as semi-autonomous practitioners, whereas in Private Practice and the Community clinic setting they tended to co-treat.

### 2. The typical student to educator ratio

Students and educators confirmed that the most common student to educator ratio was 2:1, with the second most common arrangement 1:1. There were minimal differences between the four educational settings.

### 3. The typical student to client ratio

The students and the educators reported, on average, that students saw up to ten (10) clients per day in each type of clinical setting except the Community clinic where they tended to see up to five per day, which is half the number of clients.

### 4. Seeking client's informed consent to care by students

There were three questions in this category of the educators' survey and the responses are presented in Table 11 below. The mean scores for the educators' responses to the question concerning how often they discuss what the student is learning with the

individual client reflected that, overall, they do 'sometimes', except less so in the Public Hospital setting.

The mean scores for the educators' responses to the question 'How often do you ask the client to give informed consent to student participation in their care?' indicated a high 'often–always' response generally and across all settings. The mean scores for the educators' responses to the question 'How often do you invite the client to be an active participant in the student's learning?' indicated an overall 'sometimes' response with a lower frequency again identified in the Public Hospital setting.

**Table 11. The Mean of the scores of the educator report regarding seeking informed consent.**

Information given to the client: <i>How often do you?</i>	Overall responses (n=37)	Private Practice (n=7)	Community Clinic (n=6)	Public Hospital (n=18)	Private Hospital (n=4)
a) discuss what the student is learning with client	3.3	4.4	3.7	2.9	3.5
b) obtain informed consent from the client for the student to be involved in his/her health care	4.7	5	4.8	4.6	5.0
c) invite the client to be an active participant in the student's learning	3.3	3.9	3.5	2.9	3.5

### **The profile of the physiotherapy clinical educator**

Thirty-two of the thirty-seven educators reported they had three or more years' experience in clinical education. The other five respondents were less experienced. Thirty reported they had undertaken professional development in relation to clinical education. Table 12 shows the main professional development activities that the educators have participated in. These were either a clinical education meeting or a one-day workshop offered at the university or in their workplace. Only one had attended a weekend seminar and only one had a formal qualification.

**Table 12. The clinical educators' professional development activities.**

Professional Development Activity	Private Practice	Community Clinic	Public Hospital	Private Hospital
Attended clinical education meetings in the workplace	1		5	1
Attended a one-day workshop organized by a university	3		2	
Attended a one-day workshop organized by the workplace	0	4	6	1
Attended a weekend seminar	0		1	
Has formal qualifications in clinical education	1			
Other	2	1	2	

Because there was not a lot of difference, except where indicated, among the opinions of the educators in all four settings, their general consensus was as follows:

- Most educators from all the settings reported that they *did* have time to undertake professional development activities in clinical education;
- Those working in Private Practices were the only group who *did not* think clinical educators were underpaid or undervalued;
- None of the educators reported that working with students was onerous;
- They *did* have time to allocate to student education; and
- They all felt comfortable asking clients to participate in students' educational activities and they did not think the presence of the student inhibited the physiotherapist–client relationship.

It is notable that most educators from all the settings reported that they *did* have time to undertake professional development activities in clinical education and yet when asked what activities they participated in, they indicated that, in the main, they attended one-day workshops. Perhaps this indicates their lack of awareness of other options.

Moreover, all the educators felt confident in their educational skills. They felt they were supported by the university, which provided clear instructions regarding students' activities and they felt valued for their contributions to education within the clinics in which they worked. So the data presented above describes the participants, the circumstances in which they work and what the clinical educators brought to the setting. Next follows the themes that emerged from students' responses to the open ended survey questions.

## **The students' views on clinical education: What students valued and what they found difficult**

There were five themes identified from the student responses that related to what they valued in clinical education. A sample of two stages of analysis that led to the development of these Themes is presented in Appendix 3. The students looked upon the clinical education experience as:

- 1) an opportunity to improve their communication, rapport and skill development;
- 2) a way to fully appreciate the exposure to individuals with pathology;
- 3) a memorable learning experience;
- 4) the chance for enhancement of their clinical reasoning and decision making; and
- 5) providing a heightened sense of responsibility.

Each of these themes is expanded below.

### **Theme One: Communication, rapport and skill development**

Students were aware that treating real clients required a consideration of the 'people' not just the 'disease'. They understood that each client had a unique personality and they responded to them as practitioners in different ways. Students were also aware that clinical practice provided them with the experience of working with different kinds of people who had different belief systems, multiple social factors and, therefore, differing levels of compliance. They realised all those factors impacted on the treatment plan and outcome.

In addition, the students acknowledged that clinical practice provided them with rich experiences of the realities of practice. Because of their participation, they were able to consider over a period of time their own views of the realm of the physiotherapy health care paradigm.

- *'It puts all theoretical knowledge into context and highlights the different communication strategies that need to be applied for people with different belief systems and levels of compliance'. (Student No. 16)*
- *Rapport with client using client history and matching certain aspects to their symptoms, Handling techniques for different ages, sizes and problems'. (Student No.82)*

### **Theme Two: Exposure to individuals with pathology**

In clinical practice students got to see what the conditions were really like. They gained from the experiences of working with people who had genuine pathology, sometimes

multiple pathologies. Students reported that their clinical experience made them 'fine tune' their skills for each and every client.

Students recounted that they gained experience with real people, with real problems and very individual needs, which was not something they could get from simulated learning situations. Students reported that these experiences made them adapt to the clients' situation, for example, adapting handling techniques for different ages, sizes, and problems.

- *'They have "real" problems, rather than when we work on each other in class. They also have multiple injuries and social factors and other factors which impact on their condition and outcome'.* (Student No.9)

### **Theme Three: Memorable learning experiences**

Clinical practice was considered to be highly valuable and was a more memorable learning experience because it was easier to remember a client and their condition, treatment and outcome, than it was to remember textbook and classroom theories.

- *'I find it easier to remember a person rather than a lot of theory. Applying skills to a person with pathology is far more valuable than memorising theory'.* (Student No.30)
- *'Sticks in your mind better, you can get a chance to apply the theory and you learn, it increases confidence'.* (Student No. 26)

### **Theme Four: The enhancement of clinical reasoning and decision-making**

Clinical practice forces the use of clinical reasoning skills and their application of theoretical knowledge to contextual practice. These experiences consolidated their understanding of what they learned at university. Students reported that they gained: a better idea of tissue healing, the ability to put together a complete assessment and treatment plan, improved handling skills, and an understanding of the physiological reactions and restrictions.

- *'It helps you apply conditions and treatment to a real person. Makes you adapt your skills for every client as they are never a 'textbook' case'.* (Student No.19)



### Theme Five: The increase in a sense of responsibility

Students said working with real clients made them accountable for their knowledge deficits. Students liked working with a variety of people with different pathologies, increased their confidence. Working with real clients prepared students for any contingencies, because they knew that all clients reacted differently and their management of the client must then be adjusted accordingly. Students stated that they knew they needed to adjust the way they treated each client. Students reported that working with real clients forced them to apply their full concentration and knowledge because a person's welfare was at stake. Students valued the opportunity to explore their own strengths and weakness and to achieve clinical results on their own merit. The five themes above showed what students valued about practice education, having had recent first-hand experience. However, when I was interpreting the general qualitative responses to the various difficulties below, I could see that there were differences in the different settings. Therefore, I decided to present this work under the four categories of settings first and then conclude with the identification of four clear themes. I thought this would be a more useful way of reporting the findings. So the next section starts with the overall quantitative results from the student survey.

- *'Forces me to apply my full concentration and attention and knowledge as a person's welfare is at stake'.* (Student No. 54)

### Explaining the difficulties student have

Table 13, below, demonstrates how eighty-five (85) students responded when asked if they had difficulty with clients, displayed according to the four different clinical education settings. Even though the numbers of respondents with difficulties was small, when divided into each type of clinical education setting, this was informative.

**Table 13. The number of students experiencing difficulties in different clinical education settings.**

Difficulty	Private Practice	Community Clinic	Public Hospital	Private Hospital
Yes	4	2	13	2
No	10	9	35	10

Some of these students expanded on their responses to the above written qualitative explanations. These are presented below under the headings of the four different clinical education settings.

#### Students working in Private Practice

'In the Private Practice setting, four of the 14 (4/14) students said they had difficulty with clients. Their comments were:

- *'In Private Practice the clients might object to paying for treatment by a student'* (Student No.4).
- *'That it takes time to think through issues/conditions'* (Student No.5).
- *'Language is a problem. It's hard if you can't express yourself like you want to'* (Student No.85).
- *'Thinking and integrating my ideas into a client-centred approach is difficult and sometimes communicating my ideas succinctly is difficult'* (Student No.86).

### **Students working in Community Clinic Settings**

In the Community setting, two out of six (2/6) students said they had difficulty with clients and one wrote that this was 'When clients refuse care but they are cognitively impaired' (Student No.19).

### **Students working in Public Hospitals**

In the Public Hospital setting, thirteen out of thirty-five (13/35) students said they had difficulty with clients. A selection of their comments is below:

- *'Different personalities etc. coming across difficult clients and dealing with them comes with experience'* (Student No.9).
- *'When other staff (not Physio) don't allow you to do your job'* (Student No.11).
- *'Sometimes feel unprepared with complex clients. Not sure what is the cause behind their problem'* (Student No.12).
- *'Sometimes difficult personalities or people who are hard to communicate with'* (Student No.22).
- *'Sometimes: very sick clients refuse treatment and very young kids who do not understand situations'* (Student No.29).
- *'Only sometimes, for example, when clients have difficult behavioural characteristics that may impair your treatment plan being implemented successfully'* (Student No.47).
- *'Sometimes, I feel young and inadequate as I am only a student. It can be hard to deal with much older people who feel they are 'more important' or 'superior'* (Student No.60).
- *'Cognitively impaired clients. The client's understanding of instructions'* (Student No.70).
- *'Client may not like physios, therefore don't treat you well'* (Student No.78).

### **Students working in Private Hospitals**

In the Private Hospital setting two out of twelve (2/12) students reported they had difficulty with clients. Their comments are below. The first student said:

*'Confidence with accurately communicating with clients about their condition. Worry too much that explanation may be wrong or inappropriate'* (Student No.67).

The second student said:

*'I sometimes find it difficult integrating all the theory learnt at university in the clinical situation under pressure when there is limited time to think and process my preliminary ideas into a well rounded treatment'* (Student No.93).

To summarise, four (4) themes emerged from the data concerning difficulties students found in clinical education. They were:

1. Being unsure of their knowledge in certain conditions.
2. Difficulty integrating theory within practice.
3. Being unsure of how to explain things to older people and very young people.
4. Communication with clients, management issues such as increasing compliance with the treatment plan. For example, when managing: cognitively impaired people, people with difficult personalities, those with language barriers, other clinic staff and the clients' expectations and behaviours when they think they have paid for more than just having a treatment by a student.

This part described the students' overall perceptions of clinical education whereas the next section focuses on what they think of their clinical educators and how they interacted with them and their clients. This was a report on the results of the quantitative questions and therefore most of these results are shown through graphs, with some additional commentary.

### **Describing students' views of their educators' teaching characteristics**

In the following sections there were ninety-four student respondents and ninety (n=90) of them worked in the four settings, which was explained before. Separate from that, not all the questions were answered by all the students so, for that reason, in each of the tables, in addition to the mean, I gave the actual number of student responses. Therefore, no percentages were given, making the data more honest and easier to

interpret. The student survey results presented in Table 14 below are shaded into three broad areas: results that fell within the mean 4.1+; results that fell within the mean 3.4–4; and results that fell within the mean 1.8–2.8.

The first category of means (4.1+) show that students perceived their clinical educator to be respectful to them and to the clients and to be competent in physiotherapy clinical practice and knowledge. The second category of means (3.4–4) indicated students regarded the clinical educators as having good communication skills, that they were accessible and well prepared and organised. The educators were able to provide good feedback, pointing out relevant events and opportunities. They enjoyed teaching and appeared to be open-minded and to question students in order to extend their thinking. They showed empathy for the students.

Overall, the 1.8–2.8 range of means showed that there was agreement among the students that clinical educators did not embarrass them, were not unclear and did not miss pointing out events that would help the students to learn and they did not use sarcasm towards students.

Table 15, demonstrates the mean of the students' responses regarding their clinical educators' teaching behaviours in the four different settings. In particular though, there were lower mean scores in the Private Hospital setting compared to the other settings relating to questions: i) seems to enjoy teaching, m) displays good communication skills, n) seems open minded and o) is respectful of students. Further, there are higher mean scores in the Private Hospital setting to questions, s) uses sarcasm / inappropriate humour and t) being given unclear clues. It appears from the analysis that the physiotherapy educators in the Private Hospital setting displayed less enabling characteristic than their peers.

**Table 14. The rank means of the students' reports on educators' teaching behaviours.**

Mean	Behaviour
4.4	demonstrates that he/she is competent in clinic in physiotherapy
4.4	seems to be respectful of clients
4.2	demonstrates that he/she has a broad base of knowledge in physiotherapy
4.1	seems to be respectful of students
4	seems to be accessible to students
4	displays good communication skills
3.9	gives feedback on what you do in clinic
3.9	seems to be well organized
3.9	seems to be well prepared
3.8	points out all the events and opportunities in clinic that may help you learn
3.8	seems to enjoy teaching
3.8	seems to be open-minded
3.7	asks questions which extend your knowledge
3.4	gives feedback on what you think about in clinic
3.4	demonstrates that he/she has an understanding of what it is like to be a student
2.8	asks for your feedback on his/her teaching
2.8	corrects your work in front of others
2.6	gives you unclear cues about what is expected
2.2	misses events that would have helped you learn
2	questions you at inappropriate times
1.8	uses sarcasm / inappropriate humour

### **Describing the students' views of feedback**

The results in Table 16 below show that overall, and across the four settings, students had a positive view about the tenor of the feedback they were given by their educators. However, there were some differences between settings. In Private Practice the educators provided less feedback to the students about why their response or action was either right or wrong when compared to the other settings. The Private Hospital settings received higher scores about the tenor of feedback overall.

**Table 15. The mean of the students' response about clinical educators' teaching behaviours from different clinical settings.**

Behaviours	Private Practice	<i>n</i>	Community Clinic	<i>n</i>	Public Hospital	<i>n</i>	Private Hospital	<i>n</i>
a) demonstrates that he/she has broad base of knowledge in your health science discipline	4.1	14	4.2	11	4.3	51	4.1	13
b) demonstrates that he/she is competent in clinic in your health science discipline	4.3	14	4.2	11	4.3	51	4.2	13
c) points out all the events and opportunities in clinic that may help you learn	3.7	14	3.7	11	4.0	51	3.4	13
d) misses events that would have helped you learn	2.4	14	2.1	11	2.1	52	2.2	13
e) asks questions which extend your knowledge	3.5	13	3.9	11	3.8	52	3.3	13
f) gives feedback on what you do in clinic	3.7	14	4.1	11	3.9	52	3.6	13
g) gives feedback on what you think about in clinic	3.7	13	3.2	10	4.3	42	3.1	12
h) demonstrates that he/she has an understanding of what it is like to be a student	3.7	14	3.5	11	3.4	52	3.0	13
i) seems to enjoy teaching	4.1	14	4.0	11	3.9	52	2.9	13
j) seems to be well organized	3.9	13	3.7	11	4.0	52	3.9	13
k) seems to be well prepared	3.9	14	3.9	11	4.0	52	3.9	13
l) seems to be accessible to students	4.1	14	4.0	11	4.0	52	3.6	13
m) displays good communication skills	4.0	14	4.0	11	4.1	52	3.4	13
n) seems to be open-minded	3.7	14	4.0	11	3.8	52	3.4	13
o) seems to be respectful of students	4.3	14	4.2	11	4.2	52	3.6	13
p) seems to be respectful of client	4.4	14	4.1	11	4.5	52	4.0	13
q) ask for your feedback on his/her teaching	2.4	14	2.6	11	3.0	52	2.2	13
r) corrects your work in front of others	3.2	13	2.3	11	2.7	52	2.9	13
s) uses sarcasm/inappropriate humour	1.9	14	1.6	11	1.7	52	2.5	13
t) gives you unclear cues about what is expected	2.6	14	2.3	11	2.6	52	3.2	13
u) questions you at inappropriate times	1.5	14	2.2	11	2.1	52	2.2	13

Key: n = number of responses

**Table 16. The mean scores, students' views on feedback.**

Feedback from the educator	Overall responses	<i>n</i>	Private Practice	<i>n</i>	Community Clinic	<i>n</i>	Public Hospital	<i>n</i>	Private Hospital	<i>n</i>
a) Gives positive feedback	3.7	94	3.6	14	3.7	11	3.8	52	3.7	13
b) Explains why response/action is right	3.6	94	3.1	14	3.6	11	3.8	52	3.5	13
c) Explains why response/action is wrong	3.7	94	3.2	14	3.6	11	3.8	52	4.0	13
d) Identifies areas to improve	3.8	94	3.6	14	3.6	11	3.9	52	4.0	13
e) Gives needless direction/explanation	2.5	93	2.6	14	2.5	10	2.4	52	2.7	13
f) Gives incorrect information	1.9	94	1.9	14	2.1	11	1.8	52	1.8	13

Key: *n* = number of responses

## Describing client and student interactions

With regards to the client and student interactions in the student survey, I asked two different styles of questions. The first was quantitative, about the general tendency for students to ask for feedback from clients. However, when the client said that the intervention was not going according to their expectations I was curious to find out what actions the student would take to this feedback. I wanted to explore how the student managed that feedback and how they then interacted with the client and their educator. So, the second was an open-ended, qualitative question inviting free comment on what actions students took when they suspected the client had experienced an adverse effect from their intervention.

The results presented in Table 17 below show how eighty-eight (88) students in the four different settings responded when they were asked if they were likely to ask the clients for feedback all of the time, or at least sometimes, or not at all. These figures illustrate that in the Public Hospital settings a small number of students reported that they did not ask the client for feedback at all.

**Table 17. The students' reports on the frequency with which they asked the client for feedback in different settings.**

Ask for Feedback	Private Practice	Community	Public Hospital	Private Hospital
Yes	6	8	32	4
No	0	0	3	0
Sometimes	8	3	15	9

The findings from the open-ended question mentioned above, about whether the client feedback highlighted an adverse outcome, eighty (80) of the students provided written responses and, in some answers, students provided more than one response, showing they would act in several different ways. On close analysis, their comments fell into three categories:

- 53/80 of the students said they would alert the clinical educator;
- 22/80 of the students said they would discuss the issue with the client; and
- 19/80 of the students said they would work the issues out for themselves.



Several examples of students' thinking on the issue of their actions regarding adverse events are presented below:

Student (No. 58) fell into the first category when they said: *'[I would] talk with the clinical educator about changing treatment and if my treatment could have affected them [the client].'*

In the second category where the students indicated they would discuss the adverse issue directly with the client, one student said:

*'[I would] advise them to be aware of their progress, and, depending on the actual intervention itself: that it will settle down' (Student, No. 83).*

Another student (No. 48) viewed an adverse event as the client's doing. That student said: *'Tell them not to do it!'*

Several students indicated in the third category that they would not consult their clinical educator necessarily but would try to work the problem out for themselves. For instance, student (No. 30) said: *'[I would] try to improve my technique if possible — try to rectify the problem.'* Whereas student (No. 85) said: *'Admit you did something wrong. Try another strategy.'*

These short exemplars show the students' mixed responses and their various thoughts and actions that related to feedback from the client when, in their perception, an adverse clinical event had happened. What is particularly interesting in the 19/80 group of comments (almost 25%) is that these responses have not given a strong indication that they would relay this feedback to the educator. The latter finding is an important area for future research. The next section, however, more specifically describes the content of what the students and educators actually discussed.

### **Describing the timing and content of student and educator discussions**

This section presents the survey results concerning the timing and the content of the student–educator discussions about individual client care. The students' and educators' results are presented separately. This is followed by a comparison of these responses about the content of their discussions which shows statistically the dissimilarities in their perceptions of what they discuss.

In the first instance, and presented below, are the mean scores of the students' and the educators' responses to the questions related to the specific timing during the intervention of their discussions around each client–student encounter in the day to day milieu of physiotherapy clinical education. These are presented in Tables 18 and 19 respectively. These results clearly show the discrepancy between the students' and educators' reports of the timing of discussions in the four different settings. The students reported they have infrequent discussion with their educators during or after a consultation with a client. This was in stark contrast, and in almost a complete reverse, of the educators' reports. Those discrepancies were most marked in the Private Practice and Private Hospital settings, particularly in relation to the frequency of briefing sessions. Whereas the students' results showed that the lowest frequency of discussions during a consultation and de-briefing sessions was in the Private Hospital setting.

**Table 18. The means of the students' responses of the timing of their discussions with their educators.**

Timing of student and educator discussions	Overall responses	<i>n</i>	Private Practice	<i>n</i>	Community Clinic	<i>n</i>	Public Hospital	<i>n</i>	Private Hospital	<i>n</i>
a) briefing sessions	3.2	71	2.8	9	3.8	5	3.3	42	2.7	12
b) discussion during the consultation	3.0	92	3.2	14	3.0	11	3.0	50	2.4	13
c) de-briefing sessions	3.0	91	3.0	14	3.2	11	3.0	59	2.5	13

Key: *n* = number of responses

**Table 19. The means of the educators' responses related to the timing of their discussions with students.**

Timing of student and educator discussions	Overall responses	<i>n</i>	Private Practice	<i>n</i>	Community Clinic	<i>n</i>	Public Hospital	<i>n</i>	Private Hospital	<i>n</i>
a) briefing sessions	4.0	37	4.3	7	4.3	6	3.6	18	4.3	4
b) discussion during the consultation	3.4	37	4.0	7	3.0	6	3.5	18	3.3	4
c) de-briefing sessions	4.1	37	4.4	7	4.3	6	4.0	18	4.0	4

Key: *n* = number of responses

As this was a retrospective survey of what students and educators remembered of their discussions over a period of a month of clinical education, it would be difficult to be exacting statistically in their reflections of what was said and how often. However, the following Tables 20 and 21 present the mean scores of the students' and educators' responses when asked how often they discussed a given list of given topics.

The analysis shows disparity between what the two groups remembered of their individual experiences. The students' reports are presented in Table 20 and the educators' reports in Table 21. The differences between the two perspectives can be seen at a glance. The educators' responses showed they believed they discussed with students the given list of topics with far greater frequency than the students remembered. There appeared to be very little difference between the four different types of clinical education settings.

**Table 20. The Mean of the scores from the students' responses about the content of their discussions with educators.**

Topics and sub-items	Overall responses	<i>n</i>	Private Practice	<i>n</i>	Community Clinic	<i>n</i>	Public Hospital	<i>n</i>	Private Hospital	<i>n</i>
<b>Assessment</b>										
a) the salient features of the case history	3.6	89	3.7	14	3.6	10	3.7	48	3.2	13
b) The symptomatology	3.7	89	3.7	14	3.6	10	3.7	48	3.3	13
c) The current status of the client	4.0	88	3.9	14	4.0	10	4.0	47	4.0	13
d) The diagnosis	3.8	89	3.7	14	4.0	10	3.8	48	3.6	13
e) Strategies for assessment	3.8	89	3.9	14	3.7	10	3.8	48	3.6	13
<b>Planning</b>										
f) The findings from the diagnosis / assessment	3.8	89	3.6	14	3.7	10	4.0	48	3.5	13
g) Techniques / intervention selection	3.8	89	3.6	14	3.8	10	3.9	48	3.7	13
<b>Intervention</b>										
h) Implementation	3.8	88	3.6	14	3.8	10	3.7	47	3.6	13
<b>Evaluation</b>										
i) The criteria for determining the response to treatment	3.4	89	3.4	14	3.6	10	3.4	48	3.2	13
j) The continuum of care and advice given to client for between visits	3.6	89	3.2	14	3.7	10	3.7	48	3.3	13

Key: n = number of responses

Table 20, *continued*.

	Overall responses	<i>n</i>	Private Practice	<i>n</i>	Community	<i>n</i>	Public Hospital	<i>n</i>	Private Hospital	<i>n</i>
<b>Discussion of Rationale</b>										
k) The rationale for the diagnosis	3.5	90	3.5	14	3.6	11	3.6	48	3.0	13
l) The rationale for the assessment strategy	3.6	90	3.6	14	3.6	11	3.6	48	3.0	13
m) The rationale for the treatment/ intervention	3.8	90	3.6	14	3.7	11	3.9	48	3.5	13
n) The rationale for the criteria to evaluate response to care	3.5	89	3.5	14	3.5	11	3.5	48	3.0	12
o) The rationale for the continuum of care and advice given to the client for between visits	3.5	90	3.3	14	3.6	11	3.4	48	3.3	13
p) The rationale for overall treatment plan	3.7	88	3.4	14	4.0	11	3.7	46	3.5	13
q) What the client contributed to the discussion/care plan	3.3	78	3.0	12	3.7	10	3.2	41	3.0	12
r) The students' experience with similar cases	3.0	88	3.0	14	3.4	11	3.0	47	2.6	12

Key: n = number of responses

**Table 21. The Mean of the scores from the educators' responses about the content of their discussions with students.**

Topics and sub-items	Overall responses (n=37)	Private Practice (n=7)	Community Clinic (n=6)	Public Hospital (n=18)	Private Hospital (n=4)
<b>Assessment</b>					
a) The salient features of the case history	4.5	4.6	4.5	4.6	4.5
b) The symptomatology	4.6	4.7	4.9	4.6	4.3
c) The current status of the client	4.5	4.9	4.7	4.3	4.8
d) The diagnosis	4.5	4.7	4.5	4.4	4.5
e) Strategies for assessment	4.4	4.6	4.8	4.2	4.3
<b>Planning</b>					
f) The findings from diagnosis / assessment	4.7	4.9	4.7	4.7	4.5
g) Techniques / intervention selection	4.7	4.7	4.8	4.7	4.3
<b>Intervention</b>					
h) Implementation	4.4	4.7	4.3	4.3	4.3
<b>Evaluation</b>					
i) The criteria for determining the response to treatment	4.3	4.4	4.7	4.2	4.0
j) The continuum of care and advice given to client for between visits	4.3	4.4	4.0	4.4	4.0

Key: n = number of responses

Table 21 continued.

Topics and sub-items	Overall responses (n=37)	Private Practice (n=7)	Community Clinic (n=6)	Public Hospital (n=18)	Private Hospital (n=4)
<b>Discussion of Rationale</b>					
k) The rationale for the diagnosis	4.4	4.6	4.3	4.3	4.3
l) The rationale for the assessment strategy	4.4	4.3	4.5	4.4	4.3
m) The rationale for the treatment/intervention	4.5	4.3	4.3	4.6	4.5
n) The rationale for the criteria to evaluate response to care	4.1	4.4	3.8	4.3	3.8
o) The rationale for the continuum of care and advice given to client for between visits	4.0	4.4	3.5	4.2	3.8
p) The rationale for overall treatment plan	4.4	4.6	3.8	4.4	4.5
q) What the client contributed to the discussion/care plan	3.5	3.9	3.3	3.4	3.3
r) The student's experience with similar cases	3.4	3.6	3.3	3.3	3.5

Key: n = number of responses

**On reflection**, after analysing the above results, and because there was such a discrepancy between the students' and educators' reports, and because the educators believed they 'often' or 'always' discussed the list of given topics and sub-items, I analysed this data further.

I decided to rank the means of the students' scores to try and elicit the sub-items within topics they said they discussed less frequently. The sub-items least discussed are presented in Table 22 below. In some settings there were several sub-items which had the same mean and they are included in the table because they had the six (6) lowest mean scores in that setting. To avoid needless repetition I decided to examine this data just from the students' perspectives in order to highlight to the reader the gaps in the students' remembrance of the dialogue that took place.

From these results it is evident that the rank order varied between the different settings. Although the rank order of the means varied between settings, the most overlooked sub-items of discussion, according to the students in all the settings, were:

**1. The students' experience of similar cases.** The educator was not building on or constructing the students' knowledge.

**2. What the client contributed to the care plan.** This indicates a lack of focus on what each individual client brings to the education setting or rather what the individual 'adds' to the students' learning about physiotherapy health care.

Across the four settings there were reportedly infrequent discussions of 'the rationale and or the actual criteria for determining the response to treatment'. It can be inferred that educators were not developing the students' knowledge of how to measure client progress. In all settings there was infrequent discussion about the 'rationale for the continuum of care and the actual advice given to client for between visits'. Here again, this indicates the educators were not developing the students' skills regarding what advice to give to different clients under individual and perhaps unique circumstances. Of particular importance, in the Community setting the students reported that there was infrequent discussion about 'the rationale for the treatment plan'. Similarly, in Private Hospitals, the students reported infrequent discussions about 'the rationale for the assessment strategies and treatment intervention'. In the Public Hospital settings, it seems that further explanation of the diagnosis, the assessment strategies and the intervention given to the client are required. The lack of discussion of all these issues,



if they occur on a widespread or regular basis, is likely to have significant impact on the students' development of a deeper understanding of their practice, their ability to reflect on practice and thus to re-formulate these clinical concepts for future practice.

The results from the student survey regarding what topics the students would like to discuss in an 'ideal world' scenario are presented next in Table 23 below. My reason for asking this question came directly from what I learned through my Master's study, in which I asked the students to identify where in the client consultation they most wanted to discuss the case with their educator. This showed the timing of these desirable interjections. In this higher level study I wanted to explore more thoroughly the students' wishes about the content of those discussions from a given list. Therefore, I asked them how often they desired to discuss this given list of topics with their educator. The results showed that students wanted to discuss the full range of topics listed in the categories 'often' or 'always'. This was consistent across all settings with very few exceptions.

**Table 22. The sub-items within the themes discussed the *least* between students and educators.**

Overall Responses	Private Practice	Community Clinic	Public Hospital	Private Hospital
r) The student's experience with similar cases	r) The student's experience with similar cases	r) The student's experience with similar cases	r) The student's experience with similar cases	q) What the client contributed to the discussion/care plan
q) What the client contributed to the discussion/care plan	q) What the client contributed to the discussion/care plan	q) What the client contributed to the discussion/care plan	q) What the client contributed to the discussion/care plan	r) The student's experience with similar cases
o) The rationale for the continuum of care and advice given to client for between visits	l) The rationale for the assessment strategy	o) The rationale for the continuum of care and advice given to client for between visits	o) The rationale for the continuum of care and advice given to client for between visits	o) The rationale for the continuum of care and advice given to client for between visits
n) The rationale for the criteria to evaluate response to care	m) The rationale for the treatment/intervention	n) The rationale for the criteria to evaluate response to care	i) The criteria for determining the response to treatment	n) The rationale for the criteria to evaluate response to care
i) The criteria for determining the response to treatment	o) The rationale for the continuum of care and advice given to client for between visits	p) The rationale for overall treatment plan	e) Strategies for assessment	i) The criteria for determining the response to treatment
j) The continuum of care and advice given to client for between visits	n) The rationale for the criteria to evaluate response to care	j) The continuum of care and advice given to client for between visits	n) The rationale for the criteria to evaluate response to care	j) The continuum of care and advice given to client for between visits
	i) The criteria for determining the response to treatment		k) The rationale for the diagnosis h) Implementation c) The current status of the client	

**Table 23. The means of the students' 'wish list' for topics and sub-items of discussions.**

Students wish list of topics and sub-items for discussion	Overall responses (n=86)	Private Practice (n=14)	Community Clinic (n=9)	Public Hospital (n=46)	Private Hospital (n=13)
<b>Assessment</b>					
a) The salient features of the case history	3.9	4.0	4.3	3.7	3.7
b) The symptomatology	4.0	4.2	4.3	3.9	3.9
c) The current status of the client	4.0	4.3	4.6	4.0	3.9
d) The diagnosis	4.2	4.5	4.3	4.0	4.0
e) Strategies for assessment	4.2	4.3	4.3	4.1	4.0
<b>Planning</b>					
f) The findings from the diagnosis/assessment	4.1	4.2	4.2	4.9	4.0
g) Techniques/intervention selection	4.3	4.4	4.4	4.2	4.3
<b>Intervention</b>					
h) Implementation	4.0	4.0	4.3	4.0	4.0
<b>Evaluation</b>					
i) The criteria for determining the response to treatment	3.9	3.9	4.0	4.0	3.7
j) The continuum of care and advice given to client for between visits	3.9	3.9	4.2	3.9	3.7

**Table 23 continued**

Students wish list of topics and sub-items for discussion	Overall responses (n=86)	Private Practice (n=14)	Community Clinic (n=9)	Public Hospital (n=46)	Private Hospital (n=13)
<b>Discussion of Rationale</b>					
k) The rationale for the diagnosis	4.0	4.0	4.1	3.9	4.1
l) The rationale for the assessment strategy	4.0	4.0	4.2	4.0	4.0
m) The rationale for the treatment/intervention	4.1	4.0	4.2	4.0	4.1
n) The rationale for the criteria to evaluate response to care	4.0	3.9	4.3	4.0	3.9
o) The rationale for the continuum of care and advice given to client for between visits	3.9	4.0	3.9	3.7	4.0
p) The rationale for the overall treatment plan	4.1	4.0	4.3	4.0	4.0
q) What the client contributed to the discussion/care plan	3.7	3.9	4.1	3.6	3.8

All these results above conclude the first and second phases of analysis. The following sections of this chapter present more robust statistical analyses of the students' and educators' responses, with particular reference to the content of their discussions and their desires. I wanted to know if such analyses showed more specific details of similarities and discrepancies. Finally, the following section wraps up Part One of the study by presenting a 'snapshot' view of clinical education in physiotherapy across the four different settings, in relation to the students' perceptions of the educators' characteristics, the tenor of the feedback given to them by their educators and the timing and content of student–educator discussions. I believe this adds to the montage that presents the findings and results at another level, thus increasing the validity of the research.

### **Comparative analysis of the students' and the educators' responses**

In this research study, as far as the survey data are concerned, there was no intention to pair particular students with particular educators. However, this cohort of students and this cohort of educators were involved in clinical education at the same time during the study period, which makes their responses comparable. The *t*-test analyses of the students' and the educators' mean responses about the actual *topics* of their discussions about client care are presented below. These topics followed the main process of intervention, namely: Assessment, Planning, Intervention, Evaluation and Discussion of Rationale. Each of these topics had a variety of *sub-items* which had been drawn from the literature. In the first phase of analysis all the sub-items under each topic were collapsed. On analysis of the topics of Assessment, Planning, Intervention, Evaluation and the Rationale, the means varied greatly between the two groups, with a consistent statistical significance at the ( $p < 0.001$ ) level. It can be inferred from this phase of analysis that the students and educators did not agree on the frequency with which these topics about client care were discussed between them. The students' perception of the situation was significantly different to the educators' perception, as explained below and in Table 24.

- Assessment (5 items):  $t(129) = 4.998, p < 0.001$ ;
- Plan (2 items):  $t(129) = 5.449, p < 0.001$ ;
- Intervention (1 item):  $t(129) = 4.360, p < 0.001$ ;
- Evaluation (2 items):  $t(129) = 5.240, p < 0.001$ ; and
- Extended Discussion (8 items):  $t(129) = 4.826, p < 0.001$ .

The next step of analysis was to compare the sub-items. I wanted this to be more specific to reveal similarities and differences. Therefore, Table 25 below shows the differences on a sub-item by sub-item basis within each of the aforementioned topics.

Even further statistical analysis of the results in Table 25 above showed that, within and across each topic, sub-item by sub-item, all the differences were statistically significant at the ( $p < 0.001$ ) level. This result confirms that the students' perceptions of the situation are totally different from the educators' perceptions.

The following section shows the extended analysis done using the same procedure as outlined above. The student's report of what currently occurs was compared to their 'wish list'.

**Table 24. The means of the topic areas discussed by students and educators.**

<i>Topics of discussion</i>	Students' report		Educators' report	
	<i>mean</i>	<i>SD</i>	<i>mean</i>	<i>SD</i>
Assessment (5 sub-items)	17.82	5.540	22.59	2.753
Planning (2 sub-items)	7.23	2.348	9.41	.927
Intervention (1 sub-item)	3.71	.920	4.43	.647
Evaluation (2 sub-items)	6.64	2.223	8.65	1.111
Rationale (8 sub-items)	26.05	7.930	32.76	4.597

**Table 25. The means and standard deviations of the sub-items within each topic discussed by students and educators.**

<i>Topics of discussion with sub-items</i>	Students' report		Educators' report	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
<b>Assessment</b>				
a) The salient features of the case history	3.61	.912	4.54	.650
b) The symptomatology	3.65	.813	4.59	.644
c) The current status of the client	3.94	.958	4.54	.558
d) The diagnosis	3.81	.796	4.51	.692
e) Strategies for assessment	3.81	.928	4.41	.686
<b>Planning</b>				
f) The findings from diagnosis/assessment	3.81	.851	4.73	.450
g) Technique/intervention selection	3.83	.895	4.68	.530
<b>Intervention</b>				
h) Implementation of the intervention	3.71	.920	4.43	.647
<b>Evaluation</b>				
i) The criteria for determining the response to treatment	3.44	.878	4.32	.580
j) The continuum of care and advice given to client for between visits	3.57	.878	4.32	.709
<b>Discussion of Rationale</b>				
k) The rationale for the diagnosis	3.52	.851	4.41	.762
l) The rationale for the assessment strategy	3.57	.960	4.41	.644
m) The rationale for the treatment/intervention	3.82	.856	4.51	.607
n) The rationale for the criteria to evaluate response to care	3.41	.970	4.14	.787
o) The rationale for the continuum of care/advice for client between visits	3.47	.877	4.03	.897
p) The rationale for overall treatment plan	3.61	1.024	4.38	.639
q) What the client contributed to the discussion/care plan	2.89	1.326	3.49	.932
r) The students experience with similar cases	3.02	.977	3.41	.832

Key: SD= Standard Deviation

### Comparative analysis of the students' responses and their 'wish list'

Eighty-seven students responded to the question asking them to give their 'wish-list' of topics for their ideal clinical discussions and the eighty-seven responses were matched to what those students said they discuss with their clinical educators currently.

Similar to the above statistical procedures, the students' responses were analysed using an independent a *t*-test. The analysis of the topics is presented in Table 26 below. Table 27 shows the analysis of both the topics and the sub-items.

**Table 26. A comparison of students' reports of current topics of discussion with their 'wish list' of topics.**

<i>Topics of discussion</i>	Students' Report		Students' wish list	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Assessment (5 sub-items)	18.87	3.675	20.33	3.863
Planning (2 sub-items)	3.72	.924	4.02	.876
Intervention (1 sub-item)	7.66	1.648	8.37	1.615
Evaluation (2 sub-items)	7.00	1.607	7.78	1.735
Discussion of Rationale (7 sub-items)	24.10	5.243	27.62	5.666

Key: SD= Standard Deviation



**Table 27. A comparison of students' reports of current topics of discussion with their 'wish list', including sub-items within each topic.**

Topic of discussions with sub-items	Students' Report		Students' wish list	
	Mean	SD	Mean	SD
<b>Assessment</b>				
a) The salient features of the case history	3.62	.918	3.85	.883
b) The symptomatology	3.67	.816	3.95	.834
c) The current status of the client	3.94	.957	4.05	.888
d) The diagnosis	3.82	.800	4.15	.815
e) Strategies for assessment	3.83	.930	4.14	.967
<b>Planning</b>				
f) The findings from diagnosis/assessment	3.82	.856	4.10	.876
g) Technique/intervention selection	3.84	.901	4.26	.814
<b>Intervention</b>				
h) Implementation of the intervention	3.72	.924	4.02	.876
<b>Evaluation</b>				
i) The criteria for determining the response to treatment	3.44	.885	3.90	.890
j) The continuum of care and advice given to client for between visits	3.56	.872	3.89	.920
<b>Discussion of Rationale</b>				
k) The rationale for the diagnosis	3.51	.861	3.95	.875
l) The rationale for the assessment strategy	3.56	.923	4.03	.895
m) The rationale for the treatment/intervention	3.82	.870	4.08	.905
n) The rationale for the criteria to evaluate response to care	3.40	.982	3.95	.914
o) The rationale for the continuum of care and advice to client for between visits	3.44	.872	3.83	.879
p) The rationale for overall treatment plan	3.60	1.039	4.07	.887
q) What the client contributed to the discussion/care plan	2.85	1.332	3.70	.954

Key: SD= Standard Deviation

When the eighty-seven (87) student's responses were matched to their wish list responses, analysis to the point 0.05 level showed the following statistical significance in each of the topics as follows:

- Assessment (5 items):  $t(172) = -2.554$ ,  $p < 0.05$ ;
- Plan (2 items):  $t(172) = -2.881$ ,  $p < 0.05$ ;
- Intervention (1 item):  $t(172) = -2.190$ ,  $p < 0.05$ ;
- Evaluation (2 items):  $t(172) = -3.083$ ,  $p < 0.05$  ;and
- Extended discussion (8 items):  $t(172) = -4.242$ ,  $p < 0.05$ .

All of the above sub-items, with the exception of a) and c), were significant at the ( $p < 0.05$ ) level. This result from the comparison of the reality against the ideal indicated that the students would like to see an increase in the frequency of discussions in all these areas.

The two exceptions to these were sub-item a) *the salient feature of the case history*, which was only marginally significant  $t(172) = -1.683$ ,  $p < 0.10$ , and sub-item c) *the current status of the client*, which was found to be non significant  $t(172) = -.739$   $p = ns$ . Those two results indicated that these sub-items were discussed between the student and the educator to the students' level of satisfaction. Overall, though, the comparisons showed that the students, even in their wish-list of the ideal situation, were less requiring of discussion in most sub-items than what the educators' responses showed was the current status, as seen in Table 20.

The next and final phase of analysis of the responses to the students' and educators' questions about the content of their discussion was to identify the most frequently discussed sub-items.

### **The most frequent items discussed by students and educators**

An alignment between the students' and educators' responses about what they reported as the Top 10 sub-items they discussed were generated by ranking the mean responses. A summary showing the alignment is presented in Table 28. This table also includes the Top 10 sub-items the students put on their 'wish-list'. For ease of comparison, each sub-item has been colour coded.

**Table 28. The comparison of the Top 10 sub-items discussed between students and educators.**

Order	What the clinical educators said they usually discuss	What the students said they usually discuss	What students said they would like to be discussed (ideal)
1	The findings from diagnosis and assessment	The current status of the client	Technique/intervention selection
2	Technique/intervention selection	Technique/intervention selection	The diagnosis
3	The symptomatology	The rationale for the treatment/intervention	The findings from diagnosis/assessment
4	The current status of the client	The diagnosis	Strategies for assessment
5	The salient features of the case history	The findings from diagnosis and assessment	The rationale for the treatment/ intervention
6	The rational for the treatment/intervention	Strategies for assessment	The rationale for the overall treatment plan
7	The diagnosis	Implementation of the intervention	The current status of the client
8	Implementation of the intervention	The rationale for the overall treatment plan	The rational for the assessment strategy
9	The rational for the diagnosis	The symptomatology	Implementation of the intervention
10	Strategies for assessment	The salient features of the case history	The rational for the criteria to evaluate response to care

It can be seen from the above that there is a high correlation across topics, although this is not necessarily expressed in the same order. Perhaps clinical educators are in the habit of discussing certain items most of the time because they consider them of critical importance. Perhaps they predominantly discuss these issues because they don't have time to discuss other issues, despite wanting to. Irrespective of the reasons, the students want to discuss the topics that are currently being discussed. So, in a sense, this is evidence of student-centred teaching. However, educating students to become client-centred necessitates that all aspects of the clients' case are known to those involved in their health care.

The next section presents a global view of clinical education as a 'numerical snapshot'. This snapshot view represents a further phase of analysis undertaken to augment the developing montage. The intention was to conclude this chapter with a focus on the students' educational experiences. This contributes to the knowledge and understanding of the student-centred nature of contemporary physiotherapy clinical education, which was one of the research questions.

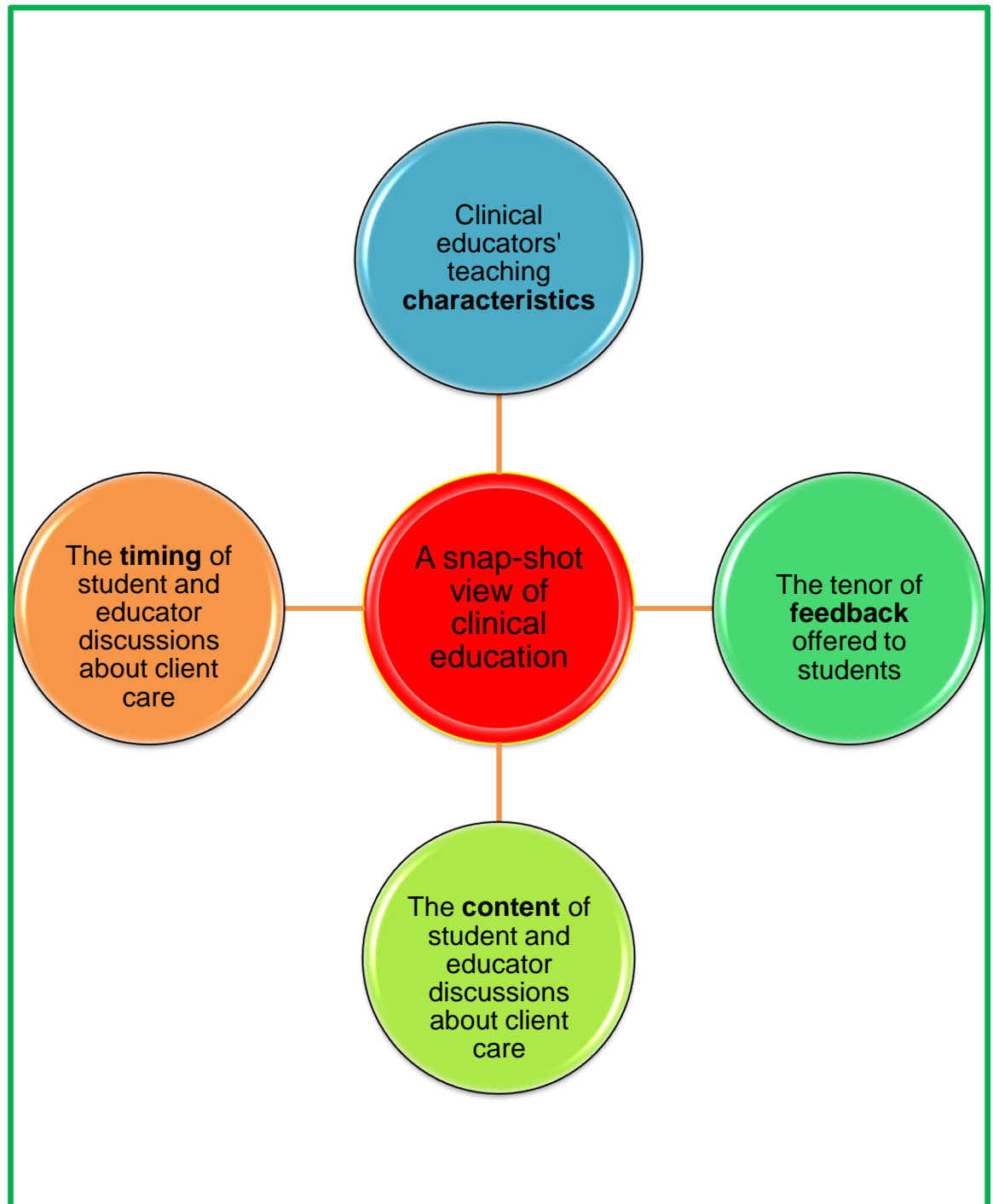
### **A global view of clinical education**

The students' survey responses provided an insight into education in different clinical education settings. I had noted in my diary that the students at the placement I visited responded to the survey items quickly. I speculated that distributing the survey was an effective means of evaluating the students' perception of the educational value of any clinical education setting in a professional and objective manner. In order to explore my conjecture further, I collated the data from each of the four clinical settings to ascertain if a numerical representation of the setting could be generated and if a statistical representation of students' perceptions about clinical education would make any sense.

To explain further, within the survey each student was asked about four (4) aspects of their clinical education. Adding them together gave a total of forty-nine questions. That is, the four (4) categories of questions and the number of questions in each category were:

- Clinical educators' behaviours: 21 questions;
- Feedback from the clinical educators: 7 questions;
- Timing of student and clinical educator discussions: 3 questions; and
- Content of student and clinical educator discussions: 18 questions.

The four (4) categories of questions and the number of questions in each category were as follows and the conceptualisation of the process is diagrammatically represented in Figure 8 below.



*Figure 8. A concept map of the collation of data to give a snap-shot view of a clinical education setting*

This phase of analysis was undertaken by giving a numerical value to each of the forty-nine (49) questions. By a summation of the values, it was possible to gain an overall numerical impression of students' educational experiences.

More specifically, the questions were worded as being either positive or negative. For example, a positive statement was couched in such terms as: *'How often does the clinical educator give you positive feedback?'* To such a question, a student response of either 'often' or 'always' was allocated one (1) point. If the student responded 'never' or 'rarely' then that response was allocated minus one (-1) point. Conversely, in a negatively worded question, for example: *'How often does the clinical educator use sarcasm?'* a student's response of 'often' or 'always' was allocated minus one (-1) point. If the student responded 'never' or 'rarely', the scores were allocated one (1) point. In the instances where a 'sometimes' response was recorded, irrespective of the positive or negative tone of the question, a score of point-five (0.5) was allocated. Using this numerical conversion individual student scores were tallied. This was done with every student who worked in each of the four different clinical education settings. As a final step, the scores from the four settings were summated and are presented in Table 29 below. The table also shows the calculation of the total points in each category, multiplied by the number of students from that setting, which provides a total number of possible points for each category and each setting. The total scores for each setting are also represented as a percentage (%) in the final column.

In the earlier tables, the number of students who responded to each question was given. These are not presented in Table 27 so as to improve clarity of the layout. But even so, the results have been calculated for the students who did respond. The results confirm that students in the Community setting and those in Public Hospital settings appear to have an optimal clinical education experience when compared to their peers who attended Private Practices and in Private Hospital settings.

**Table 29. The numerical summary of the educational effectiveness of the four clinical education settings.**

Clinical Education Setting	<i>n</i>	Clinical educators' teaching behaviours	Feedback	Timing of discussion	Content of discussion	Total Score and %
		21 questions	7 questions	3 questions	18 questions	
Private Practice	14	157/294	47/98	9/42	125/252	338/686 (49%)
Community Clinics	11	152/231	48.5/77	13.5/33	145/198	359/539 (67%)
Public Hospital	51	639/1071	210/357	41/153	552/918	1442/2499 (58%)
Private Hospital	13	112/273	53/91	-5.5/39	97/234	256.5/637 (40%)

## Summarising Chapter Five

This chapter presented the findings and results of Part One of this study, which was divided into two stages. Stage One consisted of the two qualitative interviews with the faculty members which were interpreted using thematic analysis. Stage Two consisted of the students' and educators' surveys which were both quantitative and qualitative but mostly the former. These were analysed in several ways. The quantitative questions were subjected to descriptive statistical analysis providing means so that they could be ranked. Comparative analysis was conducted using *t-tests* to student and educator responses to key questions. In contrast, the students' responses to four key categories of questions were given a numerical value, which enabled the snapshot numerical view to be presented. The open-ended questions were subjected to thematic analyses in different ways.

These analytical strategies facilitated the construction of a nested and layered representation of contemporary physiotherapy clinical education overall. It also enabled an analysis of the educational experiences in the four different clinical education settings: Private Practice, Community, Public and Private Hospitals. The results provide new information about physiotherapy clinical education. They showed the disparity between students' and educators' perceptions.

The next two chapters, Six and Seven, present the findings and results from the two stages of Part Two of the study. Chapter Six presents Part Two: Stage One, which consists of the findings from the observations of clinical education scenarios using the OAT. Chapter Seven presents the findings from Part Two: Stage Two, which were the subsequent interviews with clients, educators and students.



### **Key findings from the student survey**

- The majority of third year students co-treat, whereas the majority of fourth year students work as semi-autonomous physiotherapy practitioners.
- The most common student to educator ratio is 2:1.
- The students consult with up to ten clients per day, except in the Community setting where they consult with up to five.
- The students look upon clinical education opportunities as an opportunity to:
  - improve their communication, rapport and skill development;
  - be exposed to individuals with pathology;
  - have memorable learning experiences;
  - develop their clinical reasoning and decision-making abilities; and
  - develop a heightened sense of responsibility.
- The students say they experience feelings of inadequacy, they have communication difficulties, and feel confronted by some types of clients and certain types of illnesses during their clinical education opportunities.
- Even though there were slightly lower scores recorded in the Private Hospital Setting, overall students regard their educators as displaying the following characteristics: Physiotherapy clinical educators:
  - are respectful to students and clients
  - are competent in physiotherapy clinical practice;
  - have good communication skills, are clear and indicate they are open-minded;
  - are accessible, well prepared and organised;
  - enjoy teaching and ask questions which extend students' knowledge and;
  - do not embarrass students or use sarcasm.
- The feedback students state they are provided by their educators differs minimally between settings, with the Private Practice Setting noted as a setting where the students receive slightly less feedback. Across the board students regard their educators as providing them with positive and informative feedback.
- Students are, in the main, highly likely to ask their clients for feedback. However, this is slightly less frequent in the Private Hospital Setting.
- Just under one-quarter of the students' comments about managing adverse events indicated that they might not necessarily alert their educator if they thought a client had had an adverse clinical event.

### **Key findings from the clinical educators' survey**

- Most educators had three or more years' experience in clinical education.
- A one-day workshop is the most common form of professional development in clinical education.
- Educators say they have time to participate in professional development in clinical education.
- Except for the private practitioner educators, the respondents thought clinical educators were underpaid.
- The educators do not find working with students an onerous task and they feel confident in their educative skills.
- They feel comfortable asking the client if a student can be involved in their health care.
- Clients are 'often' or 'always' asked to give informed consent to student involvement in their health care.
- The educators do not think the presence of the student inhibits the physiotherapist–client relationship.
- The educators feel they are well informed and well supported by the university.
- The educators feel valued for their contribution to student education in the clinics in which they work.

## Key findings from a comparison of the students' and educators' surveys

The notable differences were:

- A clear disparity between what the two groups reported as the timing of their discussions about episodes of client care. Briefing sessions: student mean = 3.2, educators = 4.0; discussion during the consultation: student mean = 3.0, educators = 3.4; and de-briefing sessions: student mean 3.0, educators = 4.1. This indicates the educators' responses showed they believed they discussed client cases at particular intervals with far greater frequency than the students remembered. There appeared to be very little difference in this mismatch of perceptions across the four different types of clinical education settings.
- Students and educators did not agree on the frequency with which these topics about client care were discussed between them. The students' perceptions of the situation were totally different from the educators' perceptions. Comparisons showed that the students, even in their wish-list of the ideal situation, felt in less need of discussion in most sub-items than what the educators' responses showed was the current status.
- The topics discussed **most often** were: the symptomatology; current status of the client; salient features of the case history; strategies for assessment; the findings from diagnosis and assessment and the rationale for them; the technique/intervention selection and the rationale behind them; and the implementation of the intervention.
- The topics discussed **less often** were: the student's experience with similar cases; what the client contributed to the discussion/care plan; the continuum of care and advice given to clients for between visits and the rationale for the same; the criteria to evaluate response to care and the rationale for that criteria.

## **CHAPTER SIX**

### **REPORTING THE FINDINGS FROM PART TWO OF THE STUDY: STAGE ONE**

#### **Introduction**

In the previous chapter the findings and results from Part One of the study were presented. This chapter presents the findings gathered in Part Two: Stage One of the study, which was generated by the observation of actual clinical education events. To do this I used an Observation Audit Tool (OAT) designed specifically for this research. This tool was derived from previous research and scholarly writings about clinical education, discussed in the literature review that was presented in Chapters Two and Three. The OAT was piloted, as previously explained in Chapter Four. To recapitulate, the aim of observing scenarios of clinical education was to capture the nature of vignettes of in-situ, real-time interactions between clients, educators and students.

As the researcher, I anticipated that each observed consultation would take place among the normal day-to-day running of any particular clinic. That is, that no special arrangements would be made for the observations to take place. All the observations and subsequent interviews were undertaken by the researcher. The duration of each observation was in excess of thirty minutes.

In this chapter, along with the presentation of the findings, preliminary comparisons are made with the results of the survey analysis. In this way, this chapter further develops the layers of the overall mosaic of data analysis and interpretation. Greater discussion of the findings and results collected from all the four data collection tools will be presented in Chapter Eight.

The next chapter, Chapter Seven, presents the findings from Part Two: Stage Two, which constitutes the interviews with clients, educators and students. These interviews took place immediately following the observations described in this chapter. The interviews were undertaken with the specific intention of providing exemplars of the participants' views of the preceding clinical and educational events. The chapter concludes with a summary of the key findings from this part of the research.

### **Contextual information about the observations of clinical education**

Twelve observations of clinical education scenarios were undertaken between August 2006 and March 2008. These were comprised of: seven in private practice; four in public hospital outpatients' clinics; and one in a private hospital outpatients' clinic. No invitations to observe clinical education in the community clinics were received.

In ten of the above observations, all aspects of the interactions listed in the OAT were captured. On the other two occasions there were only partial observations made for the following reasons. On one occasion there was only a partial observation of the consultation and this was because the student took the history and examination only and the educator conducted the treatment. On that occasion the report captured the client–student interaction and then the student–educator interaction up until the point that treatment began. The report did not include the client–educator interaction during the treatment.

On the other occasion, in the Private Hospital, the client concerned was not able to verbally participate to any great extent because of the nature of their health concern. Therefore, the client's conversations with the student and educator were not recorded and the client was not interviewed.

In all, there were six clinical educators, all of whom had more than three years of experience in clinical education, fifteen students which constituted a mix of third and fourth year students and twelve conscious and ambulatory clients who all spoke English. On some occasions, the educator had more than one student present at the observed consultation. The student to educator ratio varied from 1:1 in two of the Private Practice Clinics and in one Private Hospital, 2:1 in the Public Hospitals and 4:1 in one of the Private Practices. These findings were in alignment with the overall survey results which found that the most common student to educator ratio in physiotherapy clinical education is either 2:1 or 1:1.

On all of these occasions, except two in Private Practice Clinic 1, the students co-treated with the educator. In those two exceptions, the fourth year students were allowed to practise as semi-autonomous practitioners. These findings are again similar to the survey results which showed that third year students mostly co-treat and fourth year students work as semi-autonomous practitioners. Opportunities to undertake observations in the community setting were unavailable, hence the lack of information from that setting.

## **Describing the observations**

As previously explained in Chapter Four, the Observation Audit Tool (OAT) allowed me to capture the interactions between the three members of the clinical education triad. In particular, I focused on capturing the topics of client, educator and student discussion about the client's actual health care event. This was in alignment with what is expected to be contained in a typical health practitioner–client consultation, which followed the sequence of: Assessment; Plan; Intervention; Evaluation; and Discussion Points. Each of these topics had sub-items. This part of the OAT followed the same order as the students' and educators' survey questions described in the previous chapter in order to make comparisons later. I also recorded, during the observations, the tenor of the feedback between the student and educator and the interactions between everyone involved with particular reference to the focus on the client-centredness of the whole. These findings are explained below.

### The topics of discussion

Tables 30 and 31, on the following pages, illustrate the nature of the topics of the educators' discussion with clients and students about the clients' health concerns during the ten (10) complete observations and the one (1) observation of a part of a consultation (14.3.08 B). The record shows what the clients, educators and students discussed. There was considerable consistency in the topics and sub-items of discussion during the consultations. There were only a few exceptions.

**Table 30. The clinical educators' topics of discussion with the client and student during scenarios of clinical education in Private Practices.**

Location Private Practice	Clinic One	Clinic One	Clinic One	Clinic One	Clinic Two	Clinic Three	Clinic Three
Date of Observation	15.8.06 (A)	15.8.06 (B)	5.09.06 (A)	5.09.06 (B)	14.9.07 (A)	14.3.08 (A)	14.3.08 (B)
Topic discussed and by whom	Ed	Ed	Ed S C	Ed S C	Ed S C	Ed S C	Ed S C
<b>Assessment</b>							
a) The salient features of the case history	✓	✓	✓ ✓ x	✓ ✓ x	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
b) The symptomatology	✓	✓	✓ ✓ x	x ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	x ✓ ✓
c) The current status of the client	✓	✓	✓ ✓ x	✓ ✓ x	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
d) The diagnosis	✓	✓	✓ ✓ x	✓ ✓ x	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ x
e) Strategies for assessment	✓	✓	✓ ✓ ✓	✓ ✓ x	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ x
<b>Planning</b>							
f) The Findings from diagnosis and assessment	✓	✓	✓ ✓ ✓	x ✓ x	✓ ✓ ✓	x x x	✓ ✓ x
g) Technique / intervention selection	✓	✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	x x x	✓ ✓ x
<b>Intervention</b>							
h) Implementation of the intervention	✓	✓	✓ ✓ x	x ✓ ✓	✓ ✓ ✓	x x x	✓ ✓ x
<b>Evaluation</b>							
i) The criteria for determining the response to treatment	✓	✓	✓ ✓ ✓	✓ x ✓	✓ ✓ ✓	✓ x ✓	x x x
j) The continuum of care and advice given to client for between visits	x	x	x ✓ ✓	x ✓ ✓	✓ ✓ ✓	x x x	x x x

**Table 30. continued.**

Location Private Practice	Clinic One	Clinic One	Clinic One	Clinic One	Clinic Two	Clinic Three	Clinic Three
Date of Observation	15.8.06 (A)	15.8.06 (B)	5.09.06 (A)	5.09.06 (B)	14.9.07 (A)	14.3.08 (A)	14.3.08 (B)
Topic discussed and by whom	Ed	Ed	Ed S C	Ed S C	Ed S C	Ed S C	Ed S C
<b>Discussion of Rationale</b>							
k) The rationale for the diagnosis	✓	✓	x x x	x x x	✓ ✓ ✓	✓ ✓ ✓	x x x
l) The rationale for the assessment strategy	✓	✓	✓ ✓	x x x	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ x
m) The rationale for the treatment/ intervention	✓	✓	✓ ✓ ✓	x x x	✓ ✓ ✓	x x x	✓ ✓ x
n) The rationale for the criteria to evaluate response to care	✓	✓	✓ ✓ ✓	✓ ✓	✓ ✓ ✓	x x x	✓ ✓ x
o) The rationale for the continuum of care and advice for client between visits	x	✓	x x x	x x x	✓ ✓ ✓	✓ x ✓	x x x
p) The rationale for the overall treatment plan	✓	✓	✓ ✓ ✓	✓ ✓ x	✓ ✓ ✓	x x x	x x x
q) What the client contributed to the discussion	x	x	x x x	x x x	x x x	x x x	x x x
r) The student's experience with similar cases	x	x	✓ ✓ ✓	x x x	x x x	x x x	x x X

Key: Ed = Clinical Educator, S = Student, C = Client. (A) = first consultation observed on that day; (B) = second consultation observed on that day; ✓ = discussed; x = not discussed; NR = not relevant to the clinical scenario.



**Table 31. The clinical educators' topics of discussion with the client and student during scenarios of clinical education in Public Hospitals.**

Location Public Hospital	Hospital One			Hospital One			Hospital Two			Hospital Two		
<i>Date of Observation</i>	14.9.07 (A)			14.9.07 (B)			22.10.07 (A)			22.10.07 (B)		
<i>Topic discussed and by whom</i>	<i>Ed</i>	<i>S</i>	<i>C</i>	<i>Ed</i>	<i>S</i>	<i>C</i>	<i>Ed</i>	<i>S</i>	<i>C</i>	<i>Ed</i>	<i>S</i>	<i>C</i>
<b>Assessment</b>												
a) The salient features of the case history	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓
b) The symptomatology	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓
c) The current status of the client	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓
d) The diagnosis	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓
e) Strategies for assessment	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Planning</b>												
f) The findings from diagnosis and assessment	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓
g) Technique / intervention selection	✓	✓	x	✓	✓	x	✓	✓	✓	✓	✓	✓
<b>Intervention</b>												
h) Implementation of the intervention	✓	✓	x	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Evaluation</b>												
i) The criteria for determining the response to treatment	NR	NR	NR	NR	NR	NR	✓	✓	✓	x	x	x
j) The continuum of care and advice given to the client for between visits	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Discussion of Rationale</b>												
k) The rationale for the diagnosis	✓	✓	✓	NR	NR	NR	✓	✓		NR	NR	NR
l) The rationale for the assessment strategy	✓	✓	x	✓	✓	x	✓	✓	✓	NR	NR	NR
m) The rationale for the treatment/ intervention	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	
n) The rationale for the criteria to evaluate response to care	NR	NR	NR	✓	✓	x	✓	✓	x	x	x	x
o) The rationale for the continuum of care and advice for clients between visits	NR	NR	NR	✓	✓	✓	x	x	x	x	x	x
p) The rationale for the overall treatment plan	✓	✓	✓	✓	✓	✓	x	x	x	x	x	x
q) What the client contributed to the discussion	✓	✓	x	x	x	x	x	x	x	x	x	x

Key: Ed = Clinical Educator, S = Student, C = Client. (A) = first consultation observed on that day; (B) = second consultation observed on that day; ✓ = discussed; x = not discussed; NR = not relevant to the clinical scenario.

Table 32, below, utilises thematic colouring to compare the student survey data with the observation data regarding the least discussed items between students and educators in the Private Practice setting. Table 33, below, provides the same comparison analysis for the Public Hospital setting. A further comparison between the two tables reveals similar themes, indicated by the colour coding, between the two settings regarding what is often omitted in student–educator discussions. This has implications for content of future professional development activities for physiotherapy clinical educators.

**Table 32. The comparison of survey and observation data from Private Practice regarding the *least* discussed items.**

Order	The observation data	The student survey data
1	What the client contributed to the discussion	The student's experience with similar cases
2	The student's experience with similar cases	What the client contributed to the discussion/care plan
3	The rationale for continuum of care and advice for client between visits	The rationale for the assessment strategy
4	The continuum of care and advice for client between visits	The rationale for the continuum of care and advice given to client for between visits
5	The rationale for the diagnosis	The rationale for the criteria to evaluate response to care
6	The rationale for the intervention given and the overall treatment plan	The criteria for determining the response to care

**Table 33. The comparison of survey and observation data from Public Hospitals regarding the *least* discussed items.**

Order	The observation data	The student survey data
1	What the client contributed to the discussion/care plan	The student's experience with similar cases
2	The students' experiences with similar cases	What the client contributed to the discussion/care plan
3	The overall treatment plan	The rationale for the continuum of care/advice for client between visits
4	The rationale for the continuum of care and advice given to the client for between visits.	The criteria for determining the response to care
5	The rationale for the criteria to evaluate response to care.	Strategies for assessment
6		The rationale for the criteria to evaluate response to care
7		The rationale for the diagnosis
8		Implementation
9		The current status of the client

To summarise this section, the students' survey results of the topics and sub-items within topics they 'frequently' and 'infrequently' discussed with their educators in Private Practices and in Public Hospitals is supported by these observations with only very slight variations. Therefore, these observations provide evidence that the students' survey responses were accurate.

### The nature of the feedback

Analogous to the rationale for capturing the topics of discussion to enable comparisons with the survey results, I also endeavoured to capture the nature of the student and educator feedback. I intended to capture their respective questioning and responding styles. However, when reviewing the recorded responses, I felt these findings were not informative because of the many variables in some of the observed scenarios which affected their interactions. For example, the different learning levels of the students and the perceptions of the educator regarding the student and the clinical situation impacted on their dialogue. Even though the OAT was pilot tested on three occasions, it became apparent after observing a greater number of scenarios that it was more appropriate to take a more global approach to analysis and to record whether there was ongoing dialogue and feedback about the students' actions and thoughts. Table 34, below, shows data collected from all twelve observations. These findings show that in all scenarios, except one, there was ongoing dialogue and the student was given feedback on their thoughts and actions related to the case. The exception was that on the 5th September, 2006, in Scenario B, when the student did not seek, and the educator did not give, feedback on the student's thoughts and actions. On that occasion, there appeared to be a great deal of tension between the student and the educator, which was confirmed in the subsequent interview held with the student.

The results in Table 34 show the educators' and students' dialogue was ongoing. This is in agreement with the students' survey data that, overall, and across the four settings, students had a positive view about the tenor of the feedback they were given by their educators. However, the student survey data identified that in Private Practice the educators provided less feedback about why their response or action was either right or wrong, when compared to the other settings. The findings from the seven observations in Private Practice did not confirm this.

The survey results provided an insight into the difficulties the students had in clinical education. These issues were: students being unsure of their knowledge about certain

conditions; integrating theory into practice; and explaining things to older people and very young people. Therefore, it is vital in any setting that students are given timely and appropriate feedback from their educator.

**Table 34. A global summary of the nature of students' and educators' dialogue.**

Setting	Date of observation	Ongoing student and educator dialogue	Clinical educators gave student feedback on their actions and thoughts
<b>Private Practice</b>			
Clinic 1	15.08.06 A	Yes	Yes
	15.08.06 B	Yes	Yes
Clinic 1	5.09.06 A	Yes	Yes
	5.09.06 B	Yes	No
Clinic 2	14.9.07	Yes	Yes
Clinic 3	14.3.08 A	Yes	Yes
	14.3.08 B	Yes	Yes
<b>Public Hospital</b>			
Hospital 1	14.9.07 A	Yes	Yes
	14.9.07 B	Yes	Yes
Hospital 2	22.10.07 A	Yes	Yes
	22.10.07 B	Yes	Yes
<b>Private Hospital</b>			
Hospital 3	14.3.08	Yes	Yes

#### The client-centred nature of client, educator and student interactions

Two previous aspects of clinical education explored by the OAT were the topics of student and educator discussion about the clients' care and the nature of the feedback that the student receives from the educator. These reflect an exploration of the student-centred nature of the educational exchanges. The final section of the OAT was intended to capture, in-situ, the nature of the client-centredness of the behaviours of the student and educator. Moreover, the intent was to explore the extent of the 'focus on the client as a person' in the interactions between the triad that occurred during the observed scenarios. Specifically, this aspect of the OAT focused on the student and educator inquiry into client's concerns and understanding of the health care event as it took place.

The issues in the OAT that pertained to checking for behaviours consistent with client-centredness were as follows:

1. Whether or not the client has concerns regarding their health problem (apart from the symptoms);
2. The client's understanding of what is occurring or about to occur, in regard to their treatment;
3. The client's expectations of the treatment outcome;
4. Client willingness to comply with the treatment plan;
5. Plans for unexpected outcomes; and
6. Checking the client's comfort level during the consultation.

Table 36 shows the findings from the ten (10) observations. On only one occasion, in Private Practice Clinic Two, was a perfect score recorded, where all aspects of client-centredness were apparent. On five (5) occasions, in both the Private Practice clinics and in Public Hospitals, the majority of the abovementioned aspects of client-centredness were covered. In four (4) scenarios the aspect of client-centredness was not evident to any great extent. Two of these were in Private Practice and two were in a Public Hospital.

Of the four scenarios which did not display client-centredness, the clients' views were not sought to any great extent. On the 15th August, 2006, in Private Practice Clinic One, observations A and B noted a lack of conversation about the clients' concerns, understanding, expectations and level of compliance. On the 14th September, 2007, in Public Hospital One, Scenario A, the client's understanding, expectations and compliance were overlooked in addition to them not being advised about what action to take in the event of unexpected outcomes. During the observation on the 14th September, 2007, in Public Hospital One, Scenario B, the interactions between the three members of the triad were somewhat more client-centred but still lacking in depth. The findings show that during four (4) of the ten (10) educational scenarios, it could be said that proper attention was not being paid to the clients' needs. As the researcher in this study, I believed it was imperative to ascertain if the client felt that they were listened to, irrespective of what the OAT captured, and this was explored further through the interviews that followed and which are reported in the next chapter.

**Table 36. The summary client, educator and student interaction during the consultations observed.**

Setting	Date of Observation	Type of consultation	Q1	Q2	Q3	Q4	Q5	Q6	Total
<b>Private Practice</b>									
Clinic 1	15.08.06 A	Subsequent	x	x	x	x	✓	✓	2
	15.08.06 B	Subsequent	x	x	x	x	x	✓	1
Clinic 1	5.09.06 A	Subsequent	✓	✓	✓	✓	x	✓	5
	5.09.06 B	Subsequent	✓	✓	✓	✓	x	✓	5
Clinic 2	14.9.07	Subsequent	✓	✓	✓	✓	✓	✓	6
	14.3.08 A	Initial	✓	✓	✓	✓	x	✓	5
Clinic 3									
<b>Public Hospital</b>									
Hospital 1	14.9.07 A	Initial	✓	x	x	x	x	✓	2
	14.9.07 B	Initial	x	✓	x	✓	✓	✓	4
Hospital 2	22.10.08 A	Initial	✓	✓	x	✓	✓	✓	5
	22.10.08 B	Initial	✓	✓	✓	✓	x	✓	5

**Key:** ✓ = Yes. X = No

The survey data indicated what value students place on clinical education and having the opportunity to work with real clients. The student survey identified that they appreciate opportunities to: improve their communication, rapport and skill development; gain exposure to individuals with pathology; gain memorable learning experiences; enhance their clinical reasoning and decision making; and develop their sense of responsibility. It can be inferred from those findings that students have the intention of focussing their attention very much on each case and each client as an individual. Yet, the observation data in Table 35 indicated that opportunities to do so, to be client-centred, to connect with the person behind the disease, were overlooked sometimes.

The original intention of using the OAT was to capture the interactions between the three members of the triad as presented above. But after analysis and review of these findings, together with my additional observational notes in my reflective diary, I became aware that I could also categorise retrospectively the models of supervision I had observed from the literature. This was a 'meta' way of using the data from the OAT and the reflective diary. By doing this extra step of analysis, I was able to compare the observed scenarios according to the model of supervision used. These are explained in the next section.

#### The nature of the supervision models

As said above, when I referred back to the literature to consider the type of supervision model I was observing, I recognised three of the models identified by Dent (2005). These were: the Grandstand Model of Supervision where the educator conducted the consultation with the students observing or assisting; the Supervising Model in which the educator allows the student to conduct the consultation without his/her presence there all the time; the Sitting-In Model, whereby the student sits-in with the educator who consults with the client.

However, neither of the aforementioned models by Dent (2005), nor the other four (4) models he presented, fully explained all the models of supervision I observed. In the first instance I noted a variation of Dent's Sitting-In Model where the educator sits-in with the student who conducts the consultation with the client. I named this the Educator *Sitting-In* Model, to mark the difference.

A second model that was not previously identified in the literature was when the student took the case history and the assessment of the client and the educator, then

conducted the treatment. I called this model the Part Consultation Hand-Over Model. These are explained in more depth below and in Chapter Seven. These models, along with the other information, are presented in Table 36 below.

**The Educator Sitting-In Model:** This is a model in which the educator sits in the consultation room during the entire consultation, assisting the student as required. Then, as needs dictate, the student and educator withdraw from the consulting room for a private conversation. While this type of education may be more applicable to the examination of a student's clinical performance, it is also a method reportedly used, by the educators in this study, when they want to develop a close understanding of the student's skill level. This often happened during the initial week of their clinical placement. Additionally, the educator said that this method of supervision can be useful for teaching specific skills. This model of supervision was used in both the Public Hospitals 1 and 2 and the Private Hospital.

**The Part Consultation Hand-Over Model:** This is a model of supervision in which the student undertook the history taking and examination of the client and, away from the consultation room, gave a verbal presentation of the case to the educator. The educator then proceeded to treat the client and finish the consultation while the student repeated the same history taking and physical examination of another client. The educator stated that the Part Consultation Hand-Over Model enables the student to consult with a greater number of clients. Using this strategy, educators say, increases the number of opportunities to teach one or more aspects of a consultation. It helps students to learn to verbally present case findings. This model of supervision was observed in Private Practice Clinic Three, Scenario B.



**Table 37. Summary of the observed models of supervision, the students' ratios and roles.**

Setting	Date of observation	Model of supervision	Ratio of student to educator present during the observation	Student's role in client care	Study year of Student
<b>Private Practice</b>					
Clinic 1	15.08.06 A	Grandstand Model	4:1	Co-treat or observe	(n=1) 3rd and (n=3) 4th Year
	15.08.06 B	Grandstand Model	1:1	Co-treat or observe	(n=1) 4th Year
Clinic 1	5.09.06 A	Supervising Model	1:1	Semi-autonomous practitioner	(n=1) 4th Year
	5.09.06 B	Supervising Model	1:1	Semi-autonomous practitioner	(n=1) 4th Year
Clinic 2	14.9.07	<i>Student</i> Sitting-In Model	1:1	Co treatment	(n=1) 3rd Year
Clinic 3	14.3.08 A	Grandstand Model	1:1	Observer	(n=1) 4th Year
	14.3.08 B	Part-Consultation Hand-Over Model.	1:1	Co-treatment	
<b>Public Hospital</b>					
Hospital 1	14.9.07 A	<i>Educator</i> Sitting-In Model	2:1	Co-treatment	(n=1) 3rd Year
	14.9.07 B	<i>Educator</i> Sitting-In Model	2:1	Co-treatment	(n=1) 3rd Year
Hospital 2	22.10.07 A	<i>Educator</i> Sitting-In Model	2:1	Co-treatment	(n=1) 3rd Year
	22.10.07 B	<i>Educator</i> Sitting-In Model	2:1	Co-treatment	(n=1) 3rd Year
<b>Private Hospital</b>					
Hospital 3	14.3.08	<i>Educator</i> Sitting-In Model	1:1	Co-treatment	(n=1) 4th Year

My diary notes and these findings showed that one of major findings of this further global analysis, presented in Table 35 above, was that there was no apparent relationship between the type of supervising model used, the ratio of the students to educator, the actual role the student took in the consultation, or the year/level of the student. But there was an association between the type of supervision and the setting. Both the Public Hospitals and the Private Hospital used the Educator Sitting-in Model, whereas the Private Practices used a variety of the other four models. There was no association between the model of supervision and the client-centredness of the consultation or the dialogue and feedback between the students and the educator. These findings show that management of the education and healthcare scenario is really dependent on the expertise of the educator. In the next chapter, the findings from the interviews with clinical educators show how a selection of educators involved in this study explained their rationale for the way they organise students' interaction with clients' health care events.

### **Summarising the findings from Part Two: Stage One**

In summarising the findings from Part Two: Stage One of this study, it can be seen that a variety of observations took place in several different types of clinical education settings and in which five (5) different types of clinical supervision models were evident. These were: the Grandstand Model; the Sitting-In-Model; the Supervising Model; the Educator Sitting-In Model; and the Part Consultation Hand-Over Model. Irrespective of the style of supervision of students' work that was followed, each scenario of education and healthcare appeared to have its own particular characteristics. Despite this, the topics and the sub-items of topics mainly discussed between the client, student and educator were relatively consistent across all the scenarios. These findings show a close parallel with the students' survey report.

Further, the findings from the students' survey and the observations, when compared with the educators' survey, showed a degree of misjudgement on the part of the educators'. That is, the educators said that they discussed everything on the list of topics, including their sub-items, 'often' or 'always'. This was not the case. Omission of discussion about the rationale for the clinical decisions made during a consultation may leave the student without a deeper understanding of the educator's thinking. Further, it infers that the educator is not exploring the student's clinical reasoning in sufficient depth, the development of which is not only one of the values students place on clinical education opportunities, but which is also a central aim of clinical education.

The observations of verbal interactions between the student and the educator about the student's thoughts and activities associated with the case indicated that the students were given a good amount of feedback. However, the survey data indicated that, in Private Practice, educators tend to provide less feedback to the students about why their response or action was either right or wrong. However, the findings from the seven (7) observations undertaken using the OAT conflicted with the survey on these aspects of feedback.

With reference to client-centredness, I was looking at the interactions with a view to finding examples of conversations that reflected Stromberg's (2005, p.236) notion of client centred care. Stromberg said:

*...removal of underlying pathologies through the application of science and technology alone will not restore a client's health. That will require connecting with the person behind the disease.*

On reflection, the OAT showed that, as far as the client-centred nature of the education and healthcare scenario was concerned, there is room for improvement in the overall educational strategies. It was recorded whether the student or the educator enquired into the clients' understanding of the health care event their expectations of the treatment outcome, their agreement with the plan, what to do if they were concerned about anything between consultations, how they were feeling and if they were in any pain. The results showed that more than one omission of discussion of the aforementioned topics happened on several occasions. Such omissions raise questions as to the extent of client-centredness of the particular clinical education scenarios in spite of the fact that student survey data showed how much they know they can learn from the exposure to clients in authentic, real time, clinical situations. This finding indicates the full extent of the opportunity that clinical practice provides students to learn client-centredness, or otherwise, and that this is yet to be realised.

Moving forward, Chapter Eight discusses the results and findings from this and the preceding chapter more fully, in relation to the two questions of the study: What features of the clinical education process epitomize student-centred education? What features of the clinical education process epitomize client-centred care?

The next phase of reporting and analysis, which is presented in Chapter Seven, focuses on the findings from Part Two: Stage Two, which involved the interviews with clients, educators and students that took place immediately after the observations reported on in this chapter.

### **Key findings from the observations of clinical education scenarios**

- Five different types of supervision were evident in physiotherapy clinical education. Three of those modes aligned with Dent's (2005) description. They were: the Grandstand, Sitting-In, and Supervising Models. In addition there were two other models evident: The Educator Sitting-In and Part Consultation Hand-Over Models.
- There was no apparent relationship between model of supervision, the student to educator ratio, the role the student took in client-care and the year level of the student. However there was an association between the type of supervision and the setting.
- Feedback offered to students during the observations was ongoing. This conflicted with the survey report that less feedback was generally offered by educators in Private Practice.
- The topics discussed between the student and their educators during the observations were relatively consistent across all the scenarios and showed a parallel with the students' survey report, confirming the students' but not the educators' survey responses.
- The topics discussed the least, as noted in the observations, confirms the inferences from the student survey that clinical educators were not exploring the students' deeper understanding and clinical reasoning in sufficient depth.
- Exploring the client-centred nature of dialogue: the OAT captured client–student–educator dialogue concerning the clients' understanding of the health care event, their expectations of the treatment outcome, their agreement with the plan, their plan of action if they were concerned about anything between consultations, how they were feeling and if they were in any pain. It was found that some of these issues were absent from their verbal exchanges on several occasions. This indicates that the full extent of the opportunity for the educator to role-model client-centred behaviour was not utilized on all occasions.
- There was no association between the model of supervisor and the client-centredness of the consultation or the dialogue and feedback between the student and the educator. Thus the management of the education and health care scenario is dependent on the expertise of the educator.

## **CHAPTER SEVEN**

### **REPORTING THE FINDINGS FROM PART TWO OF THE STUDY: STAGE TWO**

#### **Introduction**

The previous chapter presented the findings from Part Two: Stage One, which were the researcher's observations of actual clinical education events. This chapter presents the findings from the interviews with clients, educators and students involved in those events. This qualitative aspect of the research enabled a deeper exploration than the previous methods of survey and observation had allowed. The inclusion of this phase of examination of dialogue allowed an exploration of clinical education beyond merely translating meaning. This purely qualitative phase was designed to gather the three different perspectives of the same event. Hence, the interview questions were tailored to explore the preceding observations of the education and health-care event, as explained in Chapter Four. While the observations permitted some preliminary understandings of whether contemporary physiotherapy clinical education is both student-centred and client-centred, the interviews allowed the participants involved to voice their opinions. Thus, these interviews added to the robustness of the study because they went beyond the researcher's immediate viewpoint, which then allowed a higher, wider and deeper perspective of clinical education.

Each person in the triad had a different purpose for being involved. The client attends any consultation with a health practitioner because they want their health-care needs met. The student wants to learn how to work in a therapeutic capacity, and the educator strives to balance the needs of both. In essence, the interviews examined the application of the theoretical perspectives of clinical education presented in Chapters Two and Three and allowed a comparison of these to the actual experiences of the key stakeholders in the day to day milieu of clinical work.

As explained in Chapter Four, the purpose of interviewing the client was to ascertain whether or not the event fully met their health care needs and to explore how the client interacted with the student. The interviews were conducted with clients first, then the educators, followed by the students. The purpose of interviewing the educator was to ascertain what they thought were the educational benefits of the particular scenario and if it were client-centred. With the students, the purpose was to explore the benefits of this type of educational scenario, what they understood was the concept of client-centred care and if they regarded the scenario as being reflective of this approach.

Because each interview was tailored to the preceding observation and was subject to the time constraints inherent in a busy clinic, not all interviewees were asked the exact questions as their counterparts in other scenarios. Each student, client and educator interview was, in the first instance, transcribed and this was followed by an analysis of how the students, educators and clients comments provided a critique of events I had observed.

The second step consisted of a comparison of all interviews from clients, then students, then educators from all the different observed scenarios, so that the breadth of themes could be identified. This latter step was governed by the questions initially asked. Where recurrent themes were identified, the third step of analysis involved selecting which quotes best represented a particular theme or highlighted a particular aspect of a theme or new or novel situations. It was during this stage that it became clear there were more types of supervision models being used by physiotherapy clinical educators than that which was explained by Dent (2005).

In the final stage of analysis, which evolved as a necessary step for clarity, quotes from different student, client and educators were categorising according to the clinical education situation. That is, by Dent's (2005) aforementioned supervising models. The different data was then reviewed to select the most exemplary data to highlight the differences and similarities among the samples. By constantly reviewing the data in this way, it was felt that it insured that the findings presented here make a substantial contribution to the developing mosaic of contemporary clinical education practices in physiotherapy. The chapter concludes with a summary of the key findings from this part of the research.

As described in the analysis of the observations of clinical education scenarios in Chapter Six, there were five educational models evident. These were, initially, the Grandstand Model, the Supervising Model, and the Sitting-In Model, as identified by Dent (2005). Additionally, I identified two other models during the observations. The first was a variation of the Sitting-In Model, where traditionally the student sits-in, and instead the educator sits in on a client–student consultation. This I named the Educator *Sitting-In* Model. The second was the Part Consultation Hand-Over Model.

I grouped the interview information under the above models and gave examples of each one, with a commentary from the study participants and from myself as researcher. Each example is introduced by a description of the context derived from

the observations. This included the details of whether or not the dialogue was freely flowing and whether the students received feedback on their thoughts and actions. Also, this included whether or not the client was asked about their understandings, expectations, willingness to comply, the plan for unexpected outcomes and the client's level of comfort. All these reflected the idea of connecting with the person behind the disease, which is defined as client-centredness according to Strumberg (2005).

A description of the context is followed by quotes from the interviewees as they responded to the interviewer's questions. After interpreting the impact of the models of supervision from the triad's perspectives, I re-examined the interview data inductively to see if and how the clinical educators explained their rationale for the overall management of the clinical education they provided to the students. I then repeated this analysis with the student interview data to ascertain if they had stated their educational preferences. In doing this extra step I tried to ascertain if there was a general consensus between the educators' overall approach to education and the students' views of what was effective clinical education. I did this so that comparisons could be made about the client-centredness and student-centredness of the respective educational events and models. At the end of each section I considered the effectiveness of each model of supervision in relation to the notion of client-centred care and student-centred education. In all the scenarios described, the client had been asked to give their informed consent to a student being involved with their health care.

These findings were consistent with the results of the clinical educators' survey, presented in Chapter Five, that educators always asked clients to give their consent when students were involved in their health care.

### **The Grandstand Model of Supervision**

Dent (2005) described the Grandstand Model as one in which the educator conducts the session with a single client. During this session the students are addressed as an audience, with the educator explaining their reasoning throughout the consultation. The educator models what it is he or she thinks the students should do. Students could ask questions of the educator and the client as they would in a lecture. The clients in the present study were made aware that their particular case was being used as an educational opportunity.

In the observations I saw three examples which I interpreted as following the Grandstand Model. Two of the three examples of the Grandstand Model took place on the 15th August, 2006 at Clinic One in Private Practice. Those two episodes followed sequentially and involved the same educator and students. There were two different clients and the subsequent interviews with the educator and the students took place after the second scenario. The third instance took place on the 14th March, 2008 at Clinic Three, which was also a Private Practice. These three scenarios are presented below and each is followed by my reflections on each, which facilitates the comparison among the three.

**Private Practice, Clinic One on the 5th August, 2006: Scenarios A and B.**

On these two occasions there was one educator, one third year student and three fourth year students. There were two clients with similar conditions. On both occasions the educator presented the cases to the students as if he were in a lecture. He described his thoughts and actions as he proceeded with the consultation, pausing to explain key points and to ask students questions. Occasionally, when instructed at specific points, the students palpated the clients and gave him their reports of their findings. The students and the educator compared their findings and had lengthy discussions of similarities and differences. All the students and the educator conversed freely during both observations.

The client-centredness described above was only partially evident. On one occasion the client was asked if they understood what to do in the event of an unexpected outcome. On both the occasions the clients were asked about their level of comfort. On neither occasion were the clients asked about their concerns, understanding, expectations nor their compliance with the treatment plan. Neither client consented to be interviewed.

When the educator was asked what they perceived the benefits to be of those episodes of clinical education, he responded:

*They were good case studies. Each student had a chance to participate and to get involved with the 'hands on' activities. With the exception of one student, all the students were exposed to some new techniques. We had plenty of time to go through the cases in great detail. They were great opportunities for the students to interact.*



The responses from Students 1 and 2 were similar. Student 1 discussed the benefits as follows:

*Getting us into the position that helped the therapist, rather than just us watching him. We got involved and did some of the work. It was an opportunity to ask questions throughout the consultations. When and if we didn't understand what he was doing, we were able to ask. A third student said, I think when he shows you and talks it's interesting. It's interactive which is the biggest thing! It's OK to stand back and watch and not do anything, but you don't learn as well. It's good to feel this and feel that. And the fourth student commented, When diagnosing the pelvis, you have to do it often, and between the four of us, when you get two different outcomes, you have a discussion with each other, "Did you feel this and did you feel if you do this?" The student said: 'It's good for me, to see their point compared to mine'.*

When asked if any aspect of that type of education model was not helpful, Students 1 and 2 agreed, with Student 2 stating:

*It would have been better if it was not a follow-up client because we would have been able to see it from the initial assessment, but we will..., we have seen initials. They then went on to say, At the moment he [the educator] has got new techniques so just watching them and seeing what he's doing, [then] having a think about it later we can ask if we don't understand why [he has done it like this]. But it's all new, we have only been here two days so we are watching at first and then asking questions down the track. His treatment regime is totally different to what we have been taught at university. It's completely different, it's like we are in year one again, scrap everything. The educator is very approachable.*

Student 3 added:

*It's my first prac., so I am not as confident as I could be yet, but the first three weeks have been really good, learning a new technique that we have not been taught at uni, has been a little bit daunting at first, but seems to be working. I have seen some really good results. It is good all the time to have educator to ask something or if I don't get a chance, I can ask the other students. They are a little bit further than me in this program so they know a bit more, so for me it's OK!*

Student 2 said:

*It's good to get client feedback by looking at their facial expression and seeing how the treatment works. We can judge better as opposed to a case scenario. It's the real life. It's good. The students [we generally practise on] feel normal. And in clinic you can feel when it's sore when you have to be gentle. When there are tight muscles you feel differences between people. It's good for developing 'feeling' of the muscles, and joint movement and things. The clinical teacher always says clients came in with back pain, he fixed them up in one treatment and then out the door. You want to trust him, but you also want to see for yourself. You believe it more if you see it. It was good seeing the client being treated, seeing how they react to it. Miracle treatments happen to everyone no matter what you do so...*

The educator at this clinic described client-centred care as, 'focusing on the client'. He said, *Yes, that is what we do. Yes, we show him the research and explain where we are coming from; and that we have had this experience before to reassure the client to explain what is happening and why. On the topic of client-centred care, one of the students said, I think that's really important. That's what it's all about, getting the trust of the client and then working with them; it's not all coming from me.*

**Discussion:** In the two scenarios presented above, even though the educator and student implied they understood what it was to practise client-centred practice, their dialogue during the consultations was not demonstrative of that notion. In these examples it could be reasonably inferred that the clients were participating as 'teaching objects'. Yet, there was no evidence to suggest that either client was uncomfortable with their role or the scenario.

It appears, from their words, that both the educator and the four students agreed the Grandstand Model was a beneficial educative experience. The educator's rationale for the approach included the opportunity to demonstrate new techniques and time for practice and discussion.

### **Private Practice, Clinic Three on the 14th March, 2008: Scenario A.**

On this occasion, there was one educator, only one fourth-year student and one client. Even so, this was still deemed an example of the Grandstand Model because the educator presented the case as he would in a lecture, with the student as the audience. The student–educator dialogue flowed freely and the student was given feedback on their thoughts. The educator conducted the diagnosis and treatment and he and the student conferred on all aspects of the case. However, in this case, there was no palpation of the client by the student. In the dialogue between the client, educator and student, all the elements of client-centred care identified earlier were evident with one exception. The client was not asked about whether she might know what to do in the event of unexpected outcomes.

When asked if the presence of the student affected the consultation in any way, the client said:

*Not at all. Whatever their profession is, they have to learn. It depends on the situation, doesn't it? I'm happy for the student to be present. It's nice working with younger people. I'm happy to help them... Yes, it's been efficient and professional... I'm very impressed.*

When asked about the benefits of this type of education scenario, the educator replied:

*She [the student] wasn't intending to sit in on that [consultation], her other client was late. I think she hasn't seen a lot of biomechanical analysis or orthopaedic prescription because she's been too busy. It's a good idea for her to get an overview [it was an opportunity to do so]. She's a good student. She tends to absorb things and then think about them and come back later. I have spaces booked out for that: to sit down and talk and give her feedback on where I think she's going and where we need to focus.*

The student said, *It was certainly beneficial, especially about orthotics. I like to be a bit more 'hands-on' than that, but this time it was good to watch.* The student revealed a more explicit indication that client-centred care involved shared decision-making. She said, *I interpret that that is when you talk about the treatment plan, exercises, etc and you involve them with discussion about that. Involve them in what they want to do.*

When asked how he generally managed clinical education, the educator indicated awareness that it was an important process of socialization and acclimatisation and

that his organisation of students' work is managed around both the clients' needs and the students' skill.

The educator said:

*We try to get the third or fourth years focused on history-taking and we do a lot of assessment and treatment planning. We concentrate on history-taking because if you get that wrong, then you can really come unstuck. We get them to go and take a history and come back to us. We like them to tell us about it really precisely. If they know they have to recite it, it helps them get it in their head.*

When asked how closely he watches students work with clients, the educator elaborated that:

*When they have got their own clients, I judge that on what I see and what I learn from talking to them. I see what their knowledge base is like and what their experience is like. I judge how well they are performing with those things, how quickly they pick things up. The history of the client and the rapport and whether I think they are getting a good grasp of what's important, particularly in terms of irritability. If they are not really tuned-in to some of the red-flags and the more sinister and sensitive symptoms that people are getting, then I am a bit reluctant to let them go ahead and do things themselves. I just take it a bit at a time.*

Do you base your decision on your understanding of their skill level?

*Yes, I always say to them, "If you are not feeling comfortable, come and get me. If you are not comfortable with a topic, come and talk with me first and if you really want to, I'll come and go through it with you". They need to know they have lots of support that they don't have to work it all out for themselves; that they don't have to know everything before they start coming in and doing things. I just want them to get used to the consultation process. That way, they will get better and better.*

*They pick it up quickly and sometimes they don't. It depends on what experience and skills they have before they come here. We want the clinic*

*atmosphere to be fun for everyone. There are six physios here and we get a huge amount out of having students work here. They are stimulating. We think the best way to do it is to get them involved. We don't just let them stand around: we get them talking to clients.*

I asked what the rules were and he replied, *Confidentiality; introducing yourself to the client before asking them can you sit-in. We go through all the warning issues. We are tough on them with all that stuff.* Clearly, the educator is aiming to match the student's educational needs with the client's health care needs.

When asked what he understood by the meaning of client-centred care he responded, *It is the way most people approach things these days. We take the case history and then we explain the options, what it is and what it involves.* Reinforcing the point that there is a heightened awareness of the need for client satisfaction with the process he said, *We want the client to be happy with them as well. We always said that if you get off on the wrong foot with a client, and if they are not happy for you to be there, you might as well not be there.*

The student explained her preferences for clinical education by saying:

*I don't think there are any hard-and-fast rules in terms of autonomy on placements. I know plenty of students that are just given a client list and off they go. They might report back at the end of the day. At other placements you report back all the time. Here, I report back after 'subjective' and then after 'objective', and we talk about treatment. Then we usually re-assess and see if they have improved with that treatment.*

She then added:

*In private practice I don't know what to do for every case that walks through the door. Where, if it's in hospitals, I might be more confident after about a week or two to take a client-load. In cardiopulmonary clinics there are only a certain amount of treatments you can give. You can count them on two hands. You work off the principles of those treatments. Once you know them, it's all about going back to that. In private practice, everything is different. If it's a case I've seen heaps before, then I might feel fine and confident to do the whole thing.*

The same student highlighted the value placed on situations where the supervisor was able to explain things, to be able to explain what they want from their students. The student said, *It's hard to put into words. They have to be able to give us a good clinic experience.*

**Discussion:** In the above scenario, the elements of client-centredness during the consultation were evident. Further, the client was altruistic toward student participation and generally satisfied with the health care event on that day. Both the educator and the student had a consensual understanding of client-centred care, which they had applied.

Both the educator and student thought the scenario was an example of good clinical education. As part of his overall educational strategy, to match the student's educational needs with client's health care needs, the educator took hold of an opportunity to expose the student to a clinical scenario which she had not previously seen and he proceeded to instruct her in all aspects of the case. He presented the case to her while at the same time addressing the client's needs.

To summarise this discussion of the Grandstand Model, the dialogue between the members of the triad on the third occasion was demonstratively more client-centred than the first two scenarios appeared to be. The Grandstand Model of clinical education on each of these three occasions met the needs of both the third and fourth year students. To do so is aligned with what the literature says is a characteristic of effective clinical educators (Ramani and Leinster, 2008). However, the students' satisfaction was couched with their underlying preference for 'hands-on' experiences.

### **The Supervising Model**

In Dent's (2005) descriptors, the Supervising Model is where a senior student conducts an entire consultation with limited clinical educator supervision. This means the educator only interacts with the student at various times of the consultation. This model is often used when an educator is managing the clinical education of more than one student or when they are managing students' activities as well as their own private clients. This model of supervision is typically adopted when the educator has determined that the student's skill levels match the client's needs.

In this study there were two different examples of this Supervising Model and they both took place in Clinic One, which was a Private Practice. These scenarios involved one educator working with two different fourth-year students. Each had a client at different times during the same day. Each scenario is described in turn.

**Private Practice, Clinic One on the 15th September, 2006: Scenario A.**

On the first occasion the client had acute back pain. The student conducted the consultation and the educator visited the student and the client at irregular intervals. During those occasions the educator–student dialogue flowed freely and the student was given feedback on their thoughts and activities.

With regard to the elements of client-centredness during the consultation, five of the six aspects of client-centred dialogue were evidenced in their conversations. The elements explored were: the client's concerns; their understanding of their health condition; their expectations of the treatment outcome; their ability to comply with advice; and their level of comfort. The client was not advised what to do in the event of unexpected outcomes.

When the client was asked their opinion of being treated by students she said, *They get to learn. I suppose there is at least someone here. The last physiotherapist didn't even bother with me.* When asked what action they would take if they had a feeling that the student did not understand their case, the client said, *I explain, over and over until they get it.* The client's comments reflected their apparent sense of agency and altruism when engaging in student learning events.

When asked in the interview for his opinion of the scenario, the educator said:

*Initially the student wanted to offer treatment solutions without a full in-depth understanding of the case study. So I had to stop and reinforce the point that her ideas were right, but, to bear in mind there needs to be a bit more history taken. The concern for me was that this was a very irritable condition which was quite stirred up and needed to be handled 'just right'. I had to draw this to the student's attention because she was looking at the right sort of things but she was starting to jump to conclusions without the full information. I hadn't had time to brief her on that before we started so when she started to race ahead, I had to stop and pull her back. That was OK. It worked. It stopped her [the student] from being at risk of doing anything to the client that might have had an adverse*

*effect. You have to catch them [students] as they go. I reinforce that they are not allowed to jump in and do things unless they check with me first. We have a standard routine which we start with, and, they can follow that as long as we check the findings. But, if they want to deviate from that at all they must check with me first. And then I ask them "Why"? "What is their rationale"? And if I don't think it's quite right, I'll question them about what other aspects that they may or may not be aware of. [I ask them about] something they might have missed because they haven't asked. And then I'll let them know that they should have checked that. Some things they would not have known because they haven't had 26 years' [professional] experience or life experiences. I've been caught out before and try to stop them making the same mistake. I let them know if it's something they should have picked up in their standard training, or if it's something that they would not be able to pick up without the benefit of more clinical experience. I reinforce it that way and make it a positive learning experience.*

I noted in my memos that although the educator regarded his educational strategies as a safety mechanism for both clients and students, the student regarded the teaching event quite differently. The student said, *It's been fine because I've known what to do with the client so I didn't really need [any] feedback.* When I asked her in the interview if she preferred to work more independently, her response was, *Yep!*

The student went on to say:

*I've treated them [acute lower back pain] on a course. I've treated my family and other clients [with this condition]. Back pain is pretty common, but she [the client] is a more extreme chronic case, so I just went a bit slower. You just have to use your clinical reasoning with different clients. All I needed to ask him [the educator] was if I'm able to do what I know to do, and he allowed me to do it.*

**Discussion:** In the above scenario of the Supervising Model, the client had a great sense of self-agency and had no contention with engaging in student learning activities. The educator's explanation of the scenario reflected his assessment of the student's ability to manage the case and he deemed her to be less thorough than he desired. In contrast to his view, the student judged herself to be very capable of managing the case and indicated that she did not feel that the educator respected her skills. The



student clearly appeared to be client-focused in interactions with the client. It was also clear that the educator was intent on matching and developing what he perceived to be the student's current skills, and what she needed to learn, with the client's needs so that the client received optimal care.

#### **Private Practice, Clinic One on the 15th September 2006: Scenario B.**

The second occasion on the same day involved the same educator, one other student and another client who had been to the clinic many times before. The student consulted with the client with only intermittent visitations by the educator, as expected in the Supervising Model. During those occasions the student–educator dialogue was limited and the student was not given feedback on his thoughts or activities. From the observations, their interactions appeared strained. As the researcher, I was curious to explore this further in the interviews.

Similar to the previous scenario, I observed that the client-centred nature of the actual dialogue between the client and the student was exemplified by conversations which explored five of the six elements of client-centredness. Again, on this occasion the client was not advised what to do in the event of unexpected outcomes. However, I noted that there was no apparent match between the client's responses to the student's questions, and the non-verbal cues that he gave the student during the consultation. I had noted the client gave the student many non-verbal cues that the treatment was uncomfortable, and that he did not agree with the treatment plan. The student totally failed to notice these cues, or ignored them.

After the consultation and during the interview the client had this to say: *I suppose the students are learning something out of it that's the main thing, they have to start somewhere.* When I asked if he thought participating in a student's clinical education might have a negative effect, he responded that, *there could be some negative effects maybe, to the person getting the treatment.*

When I probed further, the client said, *Oh well, maybe you might not feel you are getting the treatment of an experienced physio. That's not to say I didn't benefit from it myself but, yeah...* [He gave me a look which indicated to me that he was furious]. During a subsequent interview, the educator said that on this occasion he had chatted with the client to affirm the student's treatment plan and to discuss the overall case management. It appeared that the educator and client had a long-term association. The educator said that he had conferred with the student the day before about the

consultation and so took a 'hands-off' approach, letting the student manage the consultation entirely.

When I interviewed the student about his management of the consultation, and questioned him about his approach to this particular client he said:

*Basically, I told the client what he needs to know. The educator had talked about the problems for clients like him [with his condition]. The guy [the client] already knows what's going on with him and his condition. He has looked up the information and has come here just to confirm what he found out. He doesn't need to hear it again, so [in my opinion] the educator's conversations didn't benefit much.*

I made a note that the student did not make any mention of the client's obvious dissatisfaction with the treatment. I felt it was not my place to draw this oversight to his attention because my role was to be a non-participant observer. The student gave absolutely no indication that he had done anything but managed the consultation appropriately. His comments at interview indicated that he had no insight into the negative effects of his practice on the client.

When I asked if there was anything he found beneficial about the way the educator had managed the supervision, the student said, in a negative tone, *I've heard it all before [the education]. No, because I knew everything that I had to do with him beforehand, that was all organized. He wanted specific treatment, so I did that for him [the client].* When I probed deeper to explore if the student had any further questions at all he wanted to ask the educator, the student replied:

*You can't really discuss things with this educator much. The way he has been taught is very uni-directional, just one way. [If he thinks] it should work — it will work — even though it doesn't work sometimes. But, [I know] you can't. You can sort of let him [the educator] know your thinking sometimes, but he says, "yeah, yeah", "give it a try, give it a try" [which indicated the educator spoke in a dismissive tone].*

Then the student added, *It's very different from what we learn at university... at university we are not allowed to do anything unless is backed by scientific evidence, whereas in this place we have learnt otherwise. We are instructed to use our clinical reasoning, but the educator just thinks he knows everything.*

**Discussion:** In the above example of the Supervising Model, the client was not satisfied, but did not say so. However, the student did ask the appropriate client-centred questions. The client gave his responses, and they were affirming the student's actions which, in my view, gave the student a very mixed set of messages. The client's comments and facial expressions during the interview did not indicate he felt he had benefited much from working with this particular student. The client's reaction was missed by the student concerned and this indicated a lack of the student's client-centredness. The same lack of client-centredness was evident during the interview.

During this scenario there was a great deal of tension between the educator and the student, who perceived no educational benefits could be attributed to the educator. The educator on the other hand, indicated his focus on the client as he came to the consultation and talked with him on several occasions. Also, the educator was aware of the treatment plan that had been decided. So, it could be said that the educator was both student and client-centred on this occasion.

After I left the clinic premises I made a tape-recorded memo of my thoughts. I was quite alarmed at what I considered to be a student's total lack of interest in a clients' welfare and total lack of respect for the clinical educator. The student seemed to think the educator did not undertake any form of clinical reasoning. This is a similar comment to others I have heard from students in different disciplines. It appeared to me that sometimes students do not fully understand the difference between the cognitive practices of novices and those of experienced persons. Based on my own experiences as a professional in clinical practice, I understood that when a person has been a clinician for a long period of time, they notice things about clients very quickly and they sum-up situations and weigh findings from diagnosis swiftly. The situation I had observed raised my awareness that when students witness such fast cognitive processing, it appears to them that the experienced clinician is not 'thinking' at all. It can appear to students that the clinician is guessing. I made a note in my diary that this is something that academics ought to discuss more with their students, so that they might have greater respect for their clinical educators.

In summarising the two different accounts of the Supervising Model of education, individual clients have their individual perspectives: one was content and, though the other said he was, his non-verbal language clearly indicated otherwise. With regard to these two separate scenarios, the clinical educator indicated he felt his approach to

education was beneficial. He appeared oblivious to the two students' intense dissatisfaction.

## **The Student Sitting-In Model**

### **Private Practice, Clinic Two on the 14th September, 2007.**

Chapter Three introduced Dent's (2005) Sitting-In Model, where the student sits-in with the clinician. This model is different from the Grandstand Model, as there is continuous and cumulative interaction between all parties, although the clinician leads the consultation. This type of physiotherapy clinical education model was observed on just one occasion: in the Private Practice setting there was one client, one educator and one student. The client, educator and student dialogue was free flowing throughout the event and the educator gave the student feedback on her thoughts and activities during the long consultation. This was the only clinical scenario during which I observed that the client, educator and student dialogue reflected all the six aspects of client-centredness as described earlier.

After the event I asked the client if she was satisfied with the clinical consultation and with the students' involvement. She said:

*It's very much an improvement because you get three people discussing an issue, the educator, the student and me. So between the three of us if we can't work something out then there is something really wrong. It's really good for me, because the student sees it differently, they are not doing it all the time like the physiotherapist is. They come up with critical questions for the educator. I have benefited from that immensely.*

When asked if she had been advised what action to take if she was concerned with her progress during consultation, and if her views had been taken into account, the client replied:

*Absolutely. The physiotherapist is available by phone. I've had that issue when I have been away and the physiotherapist has given me instructions over the phone and I have been able to fix the problem with her instructions.*

So your views are taken into account with the whole plan? *Yes, very much*, she replied.

When asked if she would like to record any comments about being involved in the student's learning events the client said:

*Yes, I think it's fabulous. I think because of my condition, which is unusual, they won't come across that in many places. For them to have the knowledge base to work from, it will make them think again when they are in a similar situation. It will make them think about what they are doing again and remember me and remember that it worked. So I think it's invaluable for them.*

I asked what she would do if she felt the student did not fully understand her case, and the client replied:

*I have actually had an issue with that. It wasn't anything major but I did discuss with the clinic educator. The educator corrected it and talked with the student and then the student and I talked about it as well.*

When asked why the client gave the student ongoing feedback throughout the consultation, she replied:

*Yes I do... that's good isn't it. They are here to learn. Being a nurse myself, I appreciate that it is important for them. But also, because it is my body, it's important that I tell them that what they do is actually working.*

This client's views indicated her very strong sense of agency and selflessness towards student education. The views also reflected what students, in the survey, said they valued about clinical education. That was, they appreciated the exposure to individuals with pathology and having memorable learning experiences.

When asked why she conducted the education and health scenario in the manner of the Student Sitting-In Model, the educator indicated a great awareness of the need to be both student- and client-centred. She replied:

*I think it's important to make sure the client is getting quality care and each level of responsibility that is being handed over to the students must ensure that the client is still getting safe care and what they need to be getting. The student's responsibility for performing that is actually gradually implemented rather than*

*in a rush "here is a client — go and deal with it". This way of supervising is based on two points of view:*

*Firstly, for the client, it insures the treatment is safely done - you can check out the student's skills as they are performing them on the client. In that way you are making sure the client gets the treatment they need without harm.*

*Secondly, for the student, it also gives them confidence, it lets the students know the areas of their work I think are satisfactory, and the areas I want to help them develop.*

The educator continued:

*For this student it is only her first week so she is still in the handing-over phase, that way it gets that balance of ensuring the quality of care and the student knows what they are doing and feels comfortable with what they are doing. She knows the strategy, when to implement and when not to implement, when to upgrade and when not to upgrade as well.*

I asked the physiotherapy educator if she thought having a student in clinic impacted on her professional reputation in the community, to which she replied:

*I am not sure. I haven't actually looked at that. I am not sure if it makes any difference to the community whether I have any students or not. We do follow up surveys on our clients to see if they are OK with that and we have only had a couple of back that they would have preferred me to have done more of the 'hands-on'. But apart from that, most clients are delighted to have students working on them. They really enjoy being part of that learning process. That's the feedback that we get.*

I also asked if having a student present interfered with the client–practitioner relationship and she said:

*No. No I don't think so. I have had some interesting scenarios in the past when clients have actually disclosed some quite significant social issues, domestic violence issues in particular, and often we get a lot of clients who have emotional release. My strategy there is usually that I take over more of the*

*conversation and just allow the student to observe and we usually reflect later on.*

Indicating a total acceptance for the responsibility for the student actions, she added:

*I am totally responsible for what happens to the client even with the students working with them and that that is my duty of care to the client, it's my responsibility, so part of that impacts on the level of supervision.*

With regard to being client-centred during clinical education events, the educator said:

*It's ultimately what happens with the client that is important, so we need to be looking at the whole of the client, not just a part of them. It is important when students are involved that clients realize that they are not just guinea pigs. I ensure that they are actually getting the care that they really need. Also, as a learning experience, as the student just said: until they work on a client they don't just know what they have been taught. It consolidates their learning. It is important for students to have that 'hands-on' with people, real clients, rather than a healthy body. I ensure that the students just do the basics and I am there to make sure everything is rounded off well and that the client has got everything they need.*

The student's thoughts about the education and health care event were as follows. The student said:

*I thought it was really good, because the clinical educator let me decide what I wanted to do and then I bounced ideas off her. Then the educator would give me guidance as to if that was right or wrong. The educator would suggest things and I found her easy to ask questions, she was approachable as well when I was unsure with some of those neurological tests. She could give me some guidance as to what I was doing right or wrong and how she would approach the situation. The educator let me think about it for a little bit, she asked what I thought was the answer before she jumped in.*

I also asked the student, was there anything you would have liked to have discussed with the client, and her reply was:

*Um, that's a good question. I might have discussed a little bit more about the history because I am not as familiar with that client. I briefly went through the*

*notes but I might have clarified a few things if it was just me treating that client. Because the educator knew the client and the history the educator knew how to treat her. If it had been my client I would have asked more about...*

When asked what she understood by the term 'client-centred care' the student replied:

*Just to ask the client how they want their care done and be in communication with the client about the decisions that you are going to make together, rather than saying "I think this is the right thing to do".*

**Discussion:** This physiotherapy educator's response reflects what the clinical educators' survey analysis revealed: that the greatest majority of the respondents to the survey do not find that working with students was onerous. Further, they do not feel uncomfortable asking clients to participate in students' educational activities and they do not think the presence of the student inhibited the practitioner–client relationship.

In this example of a Sitting-In Model, it was noticeable that the client regarded the event as being greatly beneficial to her and she was delighted to help the student learn. During the scenario it was evident that the educator and student were exploring each other's practices throughout the consultation. That is, the educator explored the student's strengths and weaknesses and the student explored the educator's methods of managing the student's clinical education in relation to the particular client. It appears from the voices of the three participants that this scenario reflected an exemplary balance of client-centred and student-centred clinical education.

In Chapter Six I put forward two other models of supervision that were not found in the literature but were observed in practice. I will now discuss these approaches here.

### **The Part Consultation Hand-over Model**

#### **Private Practice, Clinic Three on the 14th March, 2008: Scenario B.**

The Part Consultation Hand-Over Model was one of the two additional models of organising students' work with clients that were noticed during the observation undertaken in this study. In this scenario, the student had consulted with the client on a previous occasion and so the educator allowed the senior student to take responsibility for re-interviewing and re-examining the client to identify what progress had been made. My memos show that after doing so the student then presented the case,



including her actions, thoughts and recommendations, to the educator who then, due to time restrictions, continued to treat the client while the student consulted with another client. The educator did not interrupt the student while she was working with the client. His dialogue with her occurred during her presentation of the case, which was away from the client's hearing. During that presentation the educator–student dialogue flowed freely and the student was given feedback on her thoughts and activities. The client–student dialogue, during the consultation, reflected five of the six elements of a client-centred health professional and client interaction. The only element that was overlooked pertained to the client's knowledge of what to do if an unexpected event occurred with his condition, during consultations.

After the consultation with the student only, the client had this to say, *Yes, I met her the other day.* I asked if he had helped her with her consultation today and he replied, *Today, I was not sure that she knew which way to ask questions, so I led her a bit.* I also asked if he thought having a student involved in his care was beneficial and he responded:

*It makes it longer. She [the student] is able to explain stuff to me that I don't know. It's reassuring when the student and the practitioner agree on something. They validate each other. I heard them talking outside, and it was really thorough. It sounded really good.*

The clinical educator thought the event was educationally beneficial. He said:

*She can see for herself how the signs and symptoms have changed, compared to last time. It was another opportune teaching moment that she wasn't scheduled to have. It fills out the gaps in her day because we don't want to load her up too much, especially if it's an interesting case. Then she will have some knowledge of cases she might not see often. That way she sees a wider range of conditions.*

The student agreed. She said:

*It's very good because I get to tell him what I found out in the history. We get to talk about it before we treat the client. We talk about what to do for treatment: what you think that will do. It would possibly be better if I had treated the client, but...*

**Discussion:** The scenario above depicts the educator's ability to maximise the potential for student learning even when the time was limited. The client on this occasion had acted with complete self-interest and appeared happy with the student's involvement in his health care. Given that clinical practice does not always revolve around a 'new' case, it is vital that students also learn how to conduct subsequent consultations. This scenario reflected such an event. The voices of the members of the clinical triad all allude to their satisfaction. Therefore, this Part Consultation Hand-Over Model was, in this study, regarded as client-centred and educationally effective as far as the educator and student were concerned and the client was a willing and satisfied participant.

### **The Educator Sitting-In Model**

In contrast to the Student Sitting-In Model described earlier, a model in which the educator consults with a client, in this study I observed on a number of occasions the educator sitting-in on the student's consultation with a client. In all there were five scenarios that I assigned to this category and they were all observations in Public Hospitals One and Two and Private Hospital One. The two observations that took place in Public Hospitals One and Two each involved two different clinical educators working with four students, two in each clinic. Although each scenario was observed, and the participants were interviewed, on analysis there was limited noticeable difference between scenarios A and B in the same Public Hospital Clinics. Therefore, I have chosen to describe only one scenario from each of the Public Hospitals together with the only scenario from a Private Hospital.

#### **Public Hospital One on the 14th September, 2007: Scenario A.**

In Public Hospital One, an observation of clinical education took place on the 14th September, 2007. Those involved in the education and health care event were one educator and one third-year student who were working with a client who had a chronic condition. My notes from the observation recorded that it was the first time the student had met the client. The educator was present in the consultation room the entire time as a support to the student, which is indicative of the Educator Sitting-In Model. The educator assisted the student when he felt it necessary. Dialogue between the student and educator flowed freely and the student was given feedback on his thoughts and activities. Occasionally, the student and the educator removed themselves from the consulting room to discuss the case. The student was given feedback on their thoughts and activities. On this occasion, there was an oversight in client-centred interactions.

The client's understanding of the case, their expectations, their ability to comply with advice and the plan for unexpected outcomes were not mentioned. The only element of client-centredness apparent in the dialogue between the student, educator and the client was that the client was asked her concerns and if she was in pain during various stages of the consultation. Even so, the client seemed generally happy, and reported:

*I suppose he did his best, you know, he doesn't feel the pain does he? And it's very hard to get it across what's going on...I thought he understood, I thought he was quite good, but unless you have got it, you just don't understand'...he asked a lot of questions and I did my best.*

When asked to discuss the benefits of this type of education, and indicating a high degree of student-centredness, the educator said during the interview with him:

*I thought it was appropriate for his year level, and we have also just had a previous experience with that particular student. I know that he does require a little more guidance, even between the objectives and the physical examination. We have found that he does need to verbalize his thoughts and pre plan the physical examination. At this stage, he hasn't developed the competence of being able to roll from the subjective to the physical examination. So it's more of a safety thing. So in that sense, the time-points that we came out [away from the hearing of the client] and had a chat about the client were probably a good thing. I think using open-ended questions allowed him [the student] to come up with a hypothesis on his own, without me sort-of leading him one way or the other, just a little bit of guidance to be concise. I do like to, where possible, to find an opportunity to have a bit of a sit-down afterwards. I have found in the past that the timeliness of giving feedback tends to be important. When we do book clients in, we tend to book longer than is required just for that opportunity.*

The student seemed aware that he was receiving a good education. When the student was asked if they thought the scenario was a helpful learning experience he said:

*Yes, it was. It's been two weeks since we started and I felt I am getting a hang of some stuff and am able to show that. When we were going through the possible causes, I felt that I did that alright and I answered most of his questions fairly well. I think that my knowledge of pathology is getting there.*

*Even the things that I didn't do so well, I realised as I was doing them. When I talked with the educator we agreed, he pointed that I had the same problems.*

When asked if the student thought this type of education was a safety mechanism he said:

*Yes, he can pick up things I miss. Usually I am on the right track, but there are little things to check and cancel out. With his experience, he can remember that I do those things and that is important because I don't want to send anyone home with the wrong diagnosis. So, I think it's helpful because the subjective and objective information from assessment you get, can be quite different and it's good to plan the objective assessment after the subjective, as it helps you plan that. In this case, the client's problem was quite irritable so you want to minimize the assessment. Having the conversation [with the educator] helped me to know what we needed to do today to minimise her [the clients'] discomfort: getting the right information without overdoing it.*

When asked about his understanding of what it means to be client-centred the educator said:

*Treating the client more holistically so that we are involved with the client more. So the client becomes more involved, more of an active participant in the treatment. They are not just a recipient of treatment. They are not just coming to us with a problem and saying 'you do something to fix this' and we treat them. It is about making sure the client is informed about what we think is going on and allowing them to decide, based on the risks and benefits of those approaches and where they would like to go with it.*

The student thought:

*We are in the health service. We aim to treat clients and make sure the client gets as much benefit as they can from what services we provide. Some clients may have an issue being treated by a student but they understand that we have got to learn somewhere. Having the clinical educator there I don't feel worried then. We are not putting anyone at risk of not receiving the best care.*

With regard to the student's perception of how the learning scenario affected the client, the student remarked:

*I don't mind it myself. But I sometimes worry that the client may have an issue with that because it often takes a while. When we return [from our discussion] they are usually sitting there quite happy. I haven't had someone complain. For me it's good because I know I am not missing things, I'm not going to kill anyone basically.*

**Discussion:** In this scenario, even though a number of the elements of client-centred dialogue were omitted during the consultation, the client was content to allow the student to learn through participation in her health care and she tried to provide him with the correct information so he could learn. The educator regarded this model of student–educator dialogue and interaction to be beneficial to develop the student's skills in a particular area, skills that had earlier been identified as being unsatisfactory for the student's level. The student was aware of the reason for this strategy and seemed happy with it. The educator and the student had different views of what it meant to be client-centred. The educator said it was meeting the client's needs. The student, however, indicated he thought he was being client-centred when he said during the interview that the extra time he spent outside the consultation room, talking with the educator, might have had a negative effect on the client's experience at the clinic.

#### **Public Hospital Two on the 22nd October, 2007: Scenario A.**

Showing some similarities with the scenario described above, in Public Hospital Two the student's underperformance in particular areas had previously been identified and the educator and student had agreed on the current strategy to help him (the student) to improve. During this scenario the student was consulting with a client he had not met before and, again, the educator was present in the consultation room the entire time and neither he nor the student left the consulting room at any time. The educator instructed the student and probed their knowledge at various intervals. Dialogue between the student and educator was free flowing and the student was given feedback on his thoughts and activities.

With the exception of not being asked their expectations of the treatment, the client on this occasion was asked by both the student and the educator about their concerns, their understanding and comfort, which indicated a high degree of client-centredness

on behalf of the educator and student. That is, five of the six elements of client-centred dialogue were evident.

When asked why he participated in clinical education activities, the client replied, *Couldn't see any harm in it really when the clinical educator said the students were studying. I just thought, well, I'll give them a hand.* Indicating a caveat on his participation in student learning activities, when asked if there were any conditions that he wouldn't let the student become involved in within his care the client replied, *Oh, personal stuff.* The client did not think having the student present altered the consultation much. He said, when asked this question, *Not really. The educator was advising him.* When asked if he felt he could make comments on the student's treatment he said:

*Ah. There might have been one or two places there that I didn't say anything. I thought it might have been myself, I did mention that afterwards. No, it was OK. He's learning and he'll find out what's wrong.*

The educator explained the approach he took to the scenario and the educational benefits:

*That's not the way we do it all of the time because most of the time I am not present 100% of the consultation. Usually I come and go because there are two students and I also have my own clients as well. I set it up today because you were coming. But I do spend time during the first weeks and occasionally on other weeks a 100% of the time like I did today. He [the student] is confused and I am not sure I am totally familiar with what is going on there, either. It will probably take us two or three sessions to sort that out. I am not sure I was able to help the student through the confusion completely, but I hope that over the next few sessions we will sort that out.*

When asked about the perceived disadvantages of this strategy, the educator said:

*I think this is more stressful to the student and to myself. I quite like the idea of just coming and seeing a bit and then going and seeing the other student and having a look at different stages of how they assess and treat. I think they relax a bit more if I am not here and I think I am just coming and going. It still gives me an idea of how they are progressing and I get to see them at different stages of the treatment and assessment with different clients.*

When asked what he does if the student has difficulty, the educator replied:

*I certainly hope he would have come and asked me. I certainly encourage him to do that, to say, "I am a bit confused can you talk to us", and then I would come in with him and the client so we sort it out one way or the other.*

I asked the educator to describe his overall approach to managing clinical education and he explained:

*I come and go, because there are two of them and I have my own clients as well. But I do spend time during the first weeks and, occasionally, on other weeks, one hundred percent of the time with the client like that. It isn't a regular thing: middle and final assessment, and just prior to that assessment. I think this is more stressful to the student than to myself. I quite like the idea of just coming and seeing a bit, and then going and seeing the other student and having a look at different stages of how they assess and treat. I think they relax a bit more if I am not here all the time and they think I am just coming and going, it still gives me an idea of how they are progressing and I get to see them at different stages of the treatment and assessment with different clients.*

And when asked about whether or not the style of supervision was managed on a case by case basis he said:

*I do look at what sort of clients they have got. I do choose their clients for them so I know the sort of clients that they are going to be seeing. There are some sorts of clients that I would not give a student at this point, some that I don't think are appropriate.*

I asked the educator if managed clinical education events around the clients particular cases and he said:

*It would be random, depending on time and how they are going. It depends on when I do go in, what seems to be happening and how comfortable things are. If they come and see me if they are having a problem, then I will spend as much time as seems appropriate to get them through whatever the difficulty is. If they are not approaching me and I do come in, then it may be just 5–10 minutes.*

*If they do approach me and they do have a problem, I might spend 20–30 minutes with them. It depends on how that situation starts.*

The student viewed the educational scenario as being of benefit to him. The student said:

*I am generally confused about that type of presentation, so the educator was useful for that... I will catch him [the educator] later. I am not sure how irritable the client was. We learn to treat one thing at Uni and today we treated two things and I am not sure which one is effective. It just confused me a little bit so I just want to clarify it a bit more.*

The student said client-centred care was, *'making sure the treatment you give is ok with them and they are happy with it'*.

**Discussion:** This second scenario of the Educator Sitting-In Model provides a clear indication that the rationale for the educational strategy is derived from the educator's awareness of the student's learning needs and the client's health care needs. The elements of a client-centred dialogue were evident and the client was a willing and cooperative participant in the educational event. The client indicated that he had edited his feedback to the student. That is, he had a perception that telling the student something was sore might have a negative effect on the student's learning, so he did not mention some things to him at the time. Yet the student was aware that the client's symptoms might be heightened from the events of the consultation. The client was aware that he had altered the feedback he gave the student. This raised an important point in clinical education and was highlighted during the second example of the Supervising Model. That is, unless a client gives the student authentic feedback, the student is likely to develop a false sense of how their activities actually affect clients. The students may develop a false sense of their skills and abilities. If the aim of clinical education is to expose students to real clients who have genuine health concerns so they can learn to interact with and assist them within their therapeutic paradigm, then it is vital that clients behave authentically. The student survey data demonstrated students' values regarding clinical education, and that included the opportunity to learn how to adapt practices to individual client's needs and circumstances. Thus, less than accurate feedback from the client to the student during a consultation can negatively affect the student's learning experience.



The client in this scenario indicated he would not consult with students on some more personal matters. This indicated the boundaries of his consent; whether or not he was advised previously that he was entitled to place a caveat on his participation, or that consent was not expected to be enduring, is unknown. Regardless, the client acted out of altruism and his own sense of agency.

### **Private Hospital Three on the 14<sup>th</sup> March, 2008.**

My notes from observation show that an unexpected event happened on this occasion during the only observation in a Private Hospital. One educator, one student and one client were involved. However, there was only a very short interview with this client because their illness did not allow it. The client remarked that she did not know the physiotherapist was a student. This, the client admitted, might have escaped her attention because of her health. She did indicate surprise that he was a student because she said he was so professional and competent. When asked if she gave him feedback during the consultation she said she did when it was asked for. It was very evident she was comfortable with the whole management of her welfare. The clinical educator on that occasion said she thought the client was a good 'learning project' for the student because she had such good health issues for the student to learn from and because the client was so proactive in her consultations.

When questioned about the rationale for her supervision and teaching style, the educator said she sometimes observes students' work from a distance and sometimes is more interactive, depending on the case. The educator said that her strategy was driven by her desire to assist the student to look professional in front of the client so that the client will trust them. Another educational driver was the need to make sure the client was safe. In this instance the client had been admitted to the hospital. She had treatment each morning and afternoon so the educator instigated morning briefing sessions with the student and a review of client progress every two days.

The clinical educator said:

*The teaching varies. I often assist from the background, especially when we have a plan for the session. It's a lot for a student 'putting it all together. I discuss the plan with the student away from the client and I am in and out as needs be. If I have to say anything I address the student and I do not give feedback to the client. In that way the client still thinks the student is in total control. I like to assist from the background. If there is an issue I get the client to start on some activity and then I take the student around the corner and we*

*have a discussion. I do that so that the student looks professional and competent in front of the client.*

The student commented:

*It's good here, we have enough independent practice without the educator being constantly there. But we still have the educator available to talk to. We have briefing sessions to discuss treatment plans. We have briefing sessions most of the time and de-briefing sessions every other day or if the treatment changes. They make sure we are safe in treatment and they check on our progress.*

The student said that he liked the model of supervision at this clinical practicum and felt that it allowed the right amount of independence and the educator was always available when needed. The student felt that because the educator was in close association with the case there was a second pair of eyes and that allowed him to not repeat questions to the client that had already been asked. The student thought the educator's perspective put his own view of the case in context, without burdening the client unnecessarily.

**Discussion:** The student was very aware of the non-verbal cues the client gave him during the consultation and adapted the processes accordingly. Both the student and the educator shared a common understanding of client-centred care, which was similar to the statements made during the other student and educator interviews in other clinics.

Both the educator and student felt they had addressed the client's expectations and then tried to lead the client further if they thought the client could achieve more. As a researcher and also a clinician I found this a particularly important and realistic comment because clients do not necessarily have the full view of the extent of their potential or how much can be done for them. Clients do need the health professional to direct and guide them to a point; the health professionals know what is possible. To summarise, the Educator Sitting-In Model of supervising in clinical education appears to be effective when the student has areas of particular learning needs that have been identified at an earlier stage. This gives a strong indication of the student-centredness of the events. It also appears the clients are highly satisfied with this type of activity and on both occasions the student was very aware of the generosity the

client displayed in participating in their learning activities. Students' showed awareness of the extra burden it might place on clients, hence their actions can be considered client-centred.

## **Summarising Chapter Seven**

This chapter has presented data from observations, memos and interviews and has described these findings under different models of supervision, some developed by Dent (2005), as well as some modified by the researcher. The education sessions were observed in-situ and represented real-time clinical education. The context and elements of each scenario varied widely. The clients involved in the scenarios presented were altruistic towards the students' learning and demonstrated a strong sense of agency, in that they told the student what they thought they needed to know. However, it was evident on two occasions that the clients did not give accurate feedback. This is potentially problematic, because if a large percentage of clients err on the side of giving accurate feedback the students' learning might be substantially hindered. Students may develop a false sense of their clinical skills and abilities. This therefore needs to form part of the critical reflection phase of any education event. According to the educators and students in several scenarios, The Grandstand Model of education seems an effective clinical education strategy. There can be a tendency for clients to feel like a teaching object so the educators and students ought to be more vigilant in attending to the needs of clients during such scenarios. Students value seeing how the educators manage clinical situations, but overall, they do prefer to have more hands-on experiences.

The Supervising Model of clinical education is effective in giving the students more autonomy, which is particularly important in the later stages of the program. In the examples from this study, on one occasion, the educator and the student had opposite views of the student's ability to manage the case, which caused the student some frustration. In a second example, the student had no respect for the educator's advice, yet the educator, through vicarious liability, was responsible for the student's actions while working in his particular clinic. This was the source of some tension. Perhaps what were captured in this study were examples of one educator's unwillingness to allow the students to think through a consultation, to engage in critical reflection processes.

In the example of the Student Sitting-In Model, the client was very proactive in her participation of the education of the student involved. This was an opportunity for the student to experience the educator's clinical methods first hand and in doing so the scenario was thought to be extremely beneficial to all involved.

Similarly in the example of the Part Consultation Hand-over Model, the client acted in a way that ensured he received appropriate care and he balanced that by trying to educate the students as he did so. This was an opportunity for a less experienced student practitioner to take the lead role in part of a consultation and hand the responsibility for the remainder of the process to her senior team leader. The scenario met the satisfaction criteria of each member of the clinical triad.

In the examples of the Educator Sitting-In Model of Supervision, it was apparent that this strategy was adopted as a means of problem solving, to enhance the development of students' skills in a particular area, skills that had been previously identified as needing improvement. Both the educators and the students were clearly satisfied that this strategy had achieved those goals on the two occasions described. On both of those occasions the clients felt very much cared for, in the professional sense. It seems clear that educators and students have a consensual understanding of the meaning of client-centred care, which in turn appears to be in harmony with the descriptions in the literature (Haidet et al, 2006; McCarthy, 2006). They each thought that the observed episodes of clinical education and care were representative of the notion of client-centredness. In whatever way they expressed their understanding, in their minds, they were practising those principles as they engaged in educational events. However, the data from the Observation Audit Tool shows that particular aspects of the dialogue that represent client-centredness could be improved during clinical education in general. Tables 2 and 3 express aspects of optimal client-centred behaviour as outline by Kurth et al. (1997) and Ramani et al. (2003).

It seems abundantly clear that this cohort of physiotherapy educators take into consideration all the variable aspects of the dynamic world of clinical education, especially their therapeutic and legal responsibilities while, at the same time, they indicate a keen awareness of ensuring the student receives the maximum learning experience they can provide. The educators' sense of the ethics and legal implications, together with their altruism toward the provision of education and their views of what constitutes a good educational experience, appear to drive any clinical education strategy they may adopt.

It is undeniable that these cohorts of physiotherapy students have had sufficient experience to enable them to comment on the effectiveness of different clinical education strategies. They preferred to be involved in 'hands-on' work, in decision making about clients' care and, also, about the educational strategies. Clearly, from the interviews with educators about their rationale for client–student–educator interaction and the students' comments about what found to be effective, it is apparent that what is most important to students is the style of education that is used. These educational opportunities to practice decision-making maximise the effectiveness of their clinical education opportunities. This is particularly important in what faculty have described from their interviews. In clinical education workshops it is therefore important to expose the educators to different models of supervision.

In Chapters Eight and Nine, I will assess the various data as a whole against the questions posed in this research: What features of the clinical education process epitomize student-centred education? What features of the clinical education process epitomize client-centred care? It is important to make the summative appraisal of previous study findings from the literature.

### **Key findings from the interviews**

- Rather than adhere to a fixed style of management, physiotherapy clinical educators match their style of supervision and teaching strategies to their perception of the students' learning needs and the clients' health care needs, as well as their therapeutic and legal responsibilities.
- Students and educators share a universal understanding of the meaning of client-centred clinical practices.
- On a few occasions, even though educators and students believed they were acting in a client-centred manner, to the objective eye there was no clear evidence to support their belief.
- Clients have a positive attitude toward participation in physiotherapy clinical education events and they do so with a balanced sense of altruism and self-centeredness.
- Clients are, in the main, happy that the clinical education events meet their expectations and their health care needs.
- Clients appear to be satisfied with the level of supervision of students work.
- On some occasions clients edit the feedback they offer students with the idea that their genuine thoughts might negatively affect the students' learning. If this is not checked in the normal course of management of clinical education, it is possible that students might develop a false sense of how their activities actually affect clients. The student may develop a false sense of their skills and abilities.

## **CHAPTER EIGHT**

### **DISCUSSING CONTEMPORARY PHYSIOTHERAPY CLINICAL EDUCATION: STUDENT-CENTRED EDUCATION**

#### **Introduction**

The previous three chapters, Five, Six and Seven, presented the results, findings and emerging discussions of the data analysis of Part One and Part Two of this research. This chapter and the next contribute more substantially to the developing mosaic by discussing the outcomes of this study, focusing on the two research questions:

1. What features of the clinical education process epitomize student-centred education?
2. What features of the clinical education process epitomize client-centred care?

As these two questions are so distinct, it was decided to present these discussions in two chapters. This chapter focuses on the discussion of the application of student-centred education in physiotherapy clinical education. The outcomes of the research and the emergence of new insights, understanding and knowledge are presented at the end of the chapter.

#### **Discussing the application of student-centred education in contemporary physiotherapy clinical education**

Chapter Four described how the data were assembled and analysed, to illuminate the nature of clinical educational events. To recapitulate, data were collected from clients, educators and students via surveys, observations and interviews, as presented in Figure 7. The findings identified and extended our understanding of contemporary clinical education in physiotherapy, because different and deeper collection methods were used. Furthermore, some collection methods were retrospective, whilst others were in-situ, in 'real' time. From these results and findings, contemporary physiotherapy clinical education strategies were critiqued against what the research literature claims to be best practice. Also, this research aimed to determine if the strategies used met the students' perceptions of their learning needs. Given that experiential learning is inherently student-focused, my aim was to determine if the educators had a clear

intention of tailoring those educational activities to individual students' learning needs and if students found that what the educators currently do was of benefit to them. It is reasonable to assume that the clinical educators' knowledge of educational theories and of the university curriculum, along with their general outlook and experience and their concept of what the student needs to learn, underpins the way they manage their clinical education. Further, the interviews with faculty explained how difficult it is to recruit and maintain a sufficient bank of clinical placements and capable educators who are willing to assist in undergraduate education. Therefore, it was pertinent to explore how the current cohort of clinical educators undertook their task.

The results of the survey of clinical educators showed what type of professional educational development activities this cohort of educators had and the disposition they brought to their educational responsibilities. These results provided preliminary insights into how they said they managed students' education when they were working with clients. On the other hand, the findings from the Observations Audit Tool (OAT) data elucidated how educators actually managed real-time, in-situ clinical education and health care events. The subsequent interviews with the clinical educators provided even greater insight into their rationale for the educational strategies they employed.

The students' survey results highlighted what students found valuable and what they found difficult in clinical education in general. The students' voice was captured by their responses to questions in the survey about the clinical educators' teaching characteristics, the nature of feedback they say they received and the timing and the content of student and educator discussions about client care. The OAT enabled data to be gathered about how students engaged with the educator during real-time, in-situ education and health care events. In addition, the interviews with students enabled closer examination of what educational strategies they found valuable in terms of their overall education experience in a clinical setting. In the next part, both the educators' and the students' voices will be discussed in turn before drawing inferences about the student-centredness of contemporary physiotherapy clinical education.

### The profile and disposition of contemporary physiotherapy clinical educators

Focussing on the educators, there is a substantial body of literature that espouses the advantages of having professional educational development specifically for clinical educators (Cottrell et al., 2002; Fontaine and Pullon, 2000; Gibson and Campbell, 2000; Notzer and Abramovitz, 2007; Sutkin et al., 2008). There is also a published



body of knowledge about how to prepare practitioner/clinical educators for their educative role (Bennett, 2003; Gibson and Campbell, 2000; Hesketh et al., 2001; Kilminster et al., 2007; Rodger et al., 2008). Suffice to say that there is general agreement that some level of professional development for practitioners who want to become engaged in clinical education has the potential to enhance the students' learning experiences as well as to enhance the educators' own knowledge and experience in this aspect of their professional role. However to date there is limited information about the professional development activities of physiotherapy clinical educators and the effects of these on undergraduate students. Also, the interviews with faculty in Part One: Stage One of this research clearly indicated the value faculty members place on the physiotherapy clinical educators engaging in professional educational development activities related to clinical education.

In this study the majority of the physiotherapist educators (n=37) said they had more than three years of experience as clinical educators. The majority said they had attended a meeting or a one-day seminar in clinical education. Only one had formal qualifications in this area. It would be reasonable to expect that the educators' attendance at one-day seminars or meetings included no formal assessment of what they learned. Therefore, this cohort of physiotherapist clinical educators only had informal professional development in clinical education. Yet, all educators who responded to the survey said they had time to undertake professional development related to clinical education. This is an area for careful consideration by the school and the university. None of the educators reported that they felt clinical education was an onerous task and they all felt comfortable asking clients in their respective clinics to participate in students' learning activities. With regard to remuneration, this research identified that the physiotherapy clinical educators in the Private Practice setting were the only group who did not regard themselves as being underpaid or undervalued. This perceived negative factor was a concern identified by the key faculty members. In the main, the clinical educators have reiterated the view the faculty members held, that some of the current cohort of physiotherapy clinical educators enjoyed their role as educators.

These findings were in contrast to an extensive body of literature on this aspect. The literature from physiotherapy and from the other allied disciplines and medicine reported that clinical educators felt undervalued and unsupported in their role and that they felt that they deserved more recognition (Busari et al., 2000; Currrens and Bithell, 2000; Doubt et al., 2004; Hendry et al., 2006; Lowry, 1993; McAllister and Moyle, 2006;

Ramani, 2003; Ramani et al., 2003; Skeff et al., 1997; Spencer, 2003; Stark, 2003).

The results from this study differed from those studies as all the physiotherapy educators stated that they felt valued for their educative role in the clinics in which they worked and they also felt supported by the university. These findings are evidence that the professional development offered by the university and the relationship it had with the educators was having a positive effect, even if it could be enhanced.

The findings that this cohort of physiotherapy clinical educators felt confident in their teaching differs to the report from Doubt et al., (2004), who suggested that some private practitioners felt insecure about their ability to bring excellence to their educative role. The findings also contrasted with what the members of faculty said, which was that many physiotherapists thought they might not have the necessary skills. This study indicated that this particular cohort of physiotherapy clinical educators did believe they had these educative skills and the interviews confirmed these findings.

Further, faculty were concerned that having a student present during clinical practice had the potential to adversely affect the therapist–client relationship, which might adversely affect client satisfaction in their treatment. However, the survey results showed that this particular cohort of physiotherapy clinical educators almost unanimously disagreed. These findings were later confirmed by the interview data. Higgs and McAllister (2007) promoted the idea that the educators' engagement in professional development activities facilitated a sense of being a clinical educator and having a sense of agency about the same. Yet, the results of this research, particularly the interview data, indicated that the physiotherapy clinical educators had a healthy sense of being an educator, even though they had only engaged in a very limited way with professional educational development related to clinical education. The reports from the clinical educator interviews established the educators' rationale for their management of student learning and this clearly showed that the educators had a sound understanding of what was important for students working in their particular clinical setting, with respect to what they needed to learn. They openly displayed their sense of responsibility to students, clients, the university and their profession. It was clear they all enjoyed being involved in education and they regarded their ongoing involvement to be beneficial to themselves, their places of work and their discipline.

Notwithstanding the former point, there is room for improvement in the clinical educators' application of educational theories in their daily educational activities. In particular it shows that this cohort of physiotherapy clinical educators would benefit

from having the skills that the literature suggests are important for clinical educators to have. In particular, to have knowledge of strategies for educating in the clinical setting (Bennett, 2003; Hesketh et al., 2001); to demonstrate awareness of education principles and theories (Gibson and Campbell, 2000; Hesketh et al., 2001); to know how to appraise learning styles (Mackenzie, 2001); and to have an awareness of appropriate attitudes, as well as ethical and legal matters (Hesketh et al., 2001). It can be seen from the results of the educators' survey that there is room for improvement across all the four different clinical education settings, in the frequency of the timing of student–educator discussions and the topics of their discussions in some areas.

With regard to the ongoing educational discussions, these findings showed a clear discrepancy between the students' and educators' reports of the timing of discussions in the four different settings. The students reported that there was a generally lower mean score of the frequency of briefing and de-briefing sessions across the four settings. This was in stark contrast to, and in almost a complete reverse of, the educators' reports. Those discrepancies were most marked in the Private Practice and Private Hospital settings. In the Community settings students and educators agreed that discussions during a consultation, and de-briefing sessions afterwards, were irregular. Students reported a lower frequency than their educators about de-briefing sessions. Using Figures 4 and 5, particularly Smith and Irby's framework, and Kolb's Learning Cycle as a starting framework, the importance of timing and the immediacy of feedback, to assimilate learning and to extend knowledge to the next stage, appears to be necessary. These are critical elements of clinical education strategies which aim to develop students' clinical reasoning and decision-making skills.

In the educational theory literature derived from the developmental proponents (Piaget, 1953) and the constructivist view, learning is a process of building new ideas onto existing ideas and knowledge: it is a social process whereby the learner is immersed in the learning context with a guide to support them. Additionally, the learner's reflective thinking through all of the possible consequences of the elements in a problem builds their knowledge. Further, Dewey (1910) advocated that learning takes place when learners are presented with problems to solve in the bona fide place of work related to the specific discipline. He believed in encouraging reflective thinking as a means of developing thought: the learner's reflective thinking passes through all of the possible consequences of the elements in a problem and, in such a way, builds his or her knowledge. This notion is supported more recently by Davis (2000), who said that in

tertiary education, the development of professional attributes of students is fostered if the learning environment is developed along the principles of constructivism.

Constructivism holds, as an 'a priori' assumption, that individuals do not learn by passive engagement with ideas and symbols, or responses to stimuli. This is significant to physiotherapy clinical education, where students need to incorporate a strong culture of reflection on practice and where students' preconceived ideas and reasoning are checked against the reality of clinical practice (Ajjawi and Higgs, 2008).

However, it seems from this research that the culture of reflection in the reality of daily practice could be improved. The content of educator–student discussions about client care shows some oversights. The *t*-test analysis showed a disparity between how often the educators say they discussed the given list of topics and their sub-items and what the student reported. During the observations of clinical education and health care, it was clear the educators discussed many of the topics and sub-items on the list with both students and clients. Although the rank order of the means varied between settings, the most overlooked topic of discussion according to the students in all the settings were:

- The students' experiences of similar cases;
- What the client contributed to the care plan;
- The rationale and/or the actual criteria for determining the response to treatment; and
- The rationale for the continuum of care and the actual advice given to client for consideration between visits.

These findings indicated that the construction of learning was happening vicariously and not purposively and did not include consideration of the clients' wants and needs. This deficit was also noted during the observations by a lack of discussion about the advice for the client for 'between visits', which is an extension of the construction on the current practice.

In summary, while admirable educational work is clearly taking place, more in-depth education about learning theories, facilitation methods and extension of thinking and reasoning needs to be added to the clinical educators' repertoires of educational knowledge.

The consequences of these findings will be discussed, along with the students' results, later in this chapter. The next section discusses what it is that physiotherapy students found valuable and also what difficulties they had in clinical education. It would be

reasonable to say that these are the topics they would like to have more discussions about with their clinical educator.

### Students' values and difficulties in clinical education

To restate what was presented in Chapter Two, it is assumed that professional placement provides students with opportunities to experience life in the workplace-natural setting, with the notion that such an experience will promote knowledge development (Fry et al., 2005; Winch and Gingell, 2005). Moreover, Higgs et al. (1991), Higgs and Edwards (1999), and Irby (1986) claimed that clinical education is chiefly concerned with developing the student's clinical reasoning skills and problem-solving and critical appraisal abilities. In addition, Higgs (1992) stated that in each clinical education-learning setting the student must learn to appreciate what it is to be both a health care provider and to evaluate their own professional readiness to be an autonomous health professional. According to Landridge and Hauck (1998), O'Sullivan et al., (2000), Thornton and Chapman (2000), and van der Hem-Stokroos et al., (2003), students value being able to take an active role in client care and have discussions with their clients and their educators. It is also well documented that students often find clinical education overwhelming, they are unsure of their adequacy for practice (Jolly, 1999; Yong, 1996) and they fear making mistakes (Kleehammer and Keck, 1990; Meyers, 1995). Moreover, some literature points out that experienced educators found difficulties when they encountered, in client-practitioner communications, unusual practice that was compounded with clients who had physical limitations, for example hearing and vision impairments, those with intellectual impairments such as learning disabilities, clients with language and educational difficulties, with religious differences, those from differing socioeconomic backgrounds and, lastly, those who displayed anxiety associated with their illness (Greenberg et al., 2006; Krupat et al, 2000; Levinson et al., 2005). Therefore, it is reasonable to conclude that students will have similar or even greater difficulties in these circumstances. This assumption appears to be accurate, because the findings from this research indicate that there is a match with the general goals of clinical education and what this cohort of students perceive are the benefits and difficulties of real-time, in-situ, clinical education opportunities that they had been provided.

This cohort of physiotherapy students reported they perceived multiple advantages of clinical education. Working with actual clients improved professional communication, rapport and skill development. Additionally, they acknowledged that clinical education

exposed them to examples of individual pathology and generated memorable learning experiences.

Clinical education enhanced their clinical reasoning and decision making and heightened their sense of responsibility. In short, the overarching attitude expressed by students in this study was exemplified by the following student's statement:

*Clinical practice provides a context. That is, a framework, by which to assess the treatment* (Student, No. 10).

These findings also align with Spencer et al., (2000) who reported that direct contact with clients plays a crucial role in the development of students' clinical reasoning, communication ability, professional attitudes, and the development of empathy.

The literature also reports ( Kleehammer and Keck, 1990; and Meyers, 1995) students have anxieties around a fear of making mistakes, a fear of failure, their lack of skills and their ability to communicate with clients. Also, students were found to have difficulty finding things to say to clients and that some particular client personality types concerned students, according to Ferencich et al. (1997), Cook (1996) and Remedios and Webb (2005). In this research it became evident that students' difficulties commonly related to the following: being unsure of their knowledge in certain conditions and of integrating theory into practice; being unsure of how to explain things; uncertainty in working with older people and very young people; managing communication with clients; other management issues such as increasing client compliance with the treatment plan. Students are aware that sometimes clients can become upset when they think they have paid for more than just a treatment by a student. However, when the Private Practice clients in this study were interviewed, they appeared supportive of having students involved in their care and most were even helpful to them by giving supportive and helpful feedback.

This research showed clearly that this cohort of physiotherapy students were aware that they lacked the skills to manage some situations and that there was potential for clients to be dissatisfied with the treatment they received from them. The survey results were supported by the interview data which found that students liked to be involved in all aspects of a client's care as much as possible. There were some instances, for example in the two examples of the Supervising Model of Education, in Private Practice Clinic One, where the students' abilities to manage difficult situations and clients were

tested. On one of those occasions, the client was satisfied with the student's work and on the other occasion, the client gave the student what appeared to be false positive responses about their satisfaction. Overall, though, the clients involved in the scenarios observed were very positive towards students being involved in their care. Several of them regarded it as an advantage which was a view that faculty members had noted from their experiences in organising clinical placement opportunities.

Moir (2003) reported that learning is enhanced if the learning problem is identified and the student asks for help. The findings from this research helped reinforce the concept that there is a clear need for students to be closely monitored in their work in order to manage and overcome their difficulties. Undoubtedly, regular and structured student and clinical educator dialogue can provide opportunities to address such difficult issues. However, in this research, as stated above, it was identified that the timing and content of student and educator dialogue about client care was variable. Nevertheless, best practice would be indicated when, in a situation of difficulty, students feel they can ask the educator questions and not feel embarrassed to do so. In the interviews with the educators, the majority of the cohort in this study said they knew it was important for students to feel comfortable to come to them for assistance. Also, it was clear from the educators' descriptions of their rationale for their management of clinical education, that they tried to create an atmosphere where this would be the case.

The majority of the students who participated in the observations and interviews indicated during interviews that they were indeed comfortable in asking for assistance. On the other hand, though, the survey results showed that when the client's feedback to the student highlighted an adverse outcome, not all of their comments indicated they would alert the clinical educator. Nineteen (19) of the student comments indicated that their first action would be to work the issues out for themselves. This is potentially problematic. These findings have significant connotations as they might reflect students' lack of insight into ethical practice (doing the person no harm) around the issue of reporting adverse clinical events. Such a finding demonstrates a tension with the principles of client-centred care (Australian Commission on Safety and Quality in Health Care, 2008; and Australian Physiotherapy Association, 2010). This is an area that needs to be explored more closely in future research.

It can be argued that the frequency, the timing and the content of any discussion between clinic educators and students will have significant bearing on reducing student anxiety which may, in turn, be expected to have some effect on the student's positive

perception of the education experience. Moreover, the frequency, timing and content of educator–student discussion may indeed affect the client’s clinical outcome. These considerations highlighted why it is important for clinical educators to seek feedback from the client about the student's work. By doing so, it is highly likely that these instances will be identified and managed in the appropriate way to ensure the learning event is comprehensive for the students and to ensure the maintenance of standards for the client's health care.

### Clinical educators' teaching characteristics

There is extensive literature that cites effective and ineffective teaching characteristics of clinical educators. These have been clearly identified and outlined in Chapter Three (Tables 5 and 6) and formed the basis for the relevant questions in the student survey. Further, what learning that does occur in any setting will be influenced significantly by the behaviours and educational skills of the clinical educator. In general, with the exception of the Private Hospital setting, where the mean score was slightly lower, this cohort of students regarded their educators as displaying enabling characteristics in their surveys and they did not display the ineffective characteristics identified in the literature.

In this research it was identified, through analysis of the rank of the mean of the students' report, that the physiotherapy students regarded their educators as having what the literature says are effective characteristics of clinical educators.

The students found, first and foremost, that the educators were respectful to them as students. The interviews with the students and the clinical educators demonstrated that the educators were endeavouring to act in a way that gave the students the best possible educational experience.

The students found their educators were good communicators, accessible, prepared for them and that they appeared to enjoy teaching. There was some variability in the generally positive trend in the private hospital setting. In that setting, there are lower mean scores on items such as, 'the educator seems to enjoy teaching', 'the educator displays good communication skills' and 'seems open minded and respectful of students'. The majority of the interviews with educators confirmed the students' perception of them, especially the observation that took place in the Private Hospital setting, which completely contrasted with this survey report. In that instance the educator was an excellent communicator, enjoyed teaching and was very open-minded



and respectful. Clearly, further exploration of the attributes of that particular clinical educator is necessary.

The interviews with students proved they were aware that different models of supervision were applicable in different situations and settings. During the interviews the themes emerging from the students' comments showed that they preferred a style of supervision that demonstrates: clear processes; that contains a lack of dogma; a respect for students' views; and also allows autonomy and a collegial atmosphere.

These all seem to mark what the student is looking for in their clinical placement. Sometimes the students liked to watch the educator treat clients because they knew at this stage the value of observing the work of another. Students appreciated educators who could explain things to them and who were able to share their knowledge and clinical reasoning. All of these findings were consistent with similar reports in the literature. There were only two examples, both in Private Practice, Clinic One, in which the students did not praise their educators' skills in education and did not feel they benefited from his work with them on the day the observations took place, because they thought the educator did not respect their views and did not allow them autonomy. These research results suggest that practice educators need to be more aware of enabling characteristics.

These findings add to the literature about physiotherapy clinical education and confirm what is known from other disciplines, what students find to be effective and ineffective characteristics of clinical educators. Jarski et al., (1990) and Higgs (1992) both recommended that the elements of adult learning principles ought to be incorporated into clinical education learning environments. The authors advocated for student-centred learning, for mutual respect and educator support for the integration of theory along with actual practice and reflection on practice. The findings from this research concurred with their recommendations. Overall, one of the most widely acknowledged attributes of an effective clinical educator is their ability to give timely and specific feedback on students' work. This is discussed in the next section.

#### The nature of the feedback given to students by the clinical educator

The literature reports best practice in feedback is when it is meaningful to the person concerned, that the feedback has been generated from the observations of the student's work (Kneebone et al., 2002). Feedback needs to be timely and to be delivered in a manner which builds the student's capacity to reflect on their practices

and to continually strive to improve their practice (Boendermaker et al., 2002; Torre et al., 2003; van der Hem-Stokroos et al., 2003). Another contemporary study by Ernstzen et al. (2009) reported what physiotherapy students and clinical educators have identified as the most important effective activities in order to facilitate learning in the clinical setting. These were, demonstrations of client management, having individual discussion with educators, being given immediate and verbal feedback and both formative and summative assessment.

In this research, the category of questions regarding educators' characteristics described above also included items related to feedback. That report showed students working in the Public Hospital setting had the highest of all the mean scores among the four settings, which indicated that educators in the Public Hospital settings gave student feedback on 'what students think about in clinic'. In contrast, the Private Hospitals scored the lowest for that item. However, those findings are in contrast to the students' responses to items in the particular category of questions which focused on the feedback they received from their clinical educators. The results of that category of questions showed the highest scores were found in the Private Hospital setting. The students reported that in the Private Hospitals 'the educators explained why a student's response or action was wrong' and 'identifies areas to improve'. The lowest mean scores of any of the four different settings was in the Private Practices. Students working in Private Practices reported that the clinical educator was unlikely to 'explain why response or action was right or wrong'. This study found there were differences in Private Practice and the expectations of those working in this setting. This context is one not explored deeply in previous studies.

The mainly positive survey reports regarding feedback given by the clinical educators to the students was confirmed by the Observation Audit Tool findings. The findings from the observations revealed that, during all observations except one, the students and educators conversed freely and the students' questions of the educator were responded to appropriately. The picture which has emerged about the feedback students are given by their clinical educators is that it is variable in quality and timing. The students' perception of the frequency with which feedback was given on specific aspects of their work varied in different settings. The observation data suggested otherwise, that the feedback was readily provided.

Nevertheless, these findings have implications for the quality of education in particular contexts. With the reports on the current status of shortages in available placements, it

might be necessary to focus clinical educators' professional development activities on 'best practice in feedback' so that more comprehensive feedback is given to students across all the different settings. This would assist in counteracting the under-utilization of the placement opportunities that are available.

In order to give meaningful feedback, it is important in the first instance that students' work is observed, and that time is specifically allocated for student and educator discussions at regular intervals. It will be shown in the next section that, according to students, the timing of student and educator discussions about client care are extremely variable across all settings, with low scores about the frequency of discussion coming again from the private hospital setting. This might not be about the 'context'; rather, it might be about particular individuals.

#### The timing of educator–student discussions about client care

Numerous educational strategies and frameworks espouse the multiple benefits of, and suggestions for, student and educator dialogue during and after client–student encounters (Guyatt and Nishikawa, 1993; Heidenreigh et al., 2000). Specifically, Martin et al. (2004), Moore et al. (2003), Roth (1996), Ramani et al. (2003) and Ramani (2003) recommend dialogue before *and* after a client–student consultation. Ferenchick et al. (1997), Neher et al. (1992) and Raiser et al. (2003) suggest dialogue *after* a client–student encounter. The analysis of the survey reports in this research show that the category of questions related to when students and educators discussed each client's case revealed a discrepancy between the different settings and also between students' and educators' reports.

The students in the Private Practice and Private Hospitals settings reported that briefing sessions were infrequently held, yet the educators' views differed. Educators and students in the Community clinic settings agreed that discussion during consultations and de-briefing sessions occurred irregularly (the students' report indicated a lesser frequency than their educators). Of more concern is the low mean score in the students' report of the frequency of de-briefing sessions across the board, which is almost the reverse of the educators' report. The difference between the perceptions of the two groups aside, the students' report is disquietening.

Regarding client–student communication, Lipman and Deatrick (1997) put forward the notion that students have difficulties talking with clients, recognising signs and symptoms and interpreting information, which in turn leads to difficulties in making clinical decisions. The students in this study reported similar difficulties as explained above. Cook (1996) also established that the timing of student and educator discussions was important because the assistance of the clinical educator in preparing students by providing instructions before and during their difficult experiences with clients greatly assisted them in learning to deal with a variety of clients and their needs. So it is reasonable to expect that physiotherapy students would be assisted by their educators similarly.

This was stated clearly by one student during their post-observation interview. The student involved in the observation at the Private Hospital indicated a structured teaching environment was helpful. The student's comments, as previously presented in Chapter Seven, were:

*It's good here, we have enough independent practice without the educator being constantly there. But we still have the educator available to talk to. We have a briefing session to discuss treatment plans. We have briefing sessions most of the time and de-briefing sessions every other day or if the treatment changes. They make sure we are safe in treatment and do our checks on progress.*

Another example, taken from the interviews reported in Chapter Seven, showed that in the Supervising Model, Clinic One, the students' and the educator did not engage in dialogue that was meaningful to the students and, as a consequence, the frustration of the students was unmistakable.

Time for student and educator discussion is known to be highly valued by students, according to Saarikoski et al. (2002). Briefing sessions prepare students for the client–student encounter. Discussions during a consultation allow the educator to monitor client and student progress. Alternatively, Daelmans et al. (2004), Hart and Rotem (1994), Hummell (1997), O'Sullivan et al. (2000), Raiser et al. (2003) and van der Hem-Stokroos et al. (2003) claimed that de-briefing sessions, in particular, provide students with an opportunity to discuss their experiences in order to critically evaluate their thinking and performance.

De-briefing sessions are the very essence of the Experiential Learning Cycle (Kolb, 1984). Lack of regular de-briefing sessions has the potential to inhibit students' opportunities to reflect on their practice, to develop the habit of critical reflection and for the educators to guide such reflections. A lack of reflection, and a lack of a discussion of the rationale for clinical decision-making, was also identified in the results of the topics of student and educator discussions, which are presented in the next section. It seems that this cohort of clinical educators, like those in the study of physiotherapists by Morris and Stew (2007, p. 419), 'need further guidance when promoting reflection on practice'. Even earlier, Cross (1995) advised that professional development for physiotherapy clinical educators ought to include knowledge such as how to give feedback and how to develop autonomous learners and reflective practitioners, yet we still notice a deficit in this aspect of clinical education.

#### The content of educator and student discussions about client care

Chapter Three outlined several strategies for clinical education events. These included consideration of not only when it is advantageous for students and educators to have a dialogue about client care, but also those strategies which promoted what the authors considered to be essential elements of such a dialogue (Ferenchick et al., 1997; Guyatt and Nishikawa, 1993; Heidenreigh et al., 2000; Martin et al., 2004; Moore et al., 2003; Neher et al., 1992; Raiser et al., 2003; Ramani et al., 2003; Ramani, 2003; Roth, 1996).

Yet, in appraisal of all the studies across different health science disciplines, there was a scarcity of those that looked at both the timing of the educator–student discussions and the content of those discussions. It is vital that such knowledge is gathered because educator–student discussions about client care provide the evidence of the extent of the application of experiential learning and education theory in clinical education.

In the results from this research, after the application of independent *t*-tests, it was clear there was a disparity between what topics students said they discussed with their educators and the frequency with which they said they discussed them. The educators reported the same. There was only a slight variation between the four different types of clinical education settings. To review, across each category of topics and each of the sub-items within the list of topics, all the differences were statistically significant ( $p < 0.001$ ). This confirms that the students' perceptions of the situation are totally different from the educators' perceptions.

The rank mean of the overall scores, presented in Table 21, Chapter Five, showed what students report as the least frequently discussed topics. Omission of discussion of each of the topics has different consequences. The topics were: the students' experiences of similar cases; what the client contributed to the care plan; the rationale and/or the actual criteria for determining the response to treatment; and the rationale for the continuum of care and the actual advice given to client for between visits. Both the student survey results and the findings from the observations of real-time clinical education events showed there was a broad-spectrum lack of discussion of the continuum of care and advice given to the client between visits, not what the client contributed to the care plan. Thus it can be inferred that there is an omission in the students' education and also a lack of emphasis on involving the client in the management of their own health-care, which can impact the clinical outcome.

These findings showed that the educational event was focussed on the immediate practice with the client and did not take the natural extension of practice into consideration. From this research one can see that this reflects a superficial level of client-centredness, as it does not embrace the whole gamut of practice.

Lack of discussion of the criteria for determining response to treatment has the potential to limit the student's skill and knowledge development in understanding treatment outcomes. Outcomes aside, the student's understanding of the rationale for the diagnosis is critical to their integration of theory to practice, which is the overarching aim of clinical education (APC, 2006; Cooper et al., 2003; Dunn and Saintonge, 1997; Fry et al., 2005; Higgs et al., 1991; Higgs and Edwards, 1999; Irby, 1986).

The need to discuss students' experiences of similar cases was noted by Boendermaker et al. (2002). Lack of discussion with the student about similar cases they have seen has the potential to inhibit the development of the student's skills in reflection as well as in critical thinking, clinical reasoning, comparative analysis and interpretation of the success of treatment outcomes. The student's success in clinical practice will ultimately depend, to some degree, on his or her ability to reflect on similar cases in their memory.

The repeated omission of the former is concerning. A lack of discussion of these issues, if they occur on a widespread or regular basis, are likely to have a significant impact on the students' development of a deeper understanding of their practice, their ability to reflect on practice and, thus, to re-formulate these clinical concepts for future practice.

Even though the educator–student dialogue in clinics is situation-dependent, the need for discussion of each of the above issues is critical for different reasons. It is quite possible that, by comparing previous experiences, it will add value to the student learning and it can be expected that senior students, in particular, will have had experiences with similar cases about which they can compare and discuss. Reflecting on comparisons of similarities and differences helps facilitate the students' development of critical thinking.

According to Kolb (1984), in order to transform theoretical knowledge attained at university to practical working knowledge — the key aim of clinical education — students and educators need a guide. That is, they need discussion with a person who has more experience than they have had, to help them apply standards, logic, analysis, the ability to predict outcomes, to understand the basis of such predictions, and to help them to discriminate information. A lack of engagement with reflection may potentially prohibit the students' skill and knowledge development, especially in critical thinking and self-assessment, which are both derived from an understanding of reasoning and judgements made in the clinical education setting. A clinical educators' lack of discussion and reflection is not in alignment with Kolb's (1984) cycle of experiential teaching and learning.

Lack of discussion about the advice given to the client for between visits and the criteria to evaluate responses to care in particular are also concerning, because it is only during assessment and evaluation that subtle patterns and deviations from normal responses can be detected in the client's condition. Advising what the client is to look for and how they are to manage themselves between consultations is critical to a positive clinical outcome. Such things must be accurately stated. Close monitoring of the client's progress requires the gathering of subjective and objective information that enables complete justification for the application of the therapeutic intervention. Without thorough knowledge of assessment and clear criteria to judge response to care, how can a practitioner tailor treatment? How can a care plan be revised? How can a student identify their own clinical strengths and weaknesses? How can they make the successful transition from a student to a professional?

With regard to the construction of knowledge, Ryan (1995, p.245) said:

*Methods that encourage construction of knowledge and the development of understanding, where an individual's conceptual framework serves as the foundation upon which further learning can be built, can be particularly powerful and are likely to be more congruent with the actual complexities of practice.*

The clinical educators' focus on the 'discussion' aspect of teaching and learning is critical. Not to do so, has the potential to inhibit the development of the students' skills, affect client care and the transference of wisdom from experts to novices, whereas doing so enables the educator to manage the student's positive and negative learning experiences, and to evaluate the student's preconceptions. The aim of educator–student dialogue ought to be to stimulate more sophisticated thinking and discussion about significant issues.

It cannot be understated that moments of educator–student dialogue are key incidences in which it is possible for students to learn from the acumen of experienced practitioners in their discipline, and for the educator to hear and assess the student's thinking, reasoning and judgements (Ferenchick et al., 1997; Guyatt and Nishikawa, 1993; Heidenreigh et al., 2000; Kurth et al., 1997; Lipsky et al., 1999; Neher et al., 1992; Raiser et al., 2003; Ramani, 2003a; Ramani et al., 2003; Roth, 1996).

Without knowing how the student judges clinical events, the educator is unable to accurately tailor teaching events to meet the student's learning needs. However, this is what the educators interviewed said they strive to achieve. In stating the same, the educators expressed their views that they regard clinical education to be a place for students to learn; they do not regard students as junior workers.

What is most important is not the length of such discussions but rather the substance of the learning moments within the discussion. When topics are regularly omitted from educator and student discussion, there is potential for the student to function only at a superficial, merely procedural level, without a deeper conceptual understanding of clinical practice. There is great potential for students to work with clients, without the educator knowing how well the student is able to apply theory to practice. The irregular occurrence of de-briefing sessions hinders the educators' ability to develop the student's metacognition, their self assessment, and the 'on the spot' analysis of a situation which is critical to developing situational understanding, which is what the educators say they aspire to.



While it is impossible to predict what one person will learn from an activity, there is a real potential that the development of the students' clinical praxis might be impeded by regular oversights in discussion of some critical issues. The regular omissions of particular topics in educator–student discussion are a threat to the student-centredness of the educational event. It is arguable that it is precisely the client–educator–student discussion of such issues, such as the ones critiqued in this study, in real-time, in an authentic professional placement setting, the day-today health care setting, which constitutes the 'value added' clinical education component of health science curricula. The importance and urgency of the client's presenting health issues direct the educational event and each individual circumstance will impact on the degree to which the educator is able to involve the student. Notwithstanding that point, the educator has the responsibility to manage the clinical practicum in a way that optimises the student's learning goals, especially in relation to topics the student wants to discuss.

If educators are aware of what topics the students want to discuss and areas of their work they would like to have feedback on, then their management of clinical education would more precisely reflect their intention, which is to help students develop the necessary skills required of the relevant government authorities and accreditation bodies. The educators' lack of attention to such matters indicates their lack of observance of the notion of student–centred learning, even though the interviews showed their intention to be otherwise. Education in the clinical setting is not the same as learning in the lecture theatre. According to Cooper et al. (2003, p.2), practice education is:

*...messy and unpredictable. Learning episodes are brief and high risk, and they are not replicable. Reflection and de-briefing are needed due to the immediate nature of the critical learning experiences.*

The extent to which the clinical educators' lack of participation in formal professional development activities regarding clinical education impacts on their educational strategies is unknown. With all the best of intentions, as displayed in the survey results and the observations and interviews with clinical educators, this cohort of clinical educators might benefit from further instruction on how to manage de-briefing sessions and how to fully apply experiential teaching and learning theory in their practices. In de-briefing sessions in particular, the educator needs to have the skills that invite the students to self-reflect, to review the students' specific performance and to encourage further learning.

Clinical learning is a mix of developing ones' cognitive abilities, social thinking and acting associated within culturally relevant and meaningful events. The students themselves have a strong sense of what constitutes good clinical education and this was revealed during the interviews with them. It is undeniable that this cohort of physiotherapy students preferred to be involved in decision making about the process of supervision and the same sentiment has been expressed in the literature by other cohorts of health professional students such as those in nursing by Landridge and Hauck, (1998) and Thornton and Chapman (2000), also in medicine by O'Sullivan et al. (2000) van der Hem-Stokroos et al. (2003), and Kilminster and Jolly (2000).

The role of the clinical educator is to develop the individual student's full capacity to function effectively in clinical settings. Therefore, what is most important to students is that the style of education is negotiated between them and their clinic educator. Negotiation about the style of education encourages students to be reflective and self-directed learners. Through negotiating the educational activities with the student, the practice educator ensures that such activities are relevant to the students' needs, which maximises the effectiveness of their clinical education opportunities. This is particularly important in what faculty members have described as a climate of shrinking placement opportunities for students to attend. It is important for the educator not to presume what the students need and want to learn.

Students are aware that different models of supervision are applicable to different settings. Nevertheless, clear processes, lack of dogma, respect for students' views, autonomy and a collegial atmosphere seem to mark what the student is looking for in their clinical educator. Sometimes the students like to watch educators work with clients because they know the value of observing the work of another. In the main though, students appreciate an educator who is able to explain things to them and who is able to have discussions about reasoning. For example 'I'm doing ... because of ... and what do you think?' 'Would you do ... or ...?' 'Is it appropriate?' 'Is there evidence for me to do this?' 'Is my treatment addressing the client's problem?'

## **Summary of Chapter Eight**

The research findings presented here position physiotherapy clinical educators well, in terms of what the current literature highlights as effective and ineffective clinical educator teaching characteristics. Overall, though, there is a noticeable disparity between the students' high regard for the educators' teaching characteristics and the

tenor of the feedback they are given on their clinical work and their dialogue about client care. Perhaps the students regard their clinical practicum experience to be satisfactory, whereas it appears to be inadequate to the researcher's eye (during observations) when weighing it against elements of Kolb's (1984) Learning Cycle. Kolb's (1984) framework imbues a mandate for a more substantive effort towards developing students' deeper understanding via reflective discussion, including time for comparing similar cases.

Overall the educators' interview data showed the rationale for their respective approaches to clinical education and it was clear that they strived to ensure safe care for the client and sound educational experiences for the students. The educators explain that what impacts on their management of students' educational events is the nature of the client's health concern, what they think the student can offer the client and what the student needs to learn and the time there is available to supervise the student's work.

The students' views indicate that they aspire to the same. While the majority of the observations of actual clinical education and health care showed the physiotherapy educators are able to provide students with a solid educational experience, there were two instances that were in stark contrast to their educators' stated intent. When combined with the students' survey results about the variability of the timing and content of student and educator discussion, it indicated that the physiotherapy clinical educators may not be alert to the educational value of closing the experiential learning loop as articulated by Kolb (1984).

Although the survey, observation and interview data analysis did not in any way indicate a gross insufficiency, this study showed there is room for improvement, or at least awareness raising with educators about the educational value of dialogue between students and themselves, which is purposefully designed to expand the students' abilities to reflect on practice and to enlarge their individual clinical schema. It has not been possible, within this study, to determine the content of the one-day workshops and meeting this cohort of educators who attended, but it would seem worthwhile that a review of these topics be included in future professional development activities for clinical educators associated with the particular university at which this study took place.

The collation of the survey results, the observations and interview findings revealed that the topics of student and educator discussion and the timing of those discussions are case-dependent. The clinical educator organised the educational events according to his or her perception of the clients' needs and the students' ability to meet those needs. It is therefore possible that when there is a mismatch between the student's skill-set and the client's needs, for safety reasons it is appropriate that the clinical educator may prefer to use a more educator-centred strategy which, in and of itself, is evidence of being student-centred.

The mosaic presented by combining the students' and educators' voices permitted a final stage of analysis in which the results and findings were examined against the three theoretical propositions developed from the literature, which were explained in Chapter Four. The next chapter, Chapter Nine, continues with a discussion of the client-centredness of contemporary physiotherapy clinical education.

### **Key findings about student-centred education**

In summary, the conclusion from this research into contemporary physiotherapy education is that the core principles of student-centred education are evident to some degree, with some key elements overlooked.

One of the new insights that emerged from this research included the need to consider the extent to which optimal outcomes for clients and students depends on the preparedness of clinical educators for their educative role, in particular whether formal programs of professional development include an assessment of their readiness for their position. There is a need to:

- strengthen the alignment between students' learning needs and educators' foci of discussion;
- raise awareness of the importance of de-briefing as an opportunity for promoting deeper reflection on learning;
- emphasise student–educator discussions about how the client can contribute to the management of their own care. Omitting such discussion with students undervalues the requirement for the client to assume particular levels of responsibility for their own care;
- be more explicit about the active nature of the clients' role in the learning event.

## **CHAPTER NINE**

### **DISCUSSING CONTEMPORARY PHYSIOTHERAPY CLINICAL EDUCATION: CLIENT-CENTRED CARE**

#### **Introduction**

This chapter continues discussion of the outcomes of this research, but this time with a focus on client-centred care. Health science students, such as physiotherapists, cannot be expected to learn all they need to know for safe and effective practice if they are not fully immersed in a professional workplace setting which exposes them to a variety of clients and episodes of health care. By exposing students to clinical environments, faculty intend that they will learn the knowledge, skills and values of their discipline.

One of the core values of the discipline of physiotherapy is that of client-centredness, which was described in detail in Chapter Two. In this study, the client-centred nature of physiotherapy clinical education was explored by student and educator surveys, observations of clinical education scenarios and interviews with each member of the clinical education triad: the client, educator and student. Each of their respective points of view is presented below. The chapter concludes with statements about the emergence of new insights, understanding and knowledge derived from this study.

In order for students to learn to be client-centred it is important that first they understand the concept and, secondly, that they witness the application of this concept. These two points are supported by Harris and Naylor (1992), who wrote that the feature of a well planned clinical practicum is evidence that students are encouraged to be client-focused rather than technique-focused. Haidet et al. (2006) and Potter et al. (2003) also advocated client-centredness, saying that when students experience a client-centred atmosphere in clinical education, together with the encouragement they receive to be client-centred, and the example they are set by their clinical educators, this indicates to the students that client-centredness is an important issue. Client-centredness is a particular feature of this research, and has been little addressed in the practice education literature. Studies in nursing and medicine have introduced this concept but have not explained it in depth. The next part of this chapter will discuss what the clients' views were of their encounters with the students.

## **The client's voice**

The client's voice was collected through the interviews that took place immediately after the observations of physiotherapy consultations involving the students. The interviews included their views on the level of satisfaction with the consultation and with the student's clinical work.

On the whole, the findings from this study in physiotherapy clinical education were in accord with the many other studies listed below from different disciplines. These found that clients have a positive attitude towards having health professional students involved in their care and that the quality of the consultation was not adversely affected by the presence of the student (Cooke et al., 1996; Chipp et al., 2004; Devera-Sales et al., 1999; Freeth et al., 2001; O'Flynn et al., 1999; O'Malley et al., 1997; Thomas et al., 1999; Xing and Long, 2006).

The client interview data demonstrated a great deal of client satisfaction in being involved in physiotherapy students' education. Irrespective of the setting in which the clients interviewed had been treated, in the main, they all had a positive attitude toward being involved with the students' education. The one exception was documented during observations of the mixed reaction of a client in Private Practice, Clinic One. The client's non-verbal cues indicated dissatisfaction. However, even though he appeared to have a strong sense of agency, that client did not verbally express what appeared to be his true sentiments to the student involved.

Chipp et al. (2004), said clients' participation in the education of health professional students may very much depend on the nature of the clients' perception of the students, the nature of the procedure, the clients' state of health, their personalities and belief systems. Demonstrating consistency with those findings, the interview data from this study showed the clients displayed that they interacted with students in various ways, all of which were, in the clients' mind, helpful. For example, when asked why one client gave the student ongoing feedback, she explained that it was because her professional background had enabled her to know the importance of giving students feedback (Private Practice, Clinic Three). On the other hand, another client indicated that he withheld his feedback because the student was 'only learning' (Public Hospital Two, Scenario A). The student survey results showed that, irrespective of the clinical education setting, students did ask the clients for feedback. However, it can be seen from the comparison of the above that there is always a possibility that feedback from the client to the student might not be accurate.

The qualitative data from the interviews, particularly the one from the client in Private Practice, Clinic Three, Scenario B, indicated that most clients were alert to what the student comprehended about their case, and tried to assist the student's learning by giving them feedback. The data indicates that the feedback given was mostly driven by the clients' desire to ensure safe and effective treatment. Clients tried to be helpful because most thought being involved in clinical education was an advantage to them due to of the overt commitment of the student and the educator at the learning event.

The instances where clients fail to communicate spontaneously, and in a way that conveys their real feelings will have an impact on the student's learning since the student might develop a false sense of their skills in relation to client care. In the instance in Scenario B, in Private Practice, Clinic One, where the client gave the student mixed messages, a great deal of learning could have been achieved had the client had the courage to be authentic. However, what is equally valuable for students to learn is that not all clients give genuine feedback. This finding indicates that educators need to be more explicit with the clients when they ask for their consent. Even stating that it would be helpful to the students for the clients to talk to them more and explain more about their condition, as well as giving them feedback about their performance.

In real-time, in-situ clinical education, students have an opportunity to hear how the health condition affects the person and to learn how different people interact with health professionals. Clients may be inclined to confirm, clarify, refute or add to what is known about their case, for it is each client who will, if they choose to, provide particular feedback to the students about the effectiveness and the efficiency of the students' clinical procedures. It has been reported previously that clients want to tell students about their experience of their particular health issue (Haffling and Håkansson, 2008; Thistlethwaite and Cockayne, 2004).

Although this study did not explore the depth of the students' questioning of clients, the findings from observations clearly indicated that, in general, students were making use of opportunities to learn from the real clients who interacted with them. Such opportunities were the very great advantage that clinical practice has over other forms of teaching about client care. Therefore, any action taken to facilitate the client giving feedback to students will undoubtedly enhance the development of the student's clinical reasoning. Such action might be seen to maximise learning opportunities and minimise risk to client and student safety. If such interaction is encouraged, the extent

of the client's contribution to the students' knowledge and skill development as well as to the client-centred nature of clinical education is beyond measure. If the student is unaware of how the client is experiencing the condition and the treatment/management plan, there is increased likelihood that the student may develop an artificial understanding of client behaviours, tolerances and the benefits and effects of some types of clinical procedures and interventions.

### **Client-centred dialogue during a consultation**

Strumberg (2005) highlighted the 'connect' with the person behind the disease as critical. Engle (1978) said that focusing on the bio-psychosocial model of health care, which is concerned with how the clients' feel, function and relate to their world in the course of their health concerns, is indicative of client-centredness. These sentiments were applied in the frameworks presented by Monekosso (1998) and Makoul (2001) for client and practitioner communication, as detailed in Chapter Three. Based on these frameworks, the observation data also provided information about whether or not the client was asked the six (6) questions which reflected the students' or the educators' client-centredness. These included whether or not the client was asked about their understanding and expectations, their willingness to comply, consideration of the plan for unexpected outcomes and the client's level of comfort.

Data analysis in the present study revealed regular omissions. For example, in Private Practice, Clinic Two, a perfect score was recorded where all aspects of client-centredness were apparent. On five (5) occasions, in both the Private Practice clinics and in Public Hospitals, the majority of the abovementioned aspects of client-centredness were covered. In four (4) scenarios the aspect of client-centredness was not evident to any great extent. Two of these were in Private Practice and two in a Public Hospital.

Clients in the clinical education setting provide a stimulus for learning. Each learning event assists the student to build a clinical memory and the clients gain because the students are interested in them. In this study, the interview findings showed a high level of client satisfaction. However, the report from the OAT showed that the majority of them were not asked all the questions that were considered indicative of the students' or educators' client-centredness, according Monekosso (1998) and Makoul (2001). This begs the question, 'What are the other features of the interactions between clients, educators and students that contribute to, or distract from, client satisfaction?' These questions remain unanswered and might be the subject of future studies.



Thus, the client is a major driver of clinical education events and may limit the students' learning opportunities; teaching in the presence of the client is integral to the student's preparation for practice. Further, the client's allowance of the student to be involved in their healthcare is based on the trust the client has in the practitioner/educator. The interviews with clients showed clearly that they trusted the clinical educator's judgement, they trusted the students, and they trusted in the education processes. They trusted the other two members of the clinical education triad to do their best.

### **The clinical educator's voice**

The findings from interviews with clinical educators suggested that the physiotherapy educators were alert to the need to provide adequate student supervision and client-centred care. The educators and students both expressed their understanding of client-centred care and felt they had demonstrated this during the observed scenarios of clinical education and health care. Although the dialogue during the consultation indicated that this could be improved, there was an overwhelming sense from the combined results and findings that it would be reasonable to expect that students will continue to acknowledge the need to be client-focused in their professional lives as expected by the various stakeholders.

The overall sentiment of the students' and educators' views on client-centredness was expressed well by the interview with the educator in Private Practice, Clinic Two. He recounted that he felt that the most important thing is that students do not see clients as 'guinea pigs', that it is important during clinical education to ensure that the clients actually receive appropriate health care. Such sentiments are in accordance with the literature that indicates clinical educators who do seek to demonstrate client-centredness through shared decision-making reinforce the value physiotherapists place on the client's contribution to a successful clinical outcome (Potter et al., 2003). A client-centred attitude is a requirement of entry-level physiotherapists (Australian Physiotherapy Council, 2008) and a client-centred attitude is something students admire in their clinical educators (Yeates et al., 2008). This study confirmed the presence of attitudes and behaviours consistent with those requirements.

The literature, presented in Chapter Three, showed that there are several legal concerns for clinical educators (Kapp, 1983, 1984, 1984a; Kinsman, 2000; Klig, 2003; NSW Registration Board, 2010).

These are that:

- There is a need to standardise operational procedures for client–student interaction. Students must be given clear rules, procedures and instruction in the proper manner of care, and they must never be left alone to undertake procedures when there is potential for serious injury to a client;
- Students may potentially be held liable for a standard of care that is comparable to a registered practitioner (depending on the educational situation), and if negligent in the care of the client, can result in a claim of direct or indirect (vicarious) liability for the supervisor. The students' education status must be disclosed to the client; and
- The clinical supervisor is liable for the quality of the supervision given to students, as well as for the quality of the care given to clients by students supervised by them. It should be explicit to clients that students are an extension of, rather than substitutes for, clinical staff in all activities related to their care.

It is critical to have clients give their informed consent-to-care by students. Clients involved with students, within a learning event, must be informed that those with whom they are dealing are, in fact, students. Clients involved with students' education must be asked to give consent-to-care by students, and that consent ought to be renewed at regular intervals and in different situations.

The educator's voice on these matters was represented in the first instance by their survey responses to questions about whether or not clients were asked to give informed consent to student involvement in their health care, advised of the student's education status and, if the educator asks the client to be pro-active in the student's education. Those findings showed that:

- Often or always, across all settings, the clients were asked to give informed consent to student participation. This was confirmed by the observation findings;
- Sometimes, but less frequently in the public hospitals, the educators do discuss what the student is learning with the individual client; and
- Sometimes, but less frequently in public hospital settings, the educators do invite the client to be an active participant in the student's learning.

The clinic educator has the overall authority to judge what clients are suitable for the student to see and if the client has the capacity to accommodate a learning situation. Once clients have been identified, their consent is likely to be sought for physiotherapy students to participate in their health care. This is often achieved by asking the client on the phone, when they are making an appointment, or via a standard clinic form as

was the case in Private Practice, Clinic One. It is imperative that the client is advised of the presence of the student and the impact of the student's involvement, if they agree to participate.

The Australian Patient Safety Education Framework (2005) and the Australian Commission on Quality and Safety in Healthcare (2008) inform strategic plans for the delivery of health care nationally and, when considered together with the attributes expected of entry-level physiotherapists, it is clear that graduates are expected to be able to demonstrate that he or she obtains consent from clients for physiotherapy intervention. Informed consent to care by a registered practitioner is a central element of professional practice. The awareness that consent is dynamic, that it can be withdrawn at any time, is inherent in physiotherapy practice. Clearly it is of paramount importance for the clinical educator/practitioner to employ the same standards towards clients' care provided by students during clinical education. These previous expectations and findings were borne out in this study. To recapitulate, the 'Ten Rights of People Receiving Physiotherapy and Ten Responsibilities of People Receiving Physiotherapy' (NSW Registration Board) state that clients' have the right to:

1. Be treated with respect;
2. Be free from discrimination, coercion, harassment and exploitation;
3. Their dignity and independence;
4. Be provided with services of an appropriate standard;
5. Be provided with effective communication;
6. Be fully informed;
7. Make an informed choice and to be asked to give informed consent;
8. Have appropriate support;
9. Be the subject of medical research or teaching only with informed consent; and
10. Make a complaint.

Although the client's understanding of consent being dynamic was not explored in this study, from the nature of the responses from the client interviews, it seems clear that they were assertive enough and had sufficient agency to withdraw consent if they chose. How 'consent' is interpreted by clients remains unknown. Other aspects related to the clients' rights detailed above are explored in the next section.

### **The student's voice**

The survey data showed whether the students asked the client for feedback and also what action they took if they suspected an adverse clinical event. The observation report indicated the tenor of the dialogue between the client, educator and student

about the client's comfort and knowledge of clinical procedures. Student interview data showed their understanding of client-centred care and if they felt the observed episode of education/health care was an example of the application of client-centred care. Although the student survey results indicated students do ask clients for feedback, there are, nevertheless, shortcomings in all three areas. These findings could not be compared with the literature as this topic has not been explored to any great depth previously.

It appears from this study that the students' interpretation of what it means to be 'client-centred' varied widely, particularly in their application. Communicating honestly with clients and their clinical educator on all clinical events, adverse or not, is critical. Yet, the students' survey report showed they did not always alert the clinical educator if they suspected an adverse clinical event. This is concerning and is an area needing further, more detailed investigation. It would be difficult to calculate how the impact of the students' lack of clarity of the legal requirements and responsibilities during clinical practice impacts on their behaviour towards their educators and clients. Students may unwittingly be putting themselves and others at risk.

## **Summary of Chapter Nine**

It can be seen that, irrespective of the setting in which the clients interviewed had been treated, in the main they all had a positive attitude toward being involved with the student's education. Most clients thought being involved in clinical education was an advantage to them. Even though they were concerned about the standard of treatment, they were willing to be involved. They trusted the clinical education processes. While the clients were positive in their attitudes toward student involvement in their care, they seemed keen to put a positive face on their interaction with students, although there appeared to be a caveat on the extent of their involvement. It seems clear that the clients were alert to what the student comprehends about their case and they tried to assist them in their learning more by giving them feedback. The nature of the feedback clients gave to students indicated they give feedback firstly in order to ensure safe treatment, but also because they considered the student's need to be empowered in a learning experience. Educators and students alike had a clear knowledge of what it was to be client-centred and, although there were some oversights, they appeared to achieve this to the clients' satisfaction.

The aforementioned documents, together with the Policy on Professional Conduct

(NSW Physiotherapy Registration Board, 2010), explained the parameters of clinical practice of a physiotherapist and the general tenor of what is expected during a physiotherapist's interaction with a client. It would generally be expected that during clinical education, students would become increasingly familiar with the parameters of practices and what they, as registered practitioners, can expect from members of the public who consult them.

The consensus of several authors is that an educationally sound clinical education strategy ought to include particular topics, within regularly held discussions between the student and educator, before, during and after student–client interaction (Ferenchick et al., 1997; Guyatt and Nishikawa, 1993; Heidenreigh et al., 2000; Kurth et al., 1997; Lipsky et al., 1999; Neher et al., 1992; Raiser et al., 2003; Ramani, 2003a; Ramani et al., 2003; Roth, 1996). Such discussions are essentially designed to monitor the clients' progress, to confirm the students' actions, decisions and roles related to the episode of care. It seems reasonable to assume that the application of this type of educational strategy demonstrates to the student the clinical educator's client-centred clinical practices.

### **Key findings concerning client-centred care**

Therefore, in relation to the propositions previously described in Chapter Four, the findings from this study confirm, with some reservation, the following proposition: That the core principles of client-centred care are understood and applied in the education strategies. The clinical educators and the students demonstrated intent to work collaboratively with clients to adjust care and support so that it takes cognisance of the client's experience, needs and goals. Clinical educators and students apply these concepts so that the essential elements are recognisable to the client.

New insights from this research, in addition to those presented at the end of the previous chapter, include the need to consider the following issues:

- The need to further develop concepts inherent in ethical reasoning to ensure safe practice within the provision of care by students.
- The extent to which the presence of the student during clinical interventions has an effect on client satisfaction with the therapeutic care provided.
- The centrality of discussion about care involving all parties within the learning triad, student educator and client, and the way this has emerged as a central feature of clinical practice. This warrants further study.

## CHAPTER TEN CONCLUDING THE STUDY

The research sought to discover what features of the clinical education process epitomized student-centred education and what features epitomized client-centred care. There were gaps in the allied health literature related to these concepts and the findings showed that, by and large, these concepts were being applied.

This study built on previous research in the field of clinical education. It also broke new ground by using a combination of tools — interviews, surveys, observations, and post-event interviews — in order to explore the views of the three members of the clinical education triad in the same study: the clients, educators and students. Considering that basis, there are many reasons why the current study will contribute to scholarly discourse about clinical education. It is the first of its kind to:

- explore actual student and clinical educator dialogue about client care;
- explore client, educator and student verbal interactions;
- observe actual real-time, in-situ clinical education scenarios and interview the participants; and
- explore the clients', educators' and students' views of the same event.

The findings demonstrated that undergraduate physiotherapy clinical education seems to be undertaken in alignment with the requirements of the Australian Physiotherapy Council (2006; 2009) and the Australian Commission on Safety and Quality in Health Care (2008). These documents affirm the broader legal and ethical requirements of all health practitioners to obtain a client's informed consent to student participation in their care. This study found that, in all the instances, client consent was obtained. However, this research also indicated, for educational purposes, that at the time of seeking consent it would be an advantage if the client was also asked to participate more in the students' education.

The aforementioned documents above also affirm that health practice needs to be client-centred in every way. The literature said very little about how client-centredness was both taught and applied in clinical education. Nor did it explain an educational framework that represented this concept in action. This study showed that the physiotherapy educators were practising their teaching practices in a client-centred way. It also showed that students had a very clear intention to be client-centred. It showed that the clients in this study felt that clinical consultations involving the

students were not a disadvantage and they were happy to be involved with students trying to learn. New understanding, knowledge and insights arising from the study were outlined at the conclusion of Chapters Five, Six, Seven, Eight and Nine. The central query was, 'Do the students' and educators' actions facilitate client engagement in the education process while at the same time still tending to the clients' needs?', or 'Do the clients feel their needs are secondary to the education process?' How the educators teach and how the client feels about being involved in clinical education are critical to understanding whether or not the students are learning their domain specific knowledge and skill sets or applying their knowledge and skills sets to manage individual client's rights, unique needs and values. Specifically, this study sought to address particular gaps in the current literature and to discover the clients', students' and clinical educators' views of physiotherapy clinical education. Their views are as follows.

Contextual information elicited from interviews with faculty and the student and clinical educators' surveys showed that organising placements for large cohorts of students is a complex task. This is complicated by the fact that there are several universities competing for the limited placement opportunities and it appears that incentives need to be offered to host organisations. With regard to the organisation of clinical practice, it was found that the majority of third year students co-treat, whereas the majority of fourth year students work as semi-autonomous physiotherapy practitioners and the most common student to educator ratio is 2:1. In addition, it was found that students consult with up to ten clients per day, except in the Community setting where they consult with up to five.

Physiotherapy clinical educators said they had time to participate in professional development in clinical education. All surveyed educators, with the exception of those in the Private Practice setting, thought clinical educators were underpaid. This cohort of clinical educators did not find working with students an onerous task and they felt confident in their educative skills. They felt comfortable asking the client if a student could be involved in their health care and they did not think the presence of the student inhibited the physiotherapist–client relationship. The educators felt they were well informed and well supported by the university and they also felt valued for their contribution to student education in the clinics in which they worked.

Physiotherapy students looked upon clinical education opportunities as an opportunity to: improve their communication, rapport and skill development; be exposed to

individuals with pathology; have memorable learning experiences; develop their clinical reasoning and decision-making abilities; and develop a heightened sense of responsibility. During their clinical education, students said they experienced feelings of inadequacy, they had communication difficulties, and were confronted by some types of clients and certain types of illnesses during their clinical education opportunities. Even though slightly lower scores were recorded in the Private Hospital Setting, overall students regarded their educators as displaying the following characteristics: respectful to students and clients; competent in physiotherapy clinical practice; possessing good communication skills, being clear and indicating they were open-minded; accessible, well prepared and organised; enjoyed teaching and asked questions which extended students' knowledge; and did not embarrass students or use sarcasm.

The feedback students were provided by their educators differed minimally between settings, with the Private Practice Setting noted as a setting where the students received slightly less feedback. However, across the board, students regarded their educators as providing them with positive and informative feedback. The feedback offered to students during the observations was ongoing. Therefore, the survey findings conflicted with the observations.

Students were, in the main, highly likely to ask their clients for feedback, with a slightly less frequency noted in the Private Hospital Setting. However, what they did with that feedback was questionable. Just under one-quarter of the students' comments about managing adverse events indicated that they might not necessarily alert their educator if they thought a client had experienced an adverse clinical event.

Across the board, students highly valued a well-managed clinical education experience. They did not appreciate ambiguity or inconsistency. They respected competent, well organised clinical educators.

The profile of the clinical educators showed that most educators had three or more years experience in clinical education. Their professional development consisted mainly of attending one-day workshops. The clinical educators employed various styles of supervision and applied numerous teaching strategies. Rather than adhere to a fixed style of management, physiotherapy clinical educators matched their style of supervision and teaching strategies to their perception of the students' learning needs and the client's health care needs and these were undertaken within a framework of their therapeutic and legal responsibilities.



Five different types of supervision were evident in the physiotherapy clinical education observed in this study. Three of those modes aligned with Dent's (2005) description. These were the Grandstand, Sitting-In, and Supervising Models. In addition, there were two other models evident: The Educator Sitting-In and the Part Consultation Hand-Over Models. There was no apparent relationship between the model of supervision, the student to educator ratio, the role the student took in client-care and the academic year level of the student. However, there was an association between the type of supervision and the setting. There was no association between the model of supervisor and the client-centredness of the consultation, or the dialogue and feedback between the student and the educator. Thus the management of the education and health care scenario was dependent on the expertise of the educator.

It was discovered that there was a clear disparity between what the two groups reported regarding the timing of their discussions about episodes of client care. Briefing sessions: student mean = 3.2, educators = 4.0; discussion during the consultation: student mean = 3.0, educators = 3.4; and de-briefing sessions: student mean = 3.0, educators = 4.1. This indicates the educators' responses showed they believed they discussed client cases at particular intervals with far greater frequency than the students remembered. There appeared to be very little difference in this mismatch of perceptions across the four different clinical education settings.

The survey responses showed that students and educators did not agree on the frequency with which these topics about client care were discussed between them. Comparisons showed that the students, even in their wish-list of the ideal situation, required less discussion on most sub-items than what the educators' responses showed was the current status.

The topics discussed *most often* were: the symptomatology; current status of the client; salient features of the case history; strategies for assessment; the findings from diagnosis and assessment and the rationale for them: the technique/intervention selection and the rationale behind them and the implementation of the intervention. The topics discussed *less often* were: the student's experience with similar cases; what the client contributed to the discussion/care plan; the continuum of care and advice given to client for between visits and the rationale for the same; and the criteria to evaluate responses to care and the rationale for those criteria.

The observations showed that the topics discussed between the student and their educators during the observations were relatively consistent across all the scenarios

and showed a parallel with the students' survey report, confirming the students' but not the educators' survey responses. The topics discussed the least during the observations confirmed the inferences from the student survey that clinical educators were not exploring the students' deeper understanding and clinical reasoning in sufficient depth.

With regard to client-centred clinical practices, it was found that students and educators shared a universal understanding of the meaning of client-centred clinical practices. On a few occasions, even though educators and students believed they were acting in a client-centred manner, to the objective eye, there was no clear evidence to support their belief.

Exploring the client-centred nature of dialogue: the OAT captured client–student–educator dialogue concerning the clients' understanding of the health care event, their expectations of the treatment outcome, their agreement with the plan, what they should do if they were concerned about anything between consultations, how they were feeling and if they were in any pain. It was found that some of these issues were absent from their verbal exchanges on several occasions. This indicates that the full extent of the opportunity for the educator to role-model client-centred behaviour was not utilized on all occasions.

Clinical educators reported, and the observation of clinical education confirmed, that clients were 'often' or 'always' asked to give informed consent to student involvement in their health care.

Interviews with clients found that, in the main, they were satisfied that the clinical education events did meet their expectations and their health care needs. Clients had a positive attitude toward participation in physiotherapy clinical education events and they participated with a balanced sense of altruism and self-centeredness.

On some occasions clients edited the feedback they offered students with the idea that their genuine thoughts might negatively affect the students learning. If this is not checked in the normal course of management of clinical education, it is possible that students might develop a false sense of how their activities actually affect clients. The students may develop a false sense of their skills and abilities.

The study identified that contemporary physiotherapy clinical education strategies were underpinned by models of experiential teaching and learning, that the timing of educational events and the content of student-educator discussion varied between settings. Both students and educators considered that contemporary clinical education strategies provided opportunities for them to model their individual perceptions of client-centred care and their clients felt their needs were met. It was clear that physiotherapy clinical educators, students and their clients shared an aspiration that appropriate interactions during episodes of clinical education will result in personalised care and will provide each of them with optimal outcomes. In all instances it appeared clear that the client was the critical moderator of the nature and extent of meaningful learning that occurred about symptom management and professional communication.

Exploring *how* the student, client and educator interact and what the clients think of being involved in physiotherapy education is essential to understanding if this aspect of the curriculum is achieving its aims. Physiotherapy clients who participated in this study indicated that they participated in clinical education scenarios willingly. They do expect a standard of care equal to or better than that which they receive from a registered practitioner and this is consistent with the literature from other health disciplines.

Clients acted to assist the student's learning when they could and if they thought their feedback would benefit the student. The client actions appeared to be a balance between altruism and self-determination. This indicated the clinical education was client-centred as far as the clients were concerned. On the other hand, the student-centredness of contemporary clinical education practices has room for improvement. Although difficult to quantify, this ultimately has an impact on the extent of the client-centredness of the education, because if the students' education in relation to their care of clients is not attended to, then the client may potentially have a less than optimal standard of care.

On the whole, and most significantly, there was a lack of student and educator discussion during health care events and a lack of post consultation de-briefings. If such events are not recognised and amendments put in place, these issues will result in an ongoing loss of opportunity for students to learn as much as they can from what are increasingly rare placement events. This suggests a disparity with the points raised above about students' high regard for their educators' teaching characteristics and the quality of the feedback they receive from them. Students' high regard is in tension with the findings here that de-briefing sessions in particular were frequently overlooked. De-

briefing discussions are quite possibly the key times during which students will receive feedback on their work, thoughts and actions. So it appears that while students perceive they are receiving adequate feedback, there remains significant opportunity for improvement. A lack of regular de-briefing discussions is not only detrimental and costly to students' education, but it also suggests that current education strategies are not as focused on each individual client's care as they clearly strive to be. Omission of an exchange of ideas at these times is a potential threat to the client-centeredness of clinical education and might be also considered untherapeutic. Further, given that each episode of client care assists in the development of the students' knowledge of physiotherapy practice, a lack of dialogue on critical aspects of any case is inconsistent with the notion of student-centred education. A lack of discussion, particularly de-briefing discussion, has the potential to hinder the students' skills in reflective practice and, hence, their clinical reasoning. What the students are *learning* is untested. When topics are regularly omitted from student–educator discussion, there is potential for the student to function at a merely superficial, procedural level, without a deeper conceptual understanding of clinical practice. The students in this study largely regarded their clinical practicum experience to be satisfactory, whereas it appeared to be inadequate to the evaluators' eye, when weighing it against Kolb's (1984) model.

Analysis of the clinical educators' profile, taken from the clinical educators' responses to their survey, shows that ten (10) of the eighteen (18) clinical educators who worked in Public Hospitals reported that they had more than five-years clinical education experience. Sixteen (16) had undertaken some professional development related to clinical education, which largely constituted in-house meetings and workshops. Four (4) who worked in a Private Hospital setting had more than five years experience. Two of these had undertaken some professional development related to clinical education. In-house meetings and workshops were the most frequently cited professional development activity by this cohort. These findings raise questions as to the sufficiency of in-house meetings and workshops to provide adequate levels of professional development for clinical educators.

When clients are available to give the students their input and when educators have the entire clinical milieu to draw upon, there is the potential to greatly enhance students' development in clinical reasoning and reflective practice: to develop their clinical competence.

Clinical teaching focuses on an actual clinical scenario that, at times, cannot be pre-empted, nor can it be replicated. Kolb's original concept of experiential teaching and learning by experience does not take full account of the context of learning. Each clinical teaching, learning and care scenario is unique and each has three key participants: the student, client and educator. Clients can tend to be hesitant to give students feedback that they feel might be harsh to hear. That is, the feedback they give students has a positive tenor because, it seems, they think negative feedback might impede the students' learning. This is potentially problematic in that it may give the students a false impression of how their clinical skills affect the recipient of their care.

On the whole, it was clear that the core principles of student-centred education were evident to some degree in the clinical education scenarios that comprised this study, with some key elements overlooked. It is patently clear that the extent to which optimal outcomes are achieved for clients and students depends on the preparedness of clinical educators for their educative role. Future research needs to focus on the effect of clinical educators' participation in formal programs of professional development related to clinical education and, also, to consider an assessment of their readiness for their position. In addition, there is a need to strengthen the alignment between students' learning needs and educators' foci of discussion; to raise awareness of the importance of de-briefing as an opportunity for promoting deeper reflection on learning; to be more explicit about the active nature of the clients' role in the learning event; and to promote student–educator discussions about how the client can contribute to the management of their own care. Omission of such student–educator discussion undervalues the requirement for the client to assume particular levels of responsibility for their own care.

For the most part, the core principles of client-centred care were understood and applied in the education strategies. The clinical educators and physiotherapy students demonstrated their intent to work collaboratively with clients to adjust care and support so that it took cognisance of the clients' experience, needs and goals. Clinical educators and students applied these concepts so that the essential elements were recognisable to the client. It was found that there is a need to further develop concepts inherent in ethical reasoning that ensures safe practice within the provision of care by students. There is also a need to identify the extent to which the presence of the student during clinical interventions has an effect on client satisfaction with the therapeutic care provided. In all, an area that warrants further study is the centrality of

discussion about care involving all parties within the learning triad, student educator and client, and the way this has emerged as a central feature of clinical practice.

The desired outcomes of this study were to inform and enhance the management of undergraduate clinical education. To that end physiotherapy clinical education was explored. The desire was to make a contribution to the development of conceptual framework for clinical education strategies that maximise the potential of the available resources, stimulate debate that will lead to improving the effectiveness of clinical placements, contribute to evidence supporting the value of clinical placements to health professional education and to make recommendations to future researchers.

This investigation explored the students', clients' and educators' perception of their experience in clinical education along with their actions and interactions during teaching, learning and care events. Clearly, the clinical milieu is replete with competing demands, personalities, differing perspectives and resource constraints. Yet, teaching and learning in this setting provides a vital link in the development of students' skills so they become 'fit to practise'. To the clinical education setting, the student brings their unique learning styles and their own sources of motivation. Likewise, the educator has their perspective on what it is important to teach and manage. Their perspective of what can be managed in a particular teaching setting will underpin the nature of supervision of students' work.

As practice education is predominantly an experiential learning opportunity, models for practice education typically depict student and educator interaction and dialogue. Yet, in clinical education, a third person is present: the client! In order to fully explain what actually takes place in clinical education, the current experiential models need to be expanded to include the client. Kolb's Experiential Learning Cycle was selected for this study because it had universal applicability to all contexts. However, it typically guided the educator and student interactions in experiential learning situations.

In this study it was clear that the clinical educators had a definite agenda to be student-centred in their educational strategies. However, their good intentions could be better realized if they included more dialogue with students about the rationale for clinical decisions and reflection on practice. They did not build on the students' previous knowledge, thus forgoing opportunities to construct learning from prior experience. The findings from this study suggest that acquisition and utilization of deeper educational knowledge and processes, particularly around models and theories might enhance clinical education outcomes.

These shortcomings in the clinical education processes are not consistent with the completion of the full cycle of the experiential framework. What is needed is a framework that fully explains the deepest educative interrogation of learning events within the clinical environment. This interrogation needs to be informed by the interactions among the *three* members of the triad: the client, the educator and the student. It was not the intention of this research to design a framework for clinical education. Yet what emerged from the literature (Smith and Irby 1997; Ferencick et al., 1997; Guyatt and Nishikawa, 1993; Heidenreigh et al., 2000; Martin et al., 2004; Moore et al., 2003; Neher et al., 1992; Raiser et al., 2003; Ramani et al., 2003; Ramani, 2003; Roth, 1996), together with the findings from this study, was a 6-Step framework to guide clinical education that includes the client's voice. The 6-Step approach accommodates Kolb's original framework for experiential learning but nests it within the context and experiences of typical teaching and learning events in clinical situations involving actual client care, which acknowledges the client as a major contributor to the student's learning. Two critical aspects of this dynamic milieu demand particular recognition. These are: acknowledgement of the imperatives around engaging with the client and seeking client consent and; post-consultation evaluation of the client's view of their experience during the education event. When Kolb's framework is adapted in such a way to accommodate these critical aspects, the management of learning events and processes consists of the following steps:

- 1. Adoption of ethical principles — seeking client's informed consent** — seeking client consent for student involvement in their care as part of a learning event.
- 2. Briefing the student** — a preparation phase that ensures patient safety and assurance of support for the student.
- 3. Managing the consultation** — client, educator and student dialogue during the consultation, maintaining ethical principles for client care and student learning.
- 4. Evaluating outcomes** — assessing immediate outcomes to the satisfaction of the client and the student.
- 5. De-briefing** — educator and student exploratory, explanatory and reflective phase.

**6. Contemplation and research** — the student forms new concepts and principles derived from the scenario. They may supplement these conceptualizations with research, and take much of what they conceptualize to subsequent clinical events. However brief the discussions at those times, the framework makes explicit the ways in which the clinical educators identify the students' learning needs and the clients' progress and comfort. What is most important is not the length of such discussions. Rather, it is the educative nature of the 'moments' of discussion and the adherence to an ethical framework for practice. Even brief dialogue that takes place during client care in the complex milieu of the clinical practicum means that student actions and client safety can be checked and monitored. When there is sufficient time, the extent of the student's knowledge and their rationale for their thoughts and actions can be explored more fully. The 6-Step framework of learning through experience in clinical education is described below, as well as presented in Figure 9.

#### **Step 1. Seeking client's informed consent**

The literature is clear that client consent for health care treatment is mandatory. Furthermore, the client is entitled to know that the person involved in their care is a student (Kapp, 1983, 1984, 1984a; Kinsman, 2000; Klig, 2003; NSW Registration Board, 2010). Therefore, the inclusion of this step in the Learning from Experience Framework establishes the parameters of student involvement. It has the potential to engage the client more fully and this enhances the likelihood of 'value-adding' to the learning event.

#### **Step 2. Briefing the student**

During the preparation for the student to be involved in the care of a client, it is important for the clinical educator and student to discuss what they each know about the case. This involves sharing knowledge of the history and current status of the client and their health care problem. This also involves discussing the student's previous experience with similar cases to scaffold their knowledge. At this point, there can be discussion around potential sensitive or anxiety provoking issues. The role of the student in this particular episode of care and the activities they will undertake should be clarified.

#### **Step 3. Managing the consultation**

This is when the student has the 'concrete experience' (Kolb, 1984) of working with a client. The flow of dialogue in this step will depend on the model of supervision that is being used. Dialogue during a consultation offers the educator an opportunity to get an



update on the client's and student's needs. This is precisely when the match between the student's skills and the client's needs is best understood to avoid a mismatch occurring. A three way dialogue between the client, educator and student at this stage is designed to make sure that the initial plans for the student's involvement in the case is still appropriate.

A purposeful and loosely constructed moment of discussion, prompted by the educator with both the client and the student during the consultation, safeguards the vested interests of all participants in the clinical education triad. Should difficult circumstances arise, the educator and the student can withdraw for private discussions, thus limiting potential anxiety for both the student and the client.

#### **Step 4. Evaluation of the outcomes — seeking client's views**

At this stage the educator can confirm the outcome of a client–student consultation. The educator can explore how the client reacted to the particular intervention. Also, the educator is able to confirm the advice given to the client, and what they have been advised to do between visits. This step in the dialogue is also an opportunity to confirm that the client knows what action to take if they have any concerns about their progress. This step in the framework provides an opportunity for the educator to explore the client's satisfaction with the healthcare event. It is at this stage that the educator has an opportunity to seek feedback from the client that may be, at the educator's discretion, be brought to the attention of the student in Step 5.

The literature reported repeatedly that clients are well disposed to participating in clinical education if they feel empowered by a positive partnership with staff and students. Clients like to take an active role such as giving feedback. The literature is clear that many clients want to have a say about the management of their health concern whereas others might not. Either way, clients have a right to self-determination (McCormack and Corner, 2003; Weir, 2000). This step in the framework for experiential learning signals the respect for the client.

#### **Step 5. De-briefing: The explanatory, exploratory and guided reflection phase**

At an appropriate time, the rationale for clinical decisions needs to be explored more fully. These extended discussion items might include: the rationale for the diagnosis; assessment strategy; treatment/intervention; and criteria to evaluate response to care in the immediate term and in regard to the management plan overall. Also, the rationale for the continuum of care and advice for client between visits and the overall treatment plan needs to be explored and made explicit. These extended discussions, at the educator's discretion, can also include the feedback from the client. Further, it is

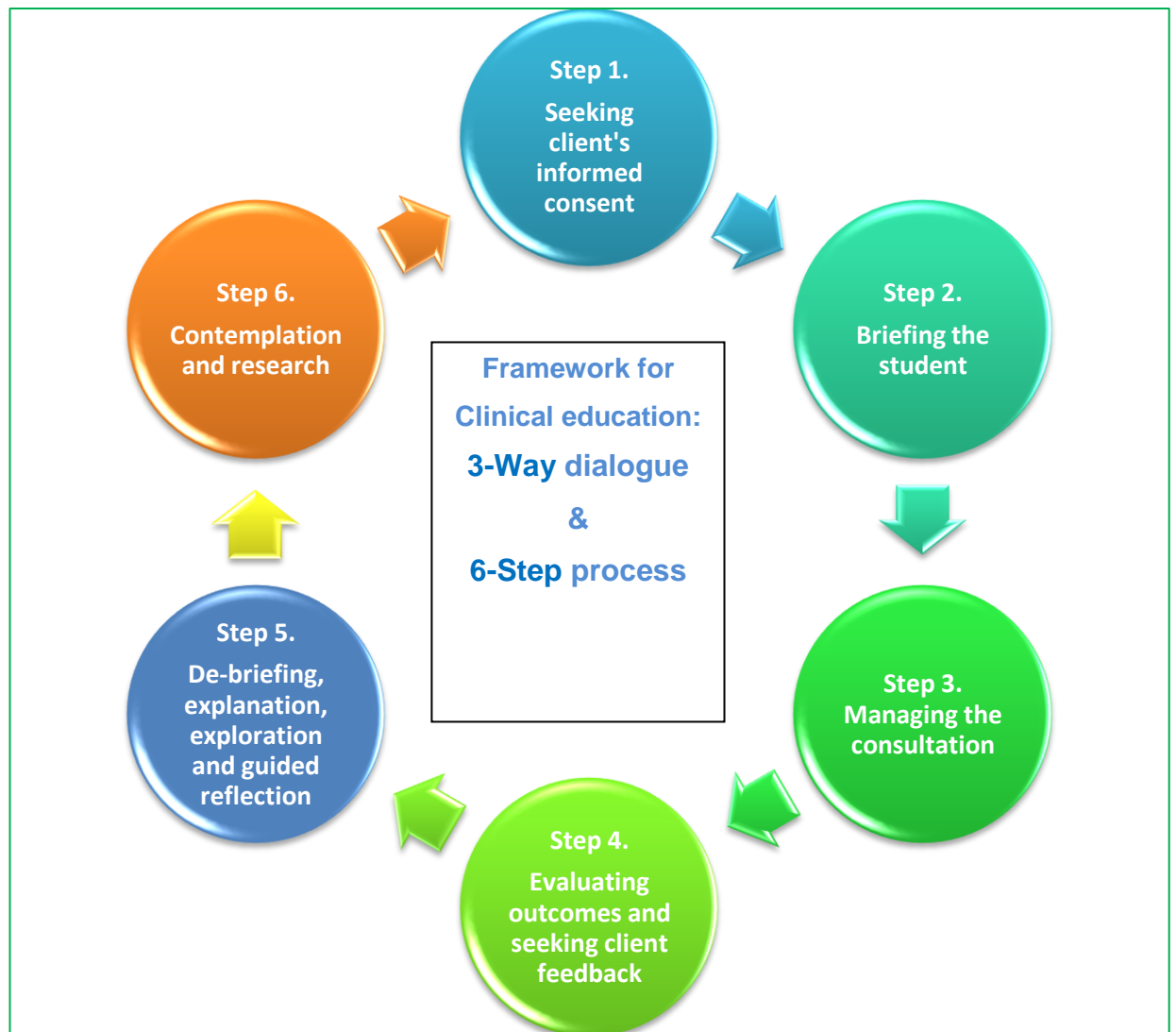
imperative for the student's continued development of reflection on practice that each case is explored for its similarities and differences with other cases.

### **Step 6. Contemplation and research**

This phase of the learning from experience cycle usually takes place between consultations. Inherently, the student will take something away from each episode of client care and add that to their developing schema in their clinical memory. They will form new concepts to test in new situations (Kolb, *ibid*). It is expected that health science students will develop the capacity to identify gaps in their knowledge and skills and either seek advice or undertake research to fill those gaps.

The aim of adopting the 6-Step cyclical framework is that it can be used to monitor student's thoughts, judgements and actions. An intentional educational strategy such as that described above extends the experiential framework of teaching and learning by acknowledging the third voice, that of the client. This then encourages thinking about clinical education from the perspective of *each* of the three members of the clinical education triad. In this way, the 6-Step framework contributes to both student-centred education and client-centred care.

Adapting an existing framework and making it into an extended 6-Step framework emanated directly from this research. This extended experiential framework enhances the likelihood of the student knowing how the recipient of their clinical care judges their clinical abilities. Knowing what the client thinks has the potential to add significant value and relevance to the student's experiential learning opportunity. Knowing what the client thinks will ensure that the student's reflection on their clinical practices encompasses all the stakeholders' views. This has the potential to maximise the efficiency and effectiveness of any clinical education event. In this way, Kolb's (1984) seminal work has the potential to have even greater impact on clinical education outcomes as well as clinical outcomes for the client.



(Adapted from Kolb, 1984 and Smith and Irby, 1997)

**Figure 9. Clinical Education: A 3-way dialogue and 6-Step framework**

## **Reflecting on the methodologies**

This study used mixed methods from the quantitative and the qualitative paradigms. The quantitative methods were used to capture a wide sample of representative perspectives of clinical education from educators and students that would not have been possible by using purely qualitative methods. These quantitative methods were also used to provide a foundational understanding of contemporary physiotherapy clinical education. The results from the quantitative data provided two things: first, together with the literature, they informed the approach to the qualitative data collection used in the observations and interviews; second, they generated a broad baseline of information about clinical education against which to critique actual real-time, in-situ educational events. The use of surveys proved to be straightforward, even though the on-line dissemination was problematic for students. Hard-copy, manual dissemination was the most successful method of recruiting students. On-line dissemination of the clinical educators' survey was more successful. On reflection, the use of the five-point Likert Scale proved an effective way to provide data for statistical analysis, as well as comparisons between educator and student responses. Open-ended questions asked of students generated insightful comments that may not have been possible in face to face interviews.

The OAT tool was derived from the literature, as was the survey above. It was a useful and efficient way to collect the fast-paced interactions during client, educator and student discussions. And, because of the confidentiality of the participants, it was better than using video or audio recordings. However, the OAT tool was less effective than expected in capturing the nature of the feedback given to the students by their educators, because there appeared to be limited value in capturing one-off scenarios of feedback. This is because, in any situation where a student is provided feedback, there are multiple and complex variables that ought to be taken into account before assessing the educational value of the feedback.

The qualitative interviews were intended to add much greater depth to the previous results and findings. They were extremely valuable in capturing the educators' and students' perspectives of the benefits of the immediately preceding events. However, because clients are typically less familiar with being interviewed about students' education, in the limited time available it was difficult to comprehensively explore their true perceptions. It is my view that using a mixed methods approach added to the comprehensiveness of the research that had not been achieved in previous research studies.

## **Limitations and delimitations of the study**

The study was confined to an investigation of clinical education in the physiotherapy program at one university, for practical and economic reasons. I was aware that not all students have the same learning style and that their individual preferences impact on their views of how clinical educators managed their practice education. I was also aware that each client had a different sense of self-determination which affected their level of participation in the consultation. The educators were also constrained by time and resources, therefore these samples of clinical education and healthcare events are idiosyncratic snapshots of practice. Even so, when the individual perspective provided by the qualitative data is added to, and critiqued against, the quantitative data, the result is an insight into actual practice that has not hitherto been revealed.

Notwithstanding these limitations, the study does suggest that a 6-Step framework for physiotherapy clinical education captures the voice of each member of the triad more accurately than previous published frameworks. This finding would not have been possible without the use of the mixed method approach.

## **Recommendations for future research**

As the study progressed, it became evident that there were areas that warranted further research with the use of different methodologies. Two key aspects in particular are discussed here. First, it is important to know why students might not automatically advise their clinical educator if they suspect an adverse clinical event is happening. To not do so has ethical and legal consequences. These findings in the study have significant connotations as they might reflect students' lack of insight into ethical practice around the issue of reporting adverse clinical events. Such a finding is in contradiction with the principles of client-centred care (Australian Commission on Safety and Quality in Health Care, 2008; Australian Physiotherapy Association, 2010; Australian Physiotherapy Council, 2006, 2009). This is an area that needs to be explored more closely in future research, using different research methodologies, such as retrospective narratives.

Second, given the variable nature of the *timing* and *content* of educator and student discussions about client care, and given that the educators in this study had only participated in informal, one day, professional education development, future research studies might explore the impact made if clinical educators were involved in more in-

depth, postgraduate level, professional development activities in clinical education. It would be more illuminative if in-depth interviews were made during and after a clinical event to see what impact educators' strategies had on students' learning in their practice settings. Future research needs to focus on the effect of clinical educators' participation in formal programs of professional development related to clinical education and also to consider an assessment of their readiness, perhaps via formal accreditation, for this role.

Finally, future research might explore, 'What are the other features of the interactions between clients, educators and students that contribute to, or distract from, client satisfaction?' These questions remain unanswered and might be the subject of future studies.

## **Conclusion**

This study has explored particular aspects of clinical education that have not been provided in previously published research. The study has highlighted the unique and dynamic nature of educating in clinical practice as opposed to the academic setting. It has highlighted the discrepancy in the viewpoints of the educators and students regarding the learning events. The inclusion of the client's voice in this study has brought a new dimension to clinical education research. Clients have not previously been given equal agency alongside students or educators in the literature. This inclusion has therefore also altered the perspective on the worth of the educational process, which is usually measured in terms of student satisfaction or the achievement of learning goals. Inclusion of the client's voice ensures a more accurate analysis of the value of any clinical education process.

## LIST OF REFERENCES

- Ajjawi, R., & Higgs, J. (2008). Learning to reason: A journey of professional socialisation. *Advances in Health Sciences Education*, 13, 133–150. doi:10.1007/s10459-006-9032-4.
- Andresen, L., Boud, D., & Cohen, R. (1995). Experience-based learning: Contemporary issues. In G. Foley (Ed.), *Understanding Adult Education and Training*. St. Leonards, NSW: Allen & Unwin.
- Atack, L., Comacu, M., Kenny, R., LaBelle, N., & Miller, D. (2000). Student and staff relationships in a clinical practice model: Impact on learning. *Journal of Nursing Education*, 39(9), 387–392.
- Australian Commission on Safety and Quality in Health Care (2008). Australian Charter of Healthcare Rights. Retrieved 30 March, 2010, from [http://www.health.gov.au/internet/safety/publishing.nsf/Content/com-pubs\\_ACHR-about/\\$File/17500-HealthCareguide.pdf](http://www.health.gov.au/internet/safety/publishing.nsf/Content/com-pubs_ACHR-about/$File/17500-HealthCareguide.pdf).
- Australian Council for Safety and Quality in Health Care (2005). National patient safety education framework. Retrieved 30 March, 2010, from [http://www.health.gov.au/internet/safety/publishing.nsf/Content/C06811AD746228E9CA2571C600835DBB/\\$File/framework0705.pdf](http://www.health.gov.au/internet/safety/publishing.nsf/Content/C06811AD746228E9CA2571C600835DBB/$File/framework0705.pdf)
- Australian Graduate (2010). Retrieved 30th March, 2010 from <http://www.australiangraduate.com/>
- Australian Physiotherapy Association (2010). Studying in Australia. Retrieved 24 March, 2010, from [http://www.australiangraduate.com/?physiotherapy\\_Education.htm](http://www.australiangraduate.com/?physiotherapy_Education.htm)
- Australian Physiotherapy Association (2006). *Annual report*. Retrieved 24 August, 2007, from [http://www.physiotherapy.asn.au/images/About\\_the\\_APA/Annual\\_Reports/2006\\_annualreport.pdf](http://www.physiotherapy.asn.au/images/About_the_APA/Annual_Reports/2006_annualreport.pdf)
- Australian Physiotherapy Council (2006). Australian Standards for Physiotherapy. Retrieved 18 March, 2009 from: [http://www.physiocouncil.com.au/file\\_folder/full\\_Australian\\_Standards\\_for\\_Physiotherapy/](http://www.physiocouncil.com.au/file_folder/full_Australian_Standards_for_Physiotherapy/)
- Australian Physiotherapy Council (2009). Australian Physiotherapy Council website. Retrieved 18 March, 2009, from <http://www.physiocouncil.com.au/>
- Bachelor of Physiotherapy clinical educators manual (2006). University of Newcastle, Faculty of Health.
- Baird, M., & Winter, J. (2005). Reflection, practice and clinical education. In M. Rose & D. Best (Eds.), *Transforming practice through clinical education, professional supervision and mentoring* (p.143). London: Elsevier.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*, Englewood Cliffs, NJ. Prentice-Hall.

- Barclay, D., McKinley, D., Peitzman, S., Burdick, B., Curtis, M., & Whelan, G. (2001). Effect of training location on students' clinical skills. *Academic Medicine*, 76(4), 384. doi:10.1097/00001888-200104000-00019
- Bell, K., Boshuizan, H., Scherpbier, A., & Doran, T. (2009). When only the real thing will do: Junior medical students' learning from real patients. *Medical Education*, 43, 1036–1043.
- Benjamin, S., & Hamdy, H. (1993). Physicians know how to be good educators too: A comparison of the patient problem solving process and the instructional design process. *Medical Teacher*, 15(2), 175–178. doi:10.3109/01421599309006711
- Bennett, R. (2003). Clinical education: Perceived abilities/qualities of clinical educators and team supervision of students. *Physiotherapy*, 89(7), 432–440. doi:10.1016/S0031-9406(05)60077-6
- Benor, D., & Leviyof, I. (1997). The development of students' perceptions of effective teaching: The ideal, best and poorest clinical teacher in nursing. *Journal of Nursing Education*, 36(5), 206–211.
- Bergman, K., & Gaitskill, T. (1990). Faculty and student perceptions of effective clinical teachers: An extension study. *Journal of Professional Nursing*, 6(1), 33–44. doi:10.1016/S8755-7223(05)80187-5.
- Best, D. (1988). Physiotherapy clinical supervision: Effectiveness and the use of models. *Australian Journal of Physiotherapy*, 34(4), 209–214.
- Black, R. (2005). Intersections of care: An analysis of culturally competent care, client-centered care and the feminist ethic of care. *Work*, 24(4), 409–422.
- Bleakley, A., & Bligh, J. (2008). Students learning from patients: Let's get real in medical education. *Advances in Health Sciences Education*, 13(1), 89–107. doi:10.1007/s10459-006-9028-0
- Boendermaker, P., Ket, P., Dusman, H., Schuling, J., van der Vleuten, C., & Tan, L. (2002). What influences the quality of educational encounters between trainer and trainee in vocational training for general practice? *Medical Teacher*, 24(5), 540–543. doi:10.1080/0142159021000012595
- Boud, D., & Edwards, H. (1999). Learning for practice: Promoting learning in clinical and community settings. In J. Higgs & H. Edwards (Eds.), *Educating beginning practitioners: Challenges for health professional education*, (pp. 173–179). Oxford: Butterworth & Heinemann.
- Bourke, L., & Russell, U. (2002). Consumer perspectives on consenting to medical student presence during medical consultations. *Focus on Health Professional Education*, 4(1), 50–53.
- Bruner, S. (1961). The act of discovery. *Harvard Educational Review*, 31, 21–32.
- Busari, J., Scherpbier, A., van der Vleuten, C., & Essed, G. (2000). Residents' perception of their role in teaching undergraduate students in the clinical setting. *Medical Teacher*, 22(4), 348–353. doi:10.1080/014215900409438



- Butters, J., & Strobe, J. (1996). Legal standards of conduct for students and residents: Implications for health professional educators. *Academic Medicine*, 71(6), 583–590. doi:10.1097/00001888-199606000-00008
- Carney, P., Eliassen, M., Pipas, C., Genereaux, S., & Nierenberg, D. (2004). Ambulatory care education: How do academic medical centres, affiliated residency teaching sites, and community-based practices compare? *Academic Medicine*, 79(1), 69–77.
- Chan, D. (2001). Development of an innovative tool to assess hospital learning environments. *Nurse Education Today*, 21(8), 624–631. doi:10.1054/nedt.2001.0595
- Chan, D. (2002). Development of the clinical learning environment inventory: Using the theoretical framework of learning environment studies to assess nursing students' perceptions of the hospital as a learning environment. *Journal of Nursing Education*, 41(2), 69–75.
- Chan, D. (2007). Perception of the hospital learning environment: A survey of Hong Kong nursing students. *Nurse Education Today*, 27, 677–684. doi:10.1016/j.nedt.2006.09.015
- Charles, C., & Mertler, C. (2002). Introduction to educational research. (4th ed.), Boston, MA: Allyn and Bacon.
- Chipchase, L., Galley, P., Jull, G., McMeeken, J., Refshuage, K., Nayler, M., & Wright, A. (2006). Looking back at 100 years of physiotherapy education in Australia. *Australian Journal of Physiotherapy*, 52, 3–7.
- Chipchase, L., Dalton, M., Williams, M., & Scutter, S. (2004). Is education immune from evidence-based scrutiny? *Australian Journal of Physiotherapy*, 50(3), 133–135.
- Chipp, E., Stoneley, S., & Cooper, K. (2004). The clinical teacher. Clinical placements for medical students: Factors affecting patients' involvement in medical education. *Medical Teacher*, 26(2), 114–119. doi:10.1080/01421590410001665636
- Chitsabesan, P., Corbett, S., Walker, L., Spencer, J., & Barton, J. (2006). Character reference: How learners want their teachers to behave. *The Clinical Teacher*, 3(3), 189–190. doi:10.1111/j.1743-498X.2006.00123\_1.x
- Christie, A., & Cross, V. (2003). Clinical specialisms: Patient empowerment or professional control? *British Journal of Therapy and Rehabilitation*, 10(3), 100–107.
- Chur-Hansen, A., & McLean, S. (2006). On being a supervisor: The importance of feedback and how to give it. *Australian Psychiatry*, 14(1).
- Conway, J., & McMillan, M. (2000). Maximising learning opportunities and preparing for professional practice. In J. Daly, S. Speedy & D. Jackson (eds.), *Context of nursing: An introduction*. Sydney: MacLennan & Petty.

- Cooke, M. (1996). Nursing students' perceptions of difficult or challenging clinical situations. *Journal of Advanced Nursing*, 24, 1281–1287. doi:10.1111/j.1365–2648.1996.tb01036.x
- Cooke, F., Galasko, G., Ramrakha, V., Richards, D., Rose, A., & Watkins, J. (1996). Medical students in general practice: How do patients feel? *British Journal of General Practice*, 46(407), 361–362.
- Cooper, L., Orrell, J., & Bowden, M. (2003). Workplace-learning management manual. A guide for establishing and managing university work-integrated learning courses, practical, field education and clinical education, Australia: Flinders University Staff Development and Training Unit.
- Cottrell, D., Kilminster, S., Jolly, B., & Grant, J. (2002). What is effective supervision and how does it happen? A critical incident study. *Medical Education*, 36(11), 1042–1049. doi:10.1046/j.1365-2923.2002.01327.x
- Council of Australian Governments (2008). *Intergovernmental agreement for a national registration and accreditation scheme for health professionals*. Retrieved 23 March, 2010 from <http://www.nhwt.gov.au/natreg.asp>
- Cox, K. (1990). Learning within practice. *Medical Journal of Australia*, 152(11), 565–567.
- Cross, V. (1995). Perceptions of the ideal clinical educator in physiotherapy education. *Physiotherapy*, 81(9), 506–513. doi:10.1016/S0031-9406(05)66680-1
- Crotty, M. (1998). The foundations of social research: Meaning and perspective in the *research process*. St Leonards, NSW: Allen & Unwin.
- Crotty, B. (2005). More students and less patients: The squeeze on medical teaching resources. *The Medical Journal of Australia*, 7(9), 444–445.
- Currens, J. (2003). The 2:1 clinical placement model: Review. *Physiotherapy*, 89(9), 540–554. doi:10.1016/S0031-9406(05)60180-0
- Currens, J., & Bithell, C. (2000). Clinical education: Listening to different perspectives. *Physiotherapy*, 86(12), 645–653. doi:10.1016/S0031-9406(05)61302-8
- Daelmans, H., Hoogenboom, R., Donker, A., Scherpbier, A., Stehouwer, C., & van der Vleuten, C. (2004). Effectiveness of clinical rotations as a learning environment for achieving competences. *Medical Teacher*, 26(4), 305–312. doi:10.1080/01421590410001683195
- Dahlgren, M. (1998). Learning physiotherapy: Students' ways of experiencing the patient encounter. *Physiotherapy Research International*, 3(4), 257–273. doi:10.1002/pri.149
- Dalley, J. (1999). Evaluation of clinical practice: Is a client-centred approach compatible with professional issues? *Physiotherapy*, 85(9), 491–497. doi:10.1016/S0031-9406(05)65474-0
- Davis, P. (2000). Approaches to evidence-based teaching. *Medical Teacher*, 22(1), 14–21. doi:10.1080/01421590078751

- DeClute, J., & Ladyshevsky, R. (1993). Enhancing clinical competence using a collaborative clinical education model. *Physical Therapy*, 73(10), 683–689.
- Delany, C. (2007). In private practice, informed consent is interpreted as providing explanations rather than offering choices: A qualitative study. *Australian Journal of Physiotherapy*, 53, 171–177.
- Dent, J. (2005). Clinical teaching in ambulatory care settings: Making the most of learning opportunities with outpatients. *Medical Teacher*, 27(4), 302–315. doi:10.1080/01421590500150999
- Denzin, N. (2009). Interpretive research after 9/11/01. In *Qualitative inquiry under fire*, (pp. 25–38). California, USA: Left Coast Press Incorporated.
- Devera-Sales, A., Paden, C., & Vinson, D. (1999). What do family medicine patients think about medical students' participation in their health care? *Academic Medicine*, 74(5), 550–552. doi:10.1097/00001888-99905000-00024
- Dewey, J. (1910). *How we think*. Boston, D.C. Heath, Republished 1997. Dover Publications, New York.
- Doubt, L., Paterson, M., & O'Riordan, A. (2004). Clinical education in private practice: An interdisciplinary project. *The Journal of Allied Health*, 33(1), 47–50.
- Dunn, S. (1993). Clinical decision making: A primer for preceptors. *Australian Critical Care*, 6(2), 20–23. doi:10.1016/S1036-7314(93)70107-1
- Dunn, S., & Hansford, B. (1997). Undergraduate nursing students' perceptions of their clinical learning environment. *Journal of Advanced Nursing*, 25(6), 1299–1306. doi:10.1111/j.1365-2648.1997.tb00655.x
- Dunn, D., & Saintonge, D. (1997). Experiential learning. *Medical Education*, 31(s1), 25–28. doi:10.1111/j.1365-2923.1997.tb02583.x
- Edwards, H., Best, D., & Rose, M. (2005). Understanding clinical knowledge and developing clinical expertise. In M. Rose & D. Best (Eds.), *Transforming practice through clinical education, professional supervision and mentoring* (pp. 89–101). London: Elsevier.
- Edwards, I., Jones, M., Higgs, J., Trede, F., & Jensen, G. (2004). What is collaborative reasoning? *Advances in Physiotherapy*, 6(2), 70–83. doi:10.1080/14038190410018938
- Engle, G. (1978). The biopsychosocial model and the education of health professionals. [23rd Cartwright Lecture, Columbia University College of Physicians and Surgeons]. *Annals of the New York Academy of Sciences*, 310, 169–187.
- Ernstzen, D., Bitzer, E., & Grimmer-Somers, K. (2009). Physiotherapy students' and clinical teachers' perceptions of clinical learning opportunities: A case study. *Medical Teacher*, 31, e102-e115. doi: 10.1080/01421590802512870

- Farlex (2009). *The free dictionary by Farlex*, from <http://legal-dictionary.thefreedictionary.com/Vicariously+liable>
- Ferenchick, G., Simpson, D., Blackman, J., DaRosa, D., & Dunnington, G. (1997). Strategies for efficient and effective teaching in the ambulatory care setting. *Academic Medicine*, 72(4), 277–280. doi:10.1097/00001888-99704000-00011
- Finucane, P., Crotty, M., & Henschke, P. (2001). Clinical problem solving as a teaching strategy: a 'dual teacher' approach. *Medical Teacher*, 23 (3), 572–575.
- Flocke, S., Miller, W., & Crabtree, B. (2002). Relationships between physician practice style, patient satisfaction and attributes of primary care. *Journal of Family Practice*, 51(10), 835–840.
- Fontaine, S., & Pullon, S. (2000). Teaching medical students in the one-to-one clinical setting: Preceptor perceptions about the quality of the teaching process. *Focus on Health Professional Education*, 2(3), 1–10.
- Freeth, D., Reeves, S., Goreham, C., Parker, P., Haynes, S., & Pearson, S. (2001). 'Real life' clinical learning on an interprofessional training ward. *Nurse Education Today*, 21(5), 366–372. doi:10.1054/nedt.2001.0567
- Fry, H., Ketteridge, S., & Marshall, S. (2005). *A handbook for teaching and learning in higher education: Enhancing academic practice* (2nd ed.). New York; London: Routledge.
- Gibson, D., & Campbell, R. (2000). Promoting effective teaching and learning: Hospital consultants identify their needs. *Medical Education*, 34(2), 126–130. doi:10.1046/j.1365-2923.2000.00472.x
- Greenberg, P., Walker, C., & Buchbinder, R. (2006). Optimising communication between consumers and clinicians. *The Medical Journal of Australia*, 185(5), 245–247.
- Griffith, C., Wilson, J., Haist, S., & Ramsbottom-Lucier, M. (1997). Relationships of how well attending physicians teach to their students' performances and residency choices. *Academic Medicine*, 72(10), S118–120. doi:10.1097/00001888-199710001-00040
- Griffiths, Y., & Ursick, K. (2004). Using active learning to shift the habits of learning in health care education. *The Internet Journal of Allied Health Sciences and Practice*, 2(2). Retrieved from <http://www.nova.edu/cwis/centers/hpd/allied-health/journal/articles/Vol2num2/Griffiths%20-%20Active.htm>
- Guyatt, G., & Nishikawa, J. (1993). A proposal for enhancing the quality of clinical teaching: Results of a department of medicine's educational retreat. *Medical Teacher*, 15(2/3), 147–161. doi:10.3109/01421599309006708
- Haffling, A., & Hånansson, A. (2008). Patients consulting with students in general practice: Survey of patients' satisfaction and their role in teaching. *Medical Teacher*, 30, 622–629. doi: 10.1080/1421590802043827.

- Haidet, P., Dains, J., Paterniti, D., Hechtel, L., Chang, T., Tseng, E., et al. (2002). Medical student attitudes toward the doctor–patient relationship. *Medical Education*, 36(6), 568–574. doi:10.1046/j.1365-2923.2002.01233.x
- Haidet, P., Kelly, A., Bentley, S., Blatt, B., Chou, C., Fortin, A., et al. (2006). Not the same everywhere: Patient-centered learning environments at nine medical schools. *The Journal of General Internal Medicine*, 21(5), 405–409. doi:10.1111/j.1525-1497.2006.00417.x
- Harden, R., & Crosby, J. (2000). The good teacher is more than a lecturer — the twelve roles of the teacher. *Medical Teacher*, 22(4), 334–347. doi:10.1080/014215900409429
- Harth, S., Bavanandan, S., Thomas, K., Lai, M., & Thong, Y. (1992). The quality of student–tutor interactions in the clinical learning environment. *Medical Education*, 26(4), 321–326. doi:10.1111/j.1365-2923.1992.tb00176.x
- Hawtrey, K. (2007). Using experiential learning techniques. *The Journal of Economic Education* 38(2), 143–152. doi:10.3200/JECE.38.2.143-152
- Hebert, R., & Wright, S. (2003). Re-examining the value of medical grand rounds. *Academic Medicine*, 78(12), 1248–1252. doi:10.1097/00001888-200312000-00013
- Harris, D. & Naylor, S. (1992). Case study: Learner physiotherapists' perceptions of clinical education. *Educational Training and Technical International*, 29, 124-31.
- Hart, G., & Rotem, A. (1994). The best and the worst: students' experiences of clinical education. *The Australian Journal of Advanced Nursing*. 11(3), 26–33.
- Heidenreich, C., Lye, P., Simpson, D., & Louch, M. (2000). Educating child health professionals: The search for effective and efficient ambulatory teaching methods through the literature. *Pediatrics*, 105(1), 231–237.
- Henderson, A., Heel, A., Twentyman, M., & Lloyd, B. (2006). Pre-test and post-test evaluation of students' perceptions of a collaborative clinical education model on the learning environment. *The Australian Journal of Advanced Nursing*, 23(4), 8–13. Retrieved from <http://www.ajan.com.au/Vol23/Vol23.4-1.pdf>
- Hendry, R., Kawai, G., Moody, W., Sheppard, J., Smith, L., Richardson, M., et al. (2006). Bottom of the class — where trusts and medical schools rate our teaching, say consultants. *The Clinical Teacher*, 3(2), 76–77. doi:10.1111/j.1743-498X.2006.00102\_2.x
- Hesketh, E., Bagnall, E., Buckley, G., Friedman, M., Goodall, E., Harden, R., et al. (2001). A framework for developing excellence as a clinical educator. *Medical Education*, 35(6), 555–564. doi:10.1046/j.1365-2923.2001.00920.x
- Higgs, J. (1992). Managing clinical education: The educator–manager and the self-directed learner. *Physiotherapy*, 78(11), 822–828.
- Higgs, J., & Jones M. (Eds.) (1995). *Clinical reasoning in the health professions*. Oxford: Butterworth & Heinemann.

- Higgs, J., & Edwards, H. (1999). Educating beginning practitioners: Challenges for health professional education. Oxford: Butterworth & Heinemann.
- Higgs, J., Glendenning, M., Dunsford, F., & Panter, J. (1991). *Goals and components of clinical education in allied health professions*. Paper presented at the 11th World Conference for Physical Therapy.
- Higgs, J., & McAllister, L. (2007). Educating clinical educators: Using a model of the experience of being a clinical educator. *Medical Teacher*, 29, e51-e57. doi:10.1080/01421590601046088
- Higgs, J., Refshauge, K., & Ellis, E. (2001). Portrait of the physiotherapy profession. *Journal of Interprofessional Care*, 15(1), 79–89. doi:10.1080/13561820020022891
- Howe, A., & Anderson, J. (2003). Involving patients in medical education. *The British Medical Journal* 327(7410), 326–328. doi:10.1136/bmj.327.7410.326
- Howley, L., & Wilson, W. (2004). Direct observation of students during clerkship rotations: A multiyear descriptive study. *Academic Medicine*, 79(3), 276–280. doi:10.1097/00001888-200403000-00017
- Hummell, J. (1997). Effective fieldwork supervision: Occupational therapy student perspectives. *The Australian Occupational Therapy Journal* 44, 147–157.
- Irby, D. M. (1986). Clinical teaching and the clinical teacher. *Journal of Medical Education*, 61(9), 35–45.
- Irby, D. (1994). Three exemplary models of case-based teaching. *Academic Medicine*, 69(12), 947–953. doi:10.1097/00001888-199412000-00003
- Jackson, J., O'Malley, P., Salerno, S., & Kroenke, K. (2002). The teacher and learner interactive assessment system (TeLIAS): A new tool to assess teaching behaviours in the ambulatory setting. *Teaching and Learning in Medicine*, 14(4), 249–256. doi:10.1207/S15328015TLM1404\_9
- James, G. (2001). Clinical reasoning in novices: Refining a research question. *British Journal of Therapy and Rehabilitation*, 8(8), 286–293.
- Jarski, R., Kulig, K., & Olson, R. (1990). Clinical teaching in physical therapy: Student and teacher perceptions. *Physical Therapy*, 70(3), 173–176.
- Jolly, B. (1999). Clinical logbooks: Recording clinical experiences may not be enough. *Medical Education*, 33(2), 86–88.
- Jones, S., Oswald, N., Date, J., & Hinds, D. (1996). Attitudes of patients to medical student participation: General practice consultations on the Cambridge community-based clinical course. *Medical Education*, 30(1), 14–17. doi:10.1111/j.1365-2923.1996.tb00711.x
- Jones, M., Grimmer, K., Edwards, I., Higgs, J., & Trede, F. (2006). Challenges in applying best evidence to physiotherapy practice: Part 2 – Health and clinical reasoning models to facilitate evidence-based practice. *The Internet Journal of Allied Health Sciences and Practice*, 4(4), 1–9.

- Jones, M., Jensen, G., & Edwards, I. (2000). Clinical reasoning in physiotherapy. In J. Higgs & M. Jones (Eds.), *Clinical reasoning in the health professions* (pp. 117–127). Oxford: Butterworth-Heinemann.
- Kapp, M. (1983). Legal implications of clinical supervision of medical students and residents. *Academic Medicine*, 58(4), 293–299. doi:10.1097/00001888-198304000-00001
- Kapp, M. (1984). Nursing homes as teaching institutions: Legal issues. *Gerontologist*, 24(1), 55–60.
- Kapp, M. (1984a). Supervising professional trainees: Legal implications for mental health institutions and practitioners. *Hospital and Community Psychiatry*, 35(2), 143–147.
- Kaufman, M., Mann, K., & Jennett, P. (2000). Teaching and learning in medical education: How theory can inform practice. *Occasional Paper: The Association for the Study of Medical Education, Edinburgh, Scotland*.
- Kernan, W., & O'Connor, P. (1997). Site accommodations and preceptor behaviours valued by 3rd year students in ambulatory internal medicine clerkships. *Teaching and Learning in Medicine*, 9(2), 96–102.
- Kilminster, S., & Jolly, B. (2000). Effective supervision in clinical practice settings: A literature review. *Medical Education*, 34(10), 827–840. doi:10.1046/j.1365-2923.2000.00758.x
- Kilminster, S., Cottrell, D., Grant, J., & Jolly, B. (2007). AMEE Guide No. 27: Effective educational and clinical supervision. *Medical Teacher*, 29(1), 2–19. doi:10.1080/01421590701210907
- Kinsman, J. (2000). Malpractice liability in health professional education. *Radiological Technology*, 71(3), 239–246.
- Kleehammer, K., & Keck, J. (1990). Nursing students' perceptions of anxiety-producing situations in the clinical setting. *Journal of Nursing Education*, 29(4), 183–187.
- Klig, J. (2003). The legal implications of physician trainees and non-physician practitioners for the emergency physician. *Clinical Paediatric Emergency Medicine*, 4(4), 243–248. doi:10.1016/j.cpem.2003.09.001
- Kneebone, R., Kidd, J., Nestel, D., Asvall, S., Paraskeva, P., & Darzi, A. (2002). An innovative model for teaching and learning clinical procedures. *Medical Education*, 36(7), 628–634. doi:10.1046/j.1365-2923.2002.01261.x
- Knowles, M., Elwood, F., & Swanson, R. (1978). The adult learner. The definitive classic adult education and human resource development. (6th Ed.), London: Elsevier.
- Knox, J., & Mogan, J. (1985). Important clinical teacher behaviours as perceived by university, nursing, faculty, students and graduates. *Journal of Advanced Nursing*, 10, 25–30.

- Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. New Jersey: Prentice-Hall.
- Kotzabassaki, S., Panou, M., Dimou, F., Karabagli, A., Koutsopoulou, B., & Ikononou, U. (1997). Nursing students' and faculty's' perceptions of the characteristics of 'best' and 'worst' clinical teachers: A replication study. *Journal of Advanced Nursing*, 26(4), 817–824. doi:10.1111/j.1365-2648.1997.tb00763.x
- Krefting, L. (1990). Rigor in qualitative research: The assessment of trustworthiness. *The American Journal of Occupational Therapy*, 45(3), 214–22.
- Krupat, E., Yeager, C., & Putnam, S. (2000). Patient role orientations, doctor–patient fit and visit satisfaction. *Psychology and Health*, 15(5), 707–719. doi:10.1080/08870440008405481
- Kuan, S. (2007). Medical students in the emergency department: How do patients view participation in clinical teaching. *Irish Medical Journal* 100(8). Retrieved from [http://www.imj.ie/Issue\\_detail.aspx?issueid=+&pid=2498&type=Papers](http://www.imj.ie/Issue_detail.aspx?issueid=+&pid=2498&type=Papers)
- Kurth, R., Irigoyen, M., & Schmidt, H. (1997). A model to structure student learning in ambulatory care settings. *Academic Medicine*, 72(7), 601–606. doi:10.1097/00001888-199707000-00012
- Laitinen-Väänänen, S., & Luukka, M. (2008). Construction of the client in physiotherapy students' practical learning sessions: A discourse analytic study. *Learning in Health and Social Care* 7(1), 2–11. doi:10.1111/j.1473-6861.2008.00172.x
- Landridge, M., & Hauck, Y. (1998). Perceptions of clinical role modelling: An exploration of nursing students' experiential learning. *Collegian*, 5(4), 22–26.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*, Cambridge: Cambridge University Press.
- Levinson, W., Kao, A., Kuby, A., & Thisted, R. (2005). Not all patients want to participate in decision making. *The Journal of General Internal Medicine*, 20(6), 531–535. doi:10.1111/j.1525-1497.2005.04101.x
- Lipman, T., & Deatrick, J. (1997). Preparing advanced practice nurses for clinical decision making in specialty practice. *Nurse Educator*, 22(2), 47–50. doi:10.1097/00006223-199703000-00018
- Lipsky, M., Taylor, C., & Schnuth, R. (1999). Microskills for students: Twelve tips for improving learning in the ambulatory setting. *Medical Teacher*, 21(5), 469–472. doi:10.1080/01421599979130
- Lynöe, N., Sandlund, M., Westberg, K., & Duchek, D. (1998). Informed consent in clinical training — patient experiences and motives for participating. *Medical Education*, 32(5), 465–471. doi:10.1046/j.1365-2923.1998.00237



- Mackenzie, L. (2001). Meeting the educational needs of fieldwork supervisors: A collaborative workshop developed by New South Wales occupational therapy fieldwork coordinators. *Australian Occupational Therapy Journal*, 48(1), 1–9. doi:10.1046/j.1440-1630.2001.00233.x
- Macnamara, L. (2007). Physio students between rock and hard place. Budget 07 — Education and Training. *The Australian*, Retrieved from <http://proquest.umi.com/pqdweb?did=1267169111&sid=2&Fmt=3&clientId=8429&RQT=309&VName=PQD>
- Makoul, G. (2001). Essential elements of communication in medical encounters: The kalamazoo consensus statement. *Academic Medicine*, 76(4), 390–393. doi:10.1097/00001888-200104000-00021
- Mandy, S. (1989). Facilitating student learning in clinical education. *Australian Journal of Human Communication Disorders*, 17(1), 83–93.
- Martin, M., Morris, J., Moore, A., Sadlo, G., & Crouch, V. (2004). Evaluating practice education models in occupational therapy: Comparing 1:1, 2:1 and 3:1 placements. *The British Journal of Occupational Therapy*, 67(5), 192–200.
- Massarweh, L. (1999). Promoting a positive clinical experience. *Nurse Educator*, 24(3), 44–47. doi:10.1097/00006223-199905000-00016
- Mattingly, C. (1991). What is clinical reasoning? *The American Journal of Occupational Therapy*, 45(11), 979–986.
- Mattingly, C. (1991a). The narrative nature of clinical reasoning. *The American Journal of Occupational Therapy*, 45(11), 998–1005.
- Mawdsley, R., & Cumming, J. (2008). Educational malpractice and setting damages for ineffective teaching: A comparison of legal principles in the USA, England and Australia. *Education and the Law*, 20(1), 25–46. doi:10.1080/09539960802114344
- McAllister, M., & Moyle, W. (2006). Stakeholders' views in relation to curriculum development approaches for Australian clinical educators. *The Australian Journal of Advanced Nursing*, 24(2), 16–20.
- McCarthy, B. (2006). Translating person-centred care: A case study of preceptor nurses and their teaching practices in acute care areas. *Journal of Clinical Nursing*, 15(5), 629–638. doi:10.1111/j.1365-2702.2006.01366.x
- McCormack, B. (2003). A conceptual framework for person-centred practice with older people. *International Journal of Nursing Practice*, 9(3), 202–209. doi:10.1046/j.1440-172X.2003.004
- McCormack, B., & Corner, J. (2003). Learning together — caring together. *Health Education Journal*, 62(3), 195–197. doi:10.1177/001789690306200301
- McLeod, P., Meagher, T., & Tamblyn, R. (1999). How good is the ambulatory care clinic for learning clinical skills? Students' and residents' perceptions differ. *Medical Teacher*, 21(3), 315–317. doi:10.1080/01421599979617

- McMeeken, J. (2008). Physiotherapy education — what are the costs? *Australian Journal of Physiotherapy*, 54, 85–86.
- Meyers, S. (1995). Exploring the costs and benefits drivers of clinical education. *The American Journal of Occupational Therapy*, 49(2), 107–111.
- Minichiello, V., Sullivan, G., Greenwood, K., & Axford, R. (1999). *Handbook for research methods in health sciences*. Sydney: Pearson Education.
- Modic, M., & Harris, R. (2007). Masterful precepting. *Journal for Nurses in Staff Development*, 23(1), 1–9. doi:10.1097/00124645-200701000-
- Mogan, J., & Knox, J. (1987). Characteristics of 'best' and 'worst' clinical teachers as perceived by university nursing faculty and students. *Journal of Advanced Nursing*, 12(3), 331–337. doi:10.1111/j.1365-2648.1987.tb01339.x
- Mogan, J., & Warbinek, E. (1994). Teaching behaviours of clinical instructors: An audit instrument. *Journal of Advanced Nursing*, 20(1), 160–166. doi:10.1111/j.1365-2648.1994.tb02336.x
- Moir, F. (2003). An exploration of clinical teaching using a reflective method with adult students. *The Journal of Alternative and Complementary Medicine*, 9(5), 789–793. doi:10.1089/107555303322524661
- Molloy, E., & Clarke, D. (2005). The positioning of physiotherapy students and clinical supervisors in feedback sessions. *Focus on Health Professional Education*, 7(1), 79–90.
- Monekosso, G. (1998). Essential medical studies: Introducing a core curriculum based on the doctor–patient encounter as a catalyst for medical education reform. *Medical Teacher*, 20(6), 536–543. doi:10.1080/01421599880247
- Moore, A., Morris, J., Crouch, V., & Martin, M. (2003). Evaluation of physiotherapy clinical educational models: Comparing 1:1, 2:1 and 3:1 placements. *Physiotherapy*, 89(8), 489–501. doi:10.1016/S0031-9406(05)60007-7
- Morris, J., & Leonard, R. (2007). Physiotherapy students' experiences of palliative care placements: Promoting interprofessional learning and patient-centred approaches. *Journal of Interprofessional Care*, 21(5), 569–571. doi:10.1080/13561820701324662
- Morris, J., & Stew, G. (2007). Collaborative reflection: How far do 2:1 models of learning in the practice setting promote peer reflection? *Reflective Practice*, 8(30), 419–432. doi: 10.1080/14623940701425220.
- Mulholland, S., Derald, M., & Roy, B. (2006). The student's perspectives on what makes an exceptional practice placement educator. *The British Journal of Occupational Therapy*, 69(12), 567–571.
- Murtagh, J. (1997). *General practice*. Sydney: McGraw-Hill.

- Myers, K. (2001). Evaluating clinical teachers: Does the learning environment matter? *Academic Medicine*, 76(3), 286. doi:10.1097/00001888-200103000-00021
- Neher, J., Gordon, K., Meyer, B., & Stevens, N. (1992). A five-Step "Microskills" model of clinical teaching. *Journal of American Board of Family Practice*, 5(4), 419–424.
- Nehring, V. (1990). Nursing clinical teacher effectiveness inventory: A replication study of the characteristics of 'best' and 'worst' clinical teachers as perceived by nursing faculty and students. *Journal of Advanced Nursing*, 15(8), 934–940. doi:10.1111/j.1365-2648.1990.tb01949.x
- Neistadt, M. (1996). Teaching strategies for the development of clinical reasoning. *The American Journal of Occupational Therapy*, 50(8), 676–684.
- New South Wales Physiotherapy Registration Board, 2010, *About the Board*, Retrieved 23 March, 2010 from [http://www.physioreg.health.nsw.gov.au/physio\\_about.htm](http://www.physioreg.health.nsw.gov.au/physio_about.htm)
- Notzer, N., & Abramovitz, R. (2007). Can brief workshops improve clinical instruction? *Medical Education*, 42(2), 152–156. doi:10.1111/j.1365-2923.2007.02947.x
- O'Flynn, N., Spencer, J., & Jones, R. (1999). Does teaching during a general practice consultation affect patient care? *The British Journal of General Practice*, 49(438), 7–9.
- O'Malley, P., Omori, D., Landry, F., Jackson, J., & Krvenke, K. (1997). A prospective study to assess the effect of ambulatory teaching on patient satisfaction. *Academic Medicine*, 72(11), 1015–1017.
- O'Sullivan, M., Martin, J., & Murray, E. (2000). Students' perceptions of the relative advantages and disadvantages of community-based and hospital-based teaching: A qualitative study. *Medical Education*, 34(8), 648–655. doi:10.1046/j.1365-2923.2000.00623.x
- Patton, M. (2002). *Qualitative research and evaluation methods* (3rd ed.). California, USA: Sage Publications.
- Piaget, J. (1953). *The origin of intelligence in the child*. (English translation, 1st Ed.), London: Routledge & Kegan Paul Ltd. (Reprinted 1997, 2000, 2001 London: Routledge.)
- Platt, F., & Gaspar, D. (2001). Tell me about yourself: The patient-centered interview. *Annals of Internal Medicine* 134(11), 1079–1085.
- Potter, M., Gordon, S., & Hamer, P. (2003). The physiotherapy experience in private practice: The patients' perspective. *Australian Journal of Physiotherapy*, 49(3), 195–202.
- Price, D., & Mitchell, C. (1993). A model for clinical teaching and learning. *Medical Education*, 27(1), 62–68. doi:10.1111/j.1365-2923.1993.tb00230.x

- Prideaux, D., Alexander, H., Bower, A., Dacre, J., Haist, S., Jolly, B., et al. (2000). Clinical teaching: Maintaining an educational role for doctors in the new health care environment. *Medical Education*, 34(10), 820–826. doi:10.1046/j.1365-2923.2000.00756.x
- Pugsley, L., & McCrorie, P. (2007). Improving medical education: Improving patient care. *Teaching and Teacher Education*, 23(3), 314–322. doi:10.1016/j.tate.2006.12.023
- Raiser, J., O'Grady, M., & Lori, J. (2003). Clinical teaching and learning in midwifery and women's health. *Journal of Midwifery and Women's Health*, 48(6).
- Ramani, S., & Leinster, S. (2008). AMEE Guide no 34: Teaching in the Clinical Environment. *Medical Teacher*, 30(4) 347–364. doi: 10.1080/01421590802061613.
- Ramani, S., Orlander, J., Strunin, L., & Barber, T. (2003). Whither bedside teaching? A focus-group study of clinical teachers. *Academic Medicine*, 78(4), 384–390. doi:10.1097/00001888-200304000-00014
- Ramani, S. (2003). Twelve tips to improve bedside teaching. *Medical Teacher*, 25(2), 112–115. doi:10.1080/0142159031000092463
- Remedios, L., & Webb, G. (2005). Clinical educators as cultural guides In M. Rose & D. Best (Eds.), *Transforming practice through clinical education, professional supervision and mentoring* (pp. 207–218). London: Elsevier.
- Remmen, R. (1998). Unsatisfactory basic skills performance by students in traditional medical curricula. *Medical Teacher*, 20(6), 579–582. doi:10.1080/01421599880328
- Robertson, A., Gibbons, P., & Carter, A. (2002). Student and patient perspectives on the interaction between supervisors, students and patients during the clinical teaching experience at a university out-patient clinic: A descriptive pilot study. *Journal of Osteopathic Medicine*, 5(1), 8–15. doi:10.1016/S1443-8461(02)80029-6
- Roche, J. (2002). A pilot study of teaching clinical decision making with the clinical educator model. *Career and Technical Education*, 41(8), 365–367.
- Rodger, S., Webb, G., Devitt, L., Gilbert, J., Wrightson, P., & McMeeken, J. (2008). Clinical education and practice placements in the allied health professions: An international perspective. *Journal of Allied Health*, 37(1), 53–62.
- Rogers, C. (1957). The necessary and sufficient conditions for therapeutic personality change. *Journal of Consulting and Clinical Psychology*, 60(6), 827–832.
- Romanini, J., & Higgs, J. (1991). The teacher as manager in continuing education. *Studies in Continuing Education*, 13, 41–52. doi: 10.1080/0158037910130104

- Roop, S., & Pangaro, L. (2001). Effect of clinical teaching on student performance during a medicine clerkship. *The American Journal of Medicine*, 110(3), 205–209. doi:10.1016/S0002-9343(00)00672-0
- Rosie, J., & Murray, R. (1998). An evaluation of learning on clinical placements in radiography. *Medical Teacher*, 20(3), 227–236. doi:10.1080/01421599880977
- Roth, C. (1996). A worksheet to structure teaching and learning outpatient internal medicine. *Medical Teacher*, 18(2), 125–128. doi:10.3109/01421599609034146
- Rothstein, J. (2002). “Clinical education” versus clinical education. *Physical Therapy*, 82(2), 126–127.
- Ryan S. (1995) Facilitating the clinical reasoning of occupational therapy students on fieldwork placements, in Higgs, J., & Jones, M. (Eds.), *Clinical reasoning in the health professions*. Oxford: Butterworth and Heinemann.
- Saarikoski, M., Leino-Kipi, H., & Warne, T. (2002). Clinical learning environment and supervision: Testing a research instrument in an international comparative study. *Nurse Education Today*, 22(4), 340–349. doi:10.1054/nedt.2001.0715
- Santen, S., Hemphill, R., Spanier, C., & Fletcher, N. (2005). Sorry, it's my first time. Will patients consent to medical students learning procedures? *Medical Education*, 39(4), 365–369. doi:10.1111/j.1365-2929.2005.02113.x
- Schatzki, T. (2006). On organizations as they happen. *Organizational Studies*, 27, 1863–1873. doi: 10.1177/0170840606071942
- Schneider, J., Kaplan, S., Greenfield, S., Li, W., & Wilson, I. (2004). Better physician–patient relationships are associated with higher reported adherence to antiviral therapy in patients with HIV infection. *The Journal of General Internal Medicine*, 19(11), 1096–1103. doi:10.1111/j.1525-1497.2004.30418.x
- Schuster, P., Fitzgerald, D., McCarthy, P., & McDougal, D. (1997). Work load issues in clinical nursing education. *Journal of Professional Nursing*, 13(3), 154–159. doi:10.1016/S8755-7223(97)80066-X
- Shephard, K., & Jensen, G. (1997). *Teaching for physical therapists*. Oxford: Butterworth-Heinmann.
- Sieh, S., & Bell, S. (1994). Perceptions of effective clinical teachers in associate degree programs. *Journal of Nursing Education*, 33(9), 389–394.
- Simpson, M., Buckman, R., Steward, M., Maquire, P., Lipkin, M., Novack, D., et al. (1991). Doctor–patient communication: The Toronto consensus statement. *The British Medical Journal*, 303(6814). doi:10.1136/bmj.303.6814.1385
- Skeff, K., Bowen, J., & Irby, D. (1997). Protecting time for teaching in the ambulatory care setting. *Academic Medicine*, 72(8), 694–697. Retrieved from. doi:10.1097/00001888-199708000-00014

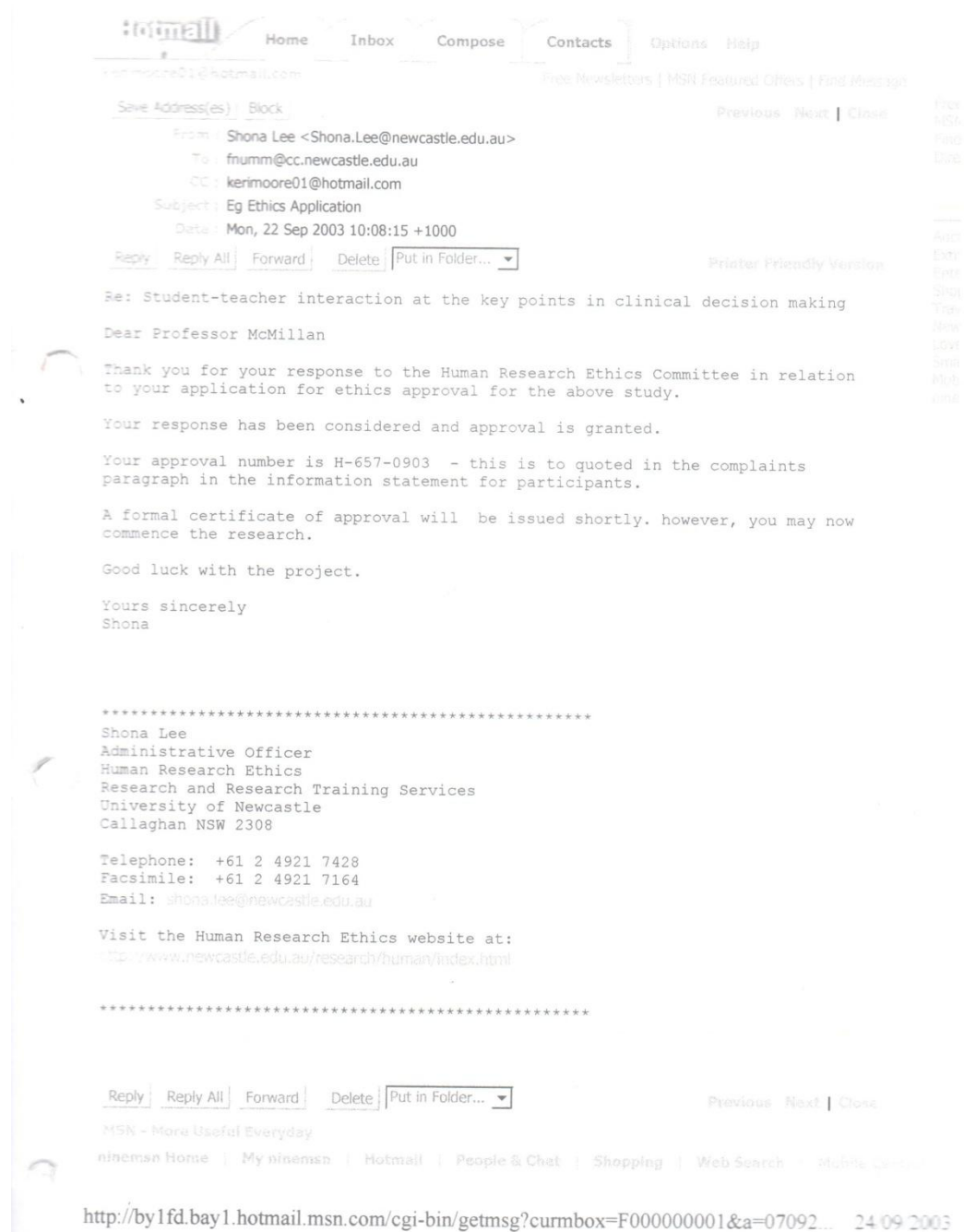
- Skøien, A., Vågstøl, U., & Raaheim, A. (2009). Learning physiotherapy in clinical practice: Student interactions in a professional context. *Physiotherapy Theory and Practice*, 25 (4), 268–278.
- Slater, L. (2006). Person centredness: A concept analysis. *Contemporary Nurse*, 23(1), 35–44.
- Smith, S., & Irby, D. (1997). The roles of experience and reflection in ambulatory care education. *Academic Medicine*, 72(1), 32–35.
- Spencer, J. (2003). The clinical teaching context: A cause for concern. *Medical Education*, 37(3), 182–183. doi:10.1046/j.1365-2923.2003.01460.x
- Spencer, J., Blackmore, D., Heard, S., McCrorie, P., McHaffie, D., Scherpbier, A., et al. (2000). Patient-oriented learning: A review of the role of the patient in the education of medical students. *Medical Education*, 34(10), 851–857. doi:10.1046/j.1365-2923.2000.00779.x
- Stanton, F., & Grant, J. (1999). Approaches to experiential learning, course delivery and validation in medicine. A background document. *Medical Education*, 33(4), 282–297. doi:10.1046/j.1365-2923.1999.00272.x
- Stark, P. (2003). Teaching and learning in the clinical setting: A qualitative study of the perceptions of students and teachers. *Medical Education*, 37(11), 975–982. doi:10.1046/j.1365-2923.2003.01675.x
- Stein-Parbury, J. (2003). *Patient and person: Interpersonal skills in nursing* (3rd ed.). London: Elsevier.
- Stiller, K., Lynch, E., Phillips, A., & Lambert, P. (2004). Clinical education of physiotherapy students in Australia: Perceptions of current models. *Australian Journal of Physiotherapy*, 50, 243–247.
- Strumberg, J. (2005). How to teach holistic care: Meeting the challenge of complexity in clinical practice. *Education for Health*, 18(2), 236–245. doi:10.1080/13576280500154062
- Sutkin, G., Wagner, E., Harris, I., & Schiffer, R. (2008). What makes a good clinical teacher in medicine? A review of the literature. *Academic Medicine*, 83(5), 452–466 doi:10.1097/ACM.0b013e31816bee61
- Tabak, N., Bar-Tal, Y., & Cohen-Mansfield, J. (1996). Clinical decision making of experienced and novice nurses. *Western Journal of Nursing Research*, 18(5), 534–547. doi:10.1177/019394599601800505
- Taylor, C. (1997). Problem solving in clinical nursing practice. *Journal of Advanced Nursing*, 26(2), 329–336. doi:10.1111/j.1365-2648.1997.tb00699.x
- Thistlethwaite, J., & Cockayne, E. (2004). Early student–patient interactions: The views of patients regarding their experiences. *Medical Teacher*, 26(5), 420–422. doi:10.1080/014215900410001696443.
- Thomas, E., Hafler, J., & Woo, B. (1999). The patient's experience of being interviewed by first-year medical students. *Medical Teacher*, 21(3), 311–314. doi:10.1080/01421599979608

- Thompson, A. (2007). The meaning of patient involvement and participation in health care consultations: A taxonomy. *Social Science and Medicine*, 64(6), 1297–1310. doi:10.1016/j.socscimed.2006.11.002
- Thompson, S., Pitts, J., & Schwankovsky, L. (1993). Preferences for involvement in medical decision-making: Situational and demographic influences. *Patient Education and Counselling*, 22(3), 133–140. doi:10.1016/0738-3991(93)90093-C
- Thornton, R., & Chapman, H. (2000). Student voice in curriculum making. *Journal of Nursing Education*, 39(3), 124–132.
- Titchen, A., & Binnie, A. (1995). The art of clinical supervision. *Journal of Clinical Nursing*, 4, 327–334.
- Torre, D., Sebastian, J., & Simpson, D. (2003). Learning activities and high-quality teaching: Perceptions of third-year IM clerkship students. *Academic Medicine*, 78(8), 812–814. doi:10.1097/00001888-200308000-00015
- Towle, A. (2006). Where's the patient's voice in health professional education? *Nurse Education in Practice*, 6(5), 300–302. doi:10.1016/j.nepr.2006.04.009
- Tsimtsiou, Z., Kerasidou, O., Efstathiou, N., Papaharitou, S., Hatzimouratidis, K., & Hatzichristou, D. (2007). Medical students' attitudes toward patient-centred care: A longitudinal survey. *Medical Education*, 41(2), 146–153. doi:10.1111/j.1365-2929.2006.02668.x
- van der Hem-Stokroos, H., Daelmans, H., van der Vleuten, C., Haarman, H., & Scherpbier, A. (2003). A qualitative study of constructive clinical learning experiences. *Medical Teacher*, 25(2), 120–126. doi:10.1080/0142159031000092481
- Vinson, D., Paden, C., & Devera-Sales, A. (1996). Impact of medical student teaching on family physicians' use of time. *The Journal of Family Practice*, 42(3), 243–224.
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press.
- Wall, D. (2010) Evaluation: Improving Practice, Influencing Policy, *In Understanding Medical Education: Evidence, Theory and Practice* (Ed T. Swanwick), Wiley-Blackwell, Oxford, UK. doi: 10.1002/9781444320282.ch23
- Walsham, G., (2006). Doing interpretive research. *European Journal of Information Systems* 15, 320–330 (1 June, 2006) | doi:10.1057/palgrave.ejis.3000589
- Weir, M. (2000). *Complementary medicine: Ethics and law*. Brisbane: Prometheus Publications.
- Wenger, E. (1998) *Communities of practice: Learning, meaning, and identity*, Cambridge: Cambridge University Press.

- Westberg, K., Duchek, M., Sandlund, M., & Lynöe, N. (2004). Informed consent for clinical education. Randomized study of two different strategies at a urology surgery. *Scandinavian Journal of Urology Nephrology*, (38), 490–494. doi: 10.1080/00365590410015876.
- Westberg, K., Lynöe, N., Lalos, A., Löfgren, M., & Sandlund, M. (2001). Getting informed consent from patients to take part in the clinical training of students: randomised trial of two strategies. *British Medical Journal*, Vol. 323(7311), 488.
- Westberg, K., Sandlund, M., & Lynöe, N. (2005). The effect of giving information in advance on the clinical training of medical students. *Medical Education*, 39(10), 1021–1026. doi:10.1111/j.1365-2929.2005.02267.x
- Williams, B., & Grant, G. (1998). Defining people-centredness: Making the implicit explicit. *Health and Social Care in the Community*, 6(2), 84–94. doi:10.1046/j.1365-2524.1998.00101.x
- Winch, C., & Gingell, J. (2005). *Key concepts in the philosophy of education* New York: Routledge.
- Woo-Sook, L., Cholowski, K., & Williams, A. (2002). Nursing students' and clinical educators' perceptions of characteristics of effective clinical educators in an Australian university school of nursing. *Journal of Advanced Nursing*, 39(5), 412–420.
- Worley, P., Prideaux, D., Strasser, R., Magarey, A., & March, R. (2006). Empirical evidence for symbiotic medical education: A comparative analysis of community and tertiary-based programmes. *Medical Education*, 40(2), 109–116. doi:10.1111/j.1365-2929.2005.02366.x
- Xing, M., & Long, A. (2006). A retrospective survey of patients at the University of Salford Acupuncture Clinic. *Complementary Therapies in Clinical Practice*, 12(1), 64–71. doi:10.1016/j.ctcp.2005.05.008
- Yeates, J., Stewart, J., & Barton, J. (2008). What can we expect of clinical teachers? Establishing consensus on applicable skills, attitudes and practices. *Medical Education*, 42, 134–142. doi:10.1111/j.1365-2923.2007.02986.x
- Yin, R. (2004). *The case study anthology*. California. USA: Sage Publications.
- Yong, V. (1996). 'Doing clinical': The lived experiences of nursing students. *Contemporary Nurse*, 5(2), 73–79.



## Appendix One: Letter of Ethics Approval for the Research, 22<sup>nd</sup> September, 2003



## Appendix Two: Letter of Approval for variation, 27<sup>th</sup> March, 2006.

 **UniMail** A Service of the Communications Unit



**INBOX: FW: Variation to approved research - H-657-0903 (21 of 21)** 

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Date: Mon, 27 Mar 2006 02:06:15 +0000

From: kerim moore <kerimmoore01@hotmail.com> 

To: kerim.moore@UNSWalumni.com 

Subject: FW: Variation to approved research - H-657-0903

Part(s):  1 unnamed text/html 1.08 KB 

Re: Student-teacher interaction at the key points in clinical decision-making

HREC Approval H-657-0903

Dear Professor McMillan

Thank you for your latest response received via email on 15 March 06 in support of your Application for Variation, dated 27 Oct 05, to the Human Research Ethics Committee (HREC) seeking approval for a Variation to the above project, which is the higher degree research of Keri Moore. Details of the Variation are set out below.

Your response has been reviewed and accepted by the HREC Chair under the provisions for expedited review and I am pleased to advise that the conditional approval granted by the HREC on 16 Nov 2005 is now confirmed.

The variation, as set out in your application, is to:

1. Extend participation to students in undergraduate nursing, physiotherapy and occupational therapy and the practitioner educators involved in their clinical education as well as the patient/clients at the clinics and various other clinical learning environments where undergraduate health-science education takes place.
2. Although not identified as a variation, implicit in the application is the addition of the following co-investigators: Dr Jane Conway, School of Nursing and Midwifery; and Dr Pauline Chiarelli, Discipline of Physiotherapy.

Regards

\*\*\*\*\*  
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<https://unimail.unsw.edu.au/horde/imp/message.php?index=468>

27/03/2006

### Appendix Three: Sample of the two stages of qualitative analysis of data

Student Number	Stage One: Initial Category	Q9. In what way does working with real clients' help you learn? Please explain.	Stage two: Themes identified
8	Learning skills	Learn to interact effectively with patients of all kinds. Reality of treatment certain conditions	Communication rapport and skill development
17	Better learning	Facilitates learning in a more memorable context	Memorable learning experiences
18	Comparison to class room learning	As realistic as it gets. You don't get the same learning experience practicing on each other as with a patient in real pathology	Exposure to individuals with pathology
19	Forces skill building and knowledge extension	It helps you apply conditions and treatment to a real person. Makes you adapt your skills for every patient as they are never the 'textbook case'.	The enhancement of clinical reasoning and decision-making
20	Forces skill building and knowledge extension	Forces me to use clinical reasoning and apply theoretical knowledge. Therefore invaluable learning experience	The enhancement of clinical reasoning and decision-making
26	More memorable	Sticks in the mind better. You can get a chance to apply the theory you learn: increases confidence.	Memorable learning experiences
15	Learning skills	Makes me think	The enhancement of clinical reasoning and decision-making
16	Communication	It puts all theoretical knowledge into context and highlights the different communication strategies that need to be applied for people with different belief systems and levels of compliance	Communication rapport and skill development
9	Authentic cases, seeing whole person	They have real conditions/problems- rather than when we work on each other in class. They also have multiple injuries and social factors and other factors which impact on their condition and outcome. So it is important when looking at the person as a whole	Exposure to individuals with pathology
10	Authentic	Provides a context i.e. framework by which to assess the treatment	The enhancement of clinical reasoning and decision-making
11	Makes me accountable	Puts more pressure on to be right. Gives accurate experience of what the profession will be like. Makes you accountable for knowledge deficits.	The increase in a sense of responsibility

Student Number	Stage One: Initial Category	Q9. In what way does working with real clients' help you learn? Please explain.	Stage two: Themes identified
12	Memorable communication	Learning experience that you can recall in your mind. Allows practice application of theory learnt through teaching/text books. Allows patient interaction skills. Allows practical skills to be developed (Manual Handling) etc.	Memorable learning experiences
14	Developing clinical reasoning	Clinical reasoning processes improve. Holistic view of treatment	The enhancement of clinical reasoning and decision-making
22	Build confidence	Get more confidence. Apply what I have learned. Reinforce understanding of things taught at Uni	The enhancement of clinical reasoning and decision-making
23	Authentic practice	Its what we are actually going to do when we work as physios. Patients are very different to peers to practice on	Exposure to individuals with pathology
24	Different from class room	Its not textbook, there's always other factors that complicate it all and there's no point pretending that isn't the case when in the real world it is	Exposure to individuals with pathology
28	Authentic practice	We get to practice what we've learnt at Uni. We get to see patients with actual problems (rather than practicing on Uni Students)	Exposure to individuals with pathology
29	Develop knowledge and understanding	Enhance understanding of knowledge: Consolidation of Uni knowledge: develop confidence in real hands on work	Exposure to individuals with pathology
30	Develop knowledge and understanding	Allow you to apply theoretical knowledge to a person. I find it easy to remember a person rather than a lot of theory. Applying skills to a person with pathology is far more valuable than memorising theory.	Memorable learning experiences
31	Real patients authentic	Opportunity to practice skills you have learnt, particularly manual skills. At University you learn about different things separately. But seeing real patients' helps to collaborate everything you have learnt.	Exposure to individuals with pathology
32	Real pathology	Gives you an opportunity to see what conditions are really like ( the whole picture), lets you bring everything you have learnt altogether diagnosis and treatment all at once	Exposure to individuals with pathology
34	Skill development	Handling skills, clinical reasoning: physiological reactions and restrictions	Exposure to individuals with pathology
35	Real pathology	They have real conditions/problems- rather than when we work on each other in class. They also have multiple injuries and social factors and other factors which impact on their condition and outcome. So it is important when looking at the person as a whole	Exposure to individuals with pathology
36	Memorable, confidence building	This what we are going to do, gives you confidence as you get to practice things you have learnt. Cements it in your memory	Memorable learning experiences

Student Number	Stage One: Initial Category	Q9. In what way does working with real clients' help you learn? Please explain.	Stage two: Themes identified
38	Authentic practice	Puts theory into practice. At Uni you practice on people with 'pretend' injuries etc, so it is good to experience the real thing	Exposure to individuals with pathology
40	exposure	Get experience with many different cases	The increase in a sense of responsibility
44	communication	Improves communication skills with patients. Puts out theory learning into clinical perspective	Communication rapport and skill development
45	memorable	It reaffirms and consolidates what I have learnt in the classroom. It makes things easier to remember because you can remember back to a client	Memorable learning experiences
52	Hands on	Hands on experience, actually seeing the problems rather than trying to decipher text	Memorable learning experiences
53	Makes me think	Practice practical skills of diagnosis and treatment on real patients with problem	Exposure to individuals with pathology
54	Makes me accountable	Forces me to apply my full concentration and attention and knowledge as a person's welfare is at stake	The increase in a sense of responsibility
55	Makes me think	Seeing real patients and real cases makes you put all your knowledge together and organise it in your head. You also learn practical skills eg. Teaching exercises.	Exposure to individuals with pathology
57	Real pathology	Different views and walks of life, patience, hands on actually seeing the disease/problem	Exposure to individuals with pathology
60	See the value of what is taught at uni.	Puts skills into practice. Shows the importance of what we are learning. Provides new scope and opportunity for learning.	The increase in a sense of responsibility
62	Awareness and responsibility	They are real people with real problems and very individual needs. Not something you can get from acting patients	The increase in a sense of responsibility

## **Appendix Four: Interview questions for faculty**

1. What is your role?
2. Is it difficult to recruit clinical educators?
3. What strategies are in place for the professional development of clinical educators at this Uni?
4. Do the clinical educators receive any incentive?
5. How is their work evaluated?
6. How long do they usually stay attached to this University?
7. What is the greatest difficulty in retaining clinical educators?
8. What happens elsewhere for example in Sydney?

## Appendix Five: Students' survey about the clinical education setting

### General Questions

1. What degree will you be awarded on graduation?
2. In what year of the course are you currently enrolled?
3. In what type of clinical education setting (CES) did you last work?
  - a) Private practice
  - b) Home visits to clients/clients residents
  - c) Public Hospital Ward
  - d) Private Hospital Ward
  - e) Community Health Centre
  - f) Outpatients Wards Public Hospital
  - g) Outpatients Ward Private Hospital
  - h) Non Government Residential Aged Care
  - i) Other

Please answer all the following questions in relation to the above CES

4. What was your role in the above CES?
  - a) Observer
  - b) Involved in co-treatment of the client with the clinical educator
  - c) Semi-Autonomous student-practitioner
5. What is the usual ratio of student to clinical educator in the CES?

a) 1:1	b) 4:1	c) 7:1
d) 2:1	e) 5:1	f) 8:1
g) 3:1	h) 6:1	i) Other.....:
6. How many clients would you see on an average day in the above CES?

a) < 5	b) 10-15	c) 20<
d) 5-10	e) 15-20:1	f) Other.....6:1

7. Please given an estimate of how often your clinical educator

a) demonstrates that he/she has broad base of knowledge in your health science discipline	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
b) demonstrates that he/she is competent in clinic in your health science discipline	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
c) points out all the events and opportunities in clinic that may help you learn	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
d) misses events that would have helped you learn	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
e) asks questions which extend your knowledge	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
f) gives feedback on what you do in clinic	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
g) gives feedback on who you think about in clinic	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
h) demonstrates that he/she has an understanding of what it is like to be a student	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
i) seems to enjoy teaching	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
j) seems to be well organized	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
k) seems to be well prepared	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
l) seems to be accessible to students	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
m) displays good communicate skills	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
n) seems to be open-minded	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
o) seems to be respectful of students	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
p) seems to be respectful of clients	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
q) asks for your feedback on his/her teaching	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
r) corrects your work in front of others	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
s) uses sarcasm/inappropriate humor	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
t) gives you unclear cues about what is expected	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
u) questions you at inappropriate times	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>

8. When you are being given feedback, how often does the clinical educator?

a) Give you positive feedback	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
b) Explain why your responses/action is right	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
c) Explain why your responses/action is wrong	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
d) Identify areas in which you need to improve	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
e) Give you needless direction/explanation	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
f) Give you incorrect information	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>

9. In what way does working with real clients' help you learn? Please explain.

10. Do you have any difficulties working with clients in clinic situations? Yes/No  
If yes, please explain.

11. When appropriate, do you ask the client for feedback to assess if you have helped them or if what you have been told to do is causing them some discomfort?

- a) Yes                      b) No                      c) Sometimes

12. Please explain what you do if you feel the intervention you have given to the client had an adverse effect on them?



13. Estimate how often your clinical educator

**Please circle the best answer to the following questions**

- |   |              |               |                  |              |               |
|---|--------------|---------------|------------------|--------------|---------------|
| a) allocates time for a briefing session on each individual client?                                 | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| b) allocates time for discussion with you regarding an individual client during the consultation?   | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| c) allocates time for a de-briefing session with you on each individual client after care delivery? | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| d) allocates time to discuss what you have learned regarding an individual client?                  | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| e) obtains informed consent from the client for you to be involved in his/her health care?          | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| f) invites the client to be an active participant in your learning?                                 | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |

14. Please give an estimate of how often you have discussions with the clinical educator regarding the following aspects of each client's presentation?

**Assessment**

- |   |              |               |                  |              |               |
|---|--------------|---------------|------------------|--------------|---------------|
| a) The salient features of the case history | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| b) The symptomatology                       | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| c) The current status of the client         | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| d) The diagnosis                            | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| e) Strategies for assessment                | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |

**Planning**

- |   |              |               |                  |              |               |
|---|--------------|---------------|------------------|--------------|---------------|
| f) The findings from diagnosis/assessment | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| g) Technique/intervention selection       | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |

**Intervention**

- |                   |              |               |                  |              |               |
|-------------------|--------------|---------------|------------------|--------------|---------------|
| h) Implementation | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
|-------------------|--------------|---------------|------------------|--------------|---------------|

**Evaluation**

- |  |              |               |                  |              |               |
|--|--------------|---------------|------------------|--------------|---------------|
| i) The criteria for determining the response to treatment                  | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| j) The continuum of care and advice given to the client for between visits | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |

15. Please give an estimate of how often you have discussions with the clinical educator regarding the following issues?

**Rationale**

a) The rationale for the diagnosis	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
b) The rationale for the assessment strategy	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
c) The rationale for the treatment/intervention	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
d) The rationale for the criteria to evaluate response to care	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
e) The rationale for the continuum of care and advice given to the client for between visits	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
f) The rationale for overall treatment plan	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
g) What the client contributed to the discussion/care plan	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
h) Your experiences with similar cases	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>

16. In an ideal world, how often would you like to have discussions with your clinical educator regarding the following aspects of each client's problem?

**Assessment**

a) The salient features of the case history	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
b) The symptomatology	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
c) The current status of the client	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
d) The diagnosis	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
e) Strategies for assessment	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>

**Planning**

f) The findings from diagnosis/assessment	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
g) Technique/intervention selection	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>

**Intervention**

h) Implementation	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
-------------------	--------------	---------------	------------------	--------------	---------------

**Evaluation**

i) The criteria for determining the response to treatment	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
j) The continuum of care and advice given to the client for between visits	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>

**Rationale**

k) The rationale for the diagnosis	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
l) The rationale for the assessment strategy	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
m) The rationale for the treatment/intervention	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
n) The rationale for the criteria to evaluate response to care	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
o) The rationale for the continuum of care and advice given to the client for between visits	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
p) The rationale for overall treatment plan	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
q) What the client contributed to the discussion/care plan	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>
r) Your experiences with similar cases	<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Often</i>	<i>Always</i>

## **Appendix Six: Clinical educators' survey about the clinical education setting**

1. Please indicate your profession:
2. How many years have you been involved as an educator in undergraduate health science education?
  - a) less than 1 year
  - b) 1 - 2 years
  - c) 2 - 3 years
  - d) 3 - 4 years
  - e) more than 5 years
3. Have you been involved in clinical education over the last twelve-month period?  
Yes/No
4. On average how many students do you have in one group?
  - a) 1 - 2 students
  - b) 3 - 4 students
  - c) 4 - 5 students
  - d) 6 - 7 students
  - e) 8 or more students
  - f) Other
5. Have you undertaken any professional development (PD), regarding clinical education? Yes/No
6. What type of professional development regarding clinical education have you undertaken?
  - a) Attended clinical education meetings in the workplace
  - b) Up to 1 day workshop organized by a University?
  - c) Up to 1 day workshop organized by your workplace?
  - d) A weekend seminar. Organized by whom?
  - e) Formal qualifications in clinical teaching. Organized by whom?
  - f) Other
7. What is the main factor which impacts on whether you are able to participate in professional development activities regarding clinical practice/fieldwork?
  - a) Lack of time to attend
  - b) Cost of courses
  - c) Lack of options in PD course delivery in clinical education
  - d) Lack of incentives to acquire clinical teaching skills
  - e) Courses held too far away

8. Do you **agree** or **disagree** with the following statements regarding factors which **inhibit performance** as an effective clinical educator?

- |   |              |                 |
|---|--------------|-----------------|
| a) I do not have time to undertake training in clinical teaching  | <i>Agree</i> | <i>Disagree</i> |
| b) Clinical teaching is underpaid   | <i>Agree</i> | <i>Disagree</i> |
| c) Clinical teaching is undervalued   | <i>Agree</i> | <i>Disagree</i> |
| d) Clinical teaching is an onerous task   | <i>Agree</i> | <i>Disagree</i> |
| e) I lack confidence in my ability to teach students clinical skills  | <i>Agree</i> | <i>Disagree</i> |
| f) I feel uncomfortable asking clients/clients if they mind if students participate in their care/treatment | <i>Agree</i> | <i>Disagree</i> |
| g) Students learning inhibits the practitioner/client relationship in my workplace                          | <i>Agree</i> | <i>Disagree</i> |
| h) Clients/clients do not like to have students involved in their health care in my workplace               | <i>Agree</i> | <i>Disagree</i> |
| i) I am unable to allocate time to teaching students  | <i>Agree</i> | <i>Disagree</i> |

9. Do you **agree** or **disagree** with the following statements regarding factors which **enhance performance** as an effective clinical educator?

- |  |              |                 |
|--|--------------|-----------------|
| a) I am confident/competent that I can teach students effectively                              | <i>Agree</i> | <i>Disagree</i> |
| b) I have been given clear and concise information regarding students at different year levels | <i>Agree</i> | <i>Disagree</i> |
| c) The University gives me ongoing support   | <i>Agree</i> | <i>Disagree</i> |
| d) Clinical teaching is valued in my workplace   | <i>Agree</i> | <i>Disagree</i> |

10. Please indicate the type of CES in which you teach ***most frequently***:

- a) Private practice
- b) Home visits to clients/clients residents
- c) Public Hospital Ward
- d) Private Hospital Ward
- e) Community Health Center
- f) Outpatients Ward Public Hospital
- g) Outpatients Ward Private Hospital
- h) Non Government Residential Aged Care
- i) Other

***\*Please answer all other questions with the above CES in mind.***

11. What is the usual ratio of student to clinical educator in your CES?

- |        |        |        |        |
|--------|--------|--------|--------|
| a) 1:1 | b) 3:1 | c) 5:1 | d) 7:1 |
| e) 2:1 | f) 4:1 | g) 6:1 | h) 8:1 |

12. How many clients would each student see on an average day in the CES?

- |          |                  |
|----------|------------------|
| a) < 5   | b) 15-20:1       |
| c) 5-10  | d) 20<           |
| e) 10-15 | f) Other.....6:1 |

**Please circle the best answer to the following questions**

13. Estimate **how often** you undertake the following activities. *How often do you*

- |   |              |               |                  |              |               |
|---|--------------|---------------|------------------|--------------|---------------|
| a) give a student a briefing session on <b>each individual</b> client                                   | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| b) discuss an individual client with the student <b>during</b> the consultation?                        | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| c) conduct a de-briefing session with the student on <b>each individual</b> client after care delivery? | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| d) discuss what the student is learning with the individual client                                      | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| e) obtain informed consent from the client/ for the student to be involved in his/her health care?      | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| f) invite the client to be an active participant in the student's learning                              | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |

14. Please give an estimate **how often** you have discussions with students regarding the following aspects of **each client's** presentation?

**Assessment**

- |   |              |               |                  |              |               |
|---|--------------|---------------|------------------|--------------|---------------|
| a) The salient features of the case history | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| b) The symptomatology                       | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| c) The current status of the client         | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| d) The diagnosis                            | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| e) Strategies for assessment                | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |

**Planning**

- |   |              |               |                  |              |               |
|---|--------------|---------------|------------------|--------------|---------------|
| f) The findings from diagnosis/assessment | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| g) Technique/intervention selection       | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |

**Intervention**

- |                   |              |               |                  |              |               |
|-------------------|--------------|---------------|------------------|--------------|---------------|
| h) Implementation | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
|-------------------|--------------|---------------|------------------|--------------|---------------|

**Evaluation**

- |  |              |               |                  |              |               |
|--|--------------|---------------|------------------|--------------|---------------|
| i) The criteria for determining the response to treatment                  | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| j) The continuum of care and advice given to the client for between visits | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |

**Discussion points**

- |   |              |               |                  |              |               |
|---|--------------|---------------|------------------|--------------|---------------|
| k) The rationale for the diagnosis  | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| l) The rationale for the assessment strategy                                | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| m) The rationale for the treatment/intervention                             | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| n) The rationale for the criteria to evaluate response to care              | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| o) The rationale for the continuum of care/advice for client between visits | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| p) The rationale for overall treatment plan                                 | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| q) What the client contributed to the discussion/care plan                  | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |
| r) The student's experience with similar cases                              | <i>Never</i> | <i>Rarely</i> | <i>Sometimes</i> | <i>Often</i> | <i>Always</i> |

## Appendix Seven: Observation Audit Tool [OAT]

Date .....

1. Discipline.....

2. Year of student.....

3. Student: clinical educator ratio.....

4. The type of clinical education setting (CES):

- a) Private practice
- b) Home visits to clients/clients residents
- c) Public Hospital Ward
- d) Private Hospital Ward
- e) Community Health Center
- f) Outpatient Ward Public Hospital
- g) Outpatient Ward Private Hospital
- h) Non Government Residential Aged Care
- i) Other

5. What is the student's role today during this observation?

- a) Observer
- b) Involved in co-treatment of the client with the clinical educator
- c) Student-practitioner

6. Is this the client's initial consultation or subsequent consultation?

- a) Initial
- b) Subsequent

7. Has the clinical educator seen this client before this observation?

- a) Yes
- b) No
- c) *If Yes, answer Q8, if No go to Q9.*

8. When did the clinical educator last see this client?

- a) Earlier today                      b) Within the last 24 hours      c) Within the last week  
d) Within the last fortnight      e) Within the last month      f) Other

9. Has the student seen this client before?

- a) Yes                      b) No

10. Was the student introduced to the client?

- a) Yes                      b) No                      c) On a previous occasion

11. Was the student's role explained to the client?

- a) Yes                      b) No                      c) On a previous occasion

12. **Who** participated in discussion **regarding the following?**

<b>Assessment</b>	<b>CEd</b>	<b>Student</b>	<b>Client</b>
a) Salient features of the case history			
b) Symptomatology			
c) The current status of the client/client			
d) The diagnosis			
e) Strategies for assessment			
<b>Planning</b>			
f) The findings from diagnosis/assessment			
g) Technique/intervention selection			
<b>Intervention</b>			
h) Implementation			
<b>Evaluation</b>			
i) Criteria for determining the response to treatment			
j) Continuum of care and advice given to the client for between visits			
<b>Discussion points</b>			
k) The rationale for the diagnosis			
l) The rationale for the assessment strategy			
m) The rationale for the treatment/intervention			
n) The rationale for the criteria to evaluate response to care			
o) The rationale for the continuum of care/advice for client between visits			
p) The rationale for overall treatment plan			
q) What the client contributed to the discussion/care plan			
r) The student's experience with similar cases			

13. When the clinical educator was conversing with the student did the clinical educator use the following questioning methods to the student in front of the client?

- a) Request yes/no answers of the student  
b) Request facts from the student  
c) Ask open ended questions to the student  
d) Not question the student

14. Did the clinical educator use the following responding styles in response to the student's questions in front of the client?

- a) Provide yes/no answer to the student
- b) Provide requested information to the student
- c) Not answer the question

15. When the student was conversing with the clinical educator did the student use the following questioning methods?

- a) Request yes/no answers of the clinical educator
- b) Request facts from the clinical educator
- c) Ask open ended questions to the clinical educator

16. Did the student use the following responding styles in response to the clinical educator's questions?

- a) Provide yes/no answer to the clinical educator
- b) Provide requested information to the clinical educator

17. Did the clinical educator give the student feedback on their thoughts or actions in relation to the particular case?      Yes/No

18. Did the clinical educator or the student discuss with the client:

a) Whether or not the client has concerns regarding their health problem? (apart from the symptoms)

- Have you been told what your problem is?
- Is there anything you are worried about?
- Are you concerned this problem is serious?
- Do you have any questions regarding your problem?
- Is there anything you would like me to explain?
- Other

b) If the client understands what is occurring or about to occur in regard to their treatment?

- Has the doctor/nurse/physio/OT talked to you about your treatment today?
- We are just going to .....is that OK?
- Do you know what is going to happen now?
- I'm back to give you.....
- Other



- c) The client's expectations of the treatment outcome?
- What is it that you are expecting from treatment?
  - Do you know that your recovery is going to take X long?
  - Do you know that you are not going to make a full recovery?
  - Do you know that we are just trying to make you comfortable?
  - Other
- d) If the client is willing to comply with treatment plan?
- Do you think you will be able to do...?
  - Is there any reason you will not be able to do...?
  - Other
- e) The plan for unexpected outcomes from this consultation being observed?
- If X happens do you know what to do...?
  - If X happens I want you to...?
  - Just call.....if you feel...
- f) The client's comfort level during the diagnosis and technique/ **intervention**?
- Does that hurt?
  - Let me know if you are uncomfortable
  - Let me know if you want me to stop
  - Are you ok ?
  - Other

## **Appendix Eight: Client interview schedule**

Date.....

*Male or Female*

*Age group:* <20    20 – 24    25- 29    30 – 34    35- 40    40 – 44    45 +

1. What is the highest level of education you have attained?
2. Approximately how many consultations have you had that have involved health science students who are learning clinical skills?

### ***Regarding your consultation today***

1. Was informed consent acquired from you for the student to be involved in your health care?
2. How was the informed consent from the client gained?
3. Was the student introduced to you?
4. Was the student's role explained to you?
5. Can you tell me if you feel you have been offered a satisfactory explanation of your examination and test results by the student and or the practitioner?
6. Has your treatment been explained to you and do you feel you have made a joint decision with the student and or practitioner about your treatment today?
7. Have you and the student and practitioner agreed on the next step in the treatment of your current health issue
8. Could you tell me if you think the student and the practitioner takes your views into account when deciding how to treat you?
9. Can you tell me if you feel that you have been given enough opportunity to discuss all your concerns about your health issues with the student and or the practitioner?
10. What you do if you feel a student or the practitioner does not fully understand your state of health?
11. Can you tell me if you ever give feedback to the student to let them know if they have helped you at all?
12. Can you tell me what do you do if you feel the student's treatment is not appropriate or if the treatment seems to be adversely affecting you in any way?
13. Can you tell me if you think the presence of the student improves the consultation at all?

14. Do you think the supervisor should be with the student throughout the treatment session?
15. Do clients say less to the student than they would a registered practitioner?
16. Do they say less when the student is present?
17. Are there any circumstances in which you would not like to have a students involved in your care?

*Researcher notes:* The client had:

- a physical disability
- a visual impairment
- a hearing impairment

## **Appendix Nine: Clinical educator interview schedule**

1. Was informed consent acquired from the patient for the student to be involved in his/her health care? Yes/No
2. How was the informed consent from the patient gained?
3. What aspects of the teaching/learning episode today do you think have been beneficial to the student involved?
4. Was there anything that was not helpful?
5. What other aspects of the case would you like to have discussed with the student?
6. What do you think the presence of the patient contributed to the student's learning?
7. Was there anything else you would have discussed with the patient if the student was not there?
8. What do you understand by the term client-centred care?
9. Do you think this episode of care today reflected those concepts?

## **Appendix Ten: Student interview schedule**

1. What aspects of the teaching/learning episode today do you think have been beneficial to you?
2. Was there anything that was not helpful?
3. What other aspects of the case would you like to have discussed with the clinical educator?
4. How did the presence of the client contributed to your learning?
5. Was there anything else you wanted to ask the client? What if the educator was not there?
6. What do you understand by the term client-centered care?
7. Do you think this episode of care today reflected those concepts?

## **Appendix Eleven: Participant information statement for the client regarding observation and interview about their consultation**

*You are invited to take part in the research project which is being undertaken for a PhD*

### **Why is the research being done?**

- The focus of this research is the clinical teaching strategies employed during the point of patient care.
- The purpose of this research is to explore the discussions held between clinical educators, students and client during an episode of patient care.
- Information gained from this study will inform curriculum designers and clinical educators
- The information gained will inform the content of clinical educator training programs

### **Who can participate in the research?**

- We are seeking client involved in education of students in the discipline of Physiotherapy.

### **What choice do you have?**

- Participation in this research is entirely your choice
- If you decide to participate, you may withdraw at any time without giving a reason.
- If you decide to withdraw, at the same time you withdraw all data relating to your participation will be deleted.
- Whether or not you participate will not disadvantage you in any way.
- If you wish to participate please complete the **Form of Consent attached to this invitation.**

### **What will you be asked to do?**

- You will be asked to allow me to observe you during your consultation. The focus of the study is on the educational nature, not the clinical content, of the discussion between yourself, the clinical educator and the student during your consultation.
- Please remember that this is a study of teaching and learning in different clinical teaching settings and not of individual client *per se*
- You will be asked to allow me to audio-tape an interview with you regarding your experience as a patient involved in undergraduate health-science students education.
- The interview will be conducted in a private place as designated by the clinical educator or clinic manager on the day of your consultation. The interview is expected to take approximately 5 minutes of your time.
- Immediately after the interview, you will be able to review the tape recordings and to edit or erase anything you do not wish to have recorded.

**What are the risks and benefits of participation?**

- We cannot promise you any personal benefit from participation in this research, neither are there any associated risks.

**How will your privacy be protected?**

- You will not be required to identify yourself and therefore you cannot be identified in any reports arising from the research.
- Only the researchers will have access to the data.
- An experienced person well versed in the ethics of research will undertake the transcription of the audio-taped interviews.
- At the completion of the study all computer files will be transferred to a USB drive and stored with the paper records and tapes in a locked cabinet in the Faculty Office for a period of five-years.
- At the end of the five-year period the data on the USB drive will be erased, tapes destroyed and paper based records shredded.

**How will the information collected be used?**

- Results from this study may be published in Ms Moore's PhD dissertation and in scientific journals.
- Individual participants will not be identified in any reports arising from the project.

If there is anything you do not understand, or if you would like to obtain information about the research, you can contact one of the researchers. I thank you for your consideration.

Yours sincerely, Keri Moore

This project has been approved by the Human Research Ethics Committee at the University of Newcastle, Approval No. H-657-0903 and Coast HREC Approval No. 06/09. The University of Newcastle requires that all participants are informed that if they have any complaints concerning the manner in which a research is conducted it may be given to the researcher or if an independent person is preferred, to the University's Human Research Ethics Officer, Research Branch, the Chancellery, University of Newcastle, 2308. Telephone (02) 4921 6333 or Dr Martin Veysey at Coast HREC on 43203070 or fax: 4320 2477. The Human Research Ethics Committee of Hunter New England has approved this study. Reference No. 07/03/21/5.11. Contact Dr Nicole Gerrand, Professional Officer (Research Ethics), Hunter New England Human Research Ethics Committee, Ph: (02) 4921 4950. Fax: (02) 4921 4818, [Nicole.gerrand@hnehealth.nsw.gov.au](mailto:Nicole.gerrand@hnehealth.nsw.gov.au)

## **Appendix Twelve: Consent form - for client observation during clinical teaching and subsequent interview**

I consent to:

- The investigator observing a consultation between myself, the clinical educator and students;
- Being interviewed regarding what I think about students being involved in my health care; and
- The interview being tape-recorded.

I understand:

- My name will not be mentioned;
- No details of my health status will be noted;
- The research project will be conducted as outlined in the Participant Information Statement, a copy of which I have retained;
- I will have the opportunity to have questions answered to my satisfaction at any time during this research project; and
- The researcher intends to publish the results and the report will include my contribution but will not identify me in anyway.

**Name**

**(Print):.....Signature:.....Date:.....**

### **Ethics Approval**

This project has been approved by the Human Research Ethics Committee at the University of Newcastle, Approval No. H-657-0903 and Coast HREC Approval No. 06/09. The University of Newcastle requires that all participants are informed that if they have any complaints concerning the manner in which a research is conducted it may be given to the researcher or if an independent person is preferred, to the University's Human Research Ethics Officer, Research Branch, the Chancellery, University of Newcastle, 2308. Telephone (02) 4921 6333 or Dr Martin Versey at Coast Human Research Ethics Committee, on 43203070 or Fax: 02) 4320 2477. The Human Research Ethics Committee of Hunter New England has approved this study, reference No. 07/03/21/5.11, contact Dr Nicole Gerrand, Professional Officer (Research Ethics), Hunter New England Human Research Ethics Committee, Ph: 02)4921 4950, Fax: 02)4921 4818, nicole.gerrand@hnehealth.nsw.gov.au.