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Investigating Professional Identity in Undergraduate Physiotherapy Education

By

Heather Talberg

Student Number GRNHEA002

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University of Cape Town

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This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature Date

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Abstract

Clinical practice remains an integral part of the training of physiotherapy students. It is seen as an effective way of socialising students into the profession. By placing students in a clinical setting where under the guidance of clinicians and clinical educators, they are able to put their classroom taught procedures into practice it is believed that they then start to develop an understanding of what being a physiotherapist entails.

Drawing on Lave and Wenger's model of situated learning, this research sets out to understand how final year physiotherapy students begin to develop their identity as physiotherapists. The research looks at the positioning of students within specific communities of practice and the nature of the learning that occurs within these communities.

Using a case study design, a questionnaire was administered to final year physiotherapy students. This was followed up with a focus group of volunteers from the same class. The questionnaire and focus group were designed to obtain an understanding of the students' awareness of what would make them successful physiotherapists, their experiences of undergraduate training and whom they saw as role models of their professional development. Central role players in student training; an academic staff member, a clinical educator and a clinician were interviewed to obtain their sense of what made a successful student, how they defined their own identity and what role they felt they played in the development of a professional identity within students.

What the research seems to uncover is the existence of two central communities within student learning; higher education and the physiotherapy profession. These are mediated by clinical educators who remain central figures in the professional development of students. However, the existence of more than one community of practice has significant implications for the identity that student physiotherapists develop within their undergraduate training.

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1. Introduction and Context

1.1 Introduction

In this research project I set out to better understand what characteristics final year students studying physiotherapy understand as encompassing the professional identity of a physiotherapist (Chapters 3 & 4). This dissertation reports on a case study considering the responses of the final year class of a single South African university's Division of Physiotherapy students. Following this introduction outlining the challenges of understanding the profession of physiotherapy, physiotherapy education, and professionalization, I provide a brief overview of selected relevant literature (Chapter 2), a description of the methodology employed in this project (Chapter 3), a description of the findings followed by a discussion of these findings (Chapter 4), and draw this together with a concluding chapter (Chapter 5).

1.2 Physiotherapy

The discipline of physiotherapy is described on the University Of Cape Town's Faculty of Health Science's website as;

'*A client-centred profession that aims at optimising quality of life. This includes promotion of a healthy life-style and prevention of illness and injury for those at risk, as well as rehabilitation following injury or impairment of function (disability).Physiotherapists are trained to assess clients and to use manipulative techniques, exercise therapy and electrotherapy to reduce pain, promote healing and improve function. The holistic approach to management includes counselling which empowers both client and caregiver to improve quality of life. Service is offered to clients of all ages with conditions such as headaches, bronchitis, asthma, cerebral palsy, strokes, fractured bones, stiff joints and sports injuries, as well as painful necks and backs.' (University of Cape Town, Faculty of Health Sciences 2012: Web)*

Whilst giving the impression of a skilled, empathetic group of individuals who work together for the benefit of their clients, this statement provides very little insight into the value systems, beliefs and behaviours that define the wider profession of physiotherapy.

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1.3 Physiotherapy Education

At this research-led South African University, physiotherapy is offered as a four year Bachelor of Science degree within the Department of Health and Rehabilitation Sciences. Currently the Faculty admits around 60 first year students annually, from increasingly diverse socio-economic and cultural backgrounds. As with a large number of other professional, health related disciplines the Division of Physiotherapy faces the challenge of preparing students for an increasingly challenging and changing health care environment, where the traditional medical model of care is often insufficient.

Currently, the physiotherapy curriculum is designed to meet the clinical and subject requirements of both the University and professional body in the form of the Health Professions Council of South Africa. The essential challenge in the design of this curriculum is how to balance the need for providing undergraduate students with a strong foundation in the basic sciences such as Anatomy, Physiology, and Biomechanics; appropriate physiotherapy specific skills and techniques; as well as developing critical thinking through courses such as anthropology. In addition, the foundations of professionalism, ethics and human rights are integrated into the framework of profession specific and multiprofessional courses such as 'Becoming a Professional' (BP) / 'Becoming a Rehabilitation Professional' (BHP) and Primary Health Care and Disability modules. Ultimately, the obligation of the curriculum is the preparation of physiotherapy students for a working place which is practical, socially interactive and contextually varied. With the South African government's Primary Health Care approach as a central influence of the Health Sciences Faculty's training model, Olkers et al (2007) observe that socially responsive health education must be concerned with 'developing practitioners, who through their professionalism and competence, make a contribution to the health needs of individuals but also to community development' (p2).

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Clinical practice is considered an integral part of the development of these physiotherapy students. Whilst the initial two years of the programme are traditionally weighted toward the basic sciences and principles of physiotherapy, students are given a brief introduction to the clinical area in the form of two or three clinical visits in the second semester of the first year. This takes the form of shadowing final year students, followed by staff mediated debriefings. Clinical exposure increases in the second year, with weekly sessions of supervised group clinical work. These sessions provide some opportunity for students to start identifying with the workings of a hospital, conduct interviews with patients and where appropriate implement basic assessment and treatment procedures. From the third year, students are

expected to start working independently and manage their own patient loads. They spend four mornings a week in clinical practice, rotating through five different clinical rotations. Each clinical rotation lasts five weeks so that by the end of the third year, students are expected to have completed 400 hours of clinical work. The five areas used for clinical placements in the third year are:

- Paediatrics
- General Hospitals
- Community
- Care of the Elderly
- Musculoskeletal Therapy

These third year rotations expose students to some of the broader specialities within physiotherapy and are selected for the opportunities they provide in allowing them to start implementing, integrating and consolidating the process of patient assessment, diagnosis and treatment that they have already been exposed to in the classroom. Clinicians are usually present on site with the students and a clinical educator provides weekly clinical teaching and feedback to the students. In their fourth and final year, students work increasingly fulltime in clinics. They complete four, six week clinical rotations working three full days and two half days. Clinical time is thus increased to approximately 30 hours per week and around 700 hours for the year. The four placements used present a more specialised make up than those of the third year and incorporate all the final stages in technique and knowledge acquisition. The placements all fall within the following categories:

- Adult Neurology and Rehabilitation
- Cardio respiratory and Intensive Care Therapy
- Musculoskeletal Therapy
- A mixed group of specialised units: including Paediatrics, Orthopaedics, Mental Health and a community based rural placement.

Whilst the level of skill of these final year students remains important, it is expected that by now they are able to evidence an increasing ability to problem solve and reason through patient presentation. They must show an ability to evaluate, adapt and prioritise treatment and assessment procedures as well as talk about long term outcomes and goals for individual patients.

At the end of each of their clinical rotations students are assessed in two ways. The first is through a block performance mark, completed on a specific form, which assesses their performance over the entire duration of the rotation. This assessment form is completed by

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both the clinicians present on site who comment on administrative abilities; general communication, team work, record keeping and attitude to work ; as well as the student's clinical educator. The clinical educator completes most of the form commenting on the student's physiotherapy abilities with respect to skills, problem solving, goal setting and client interaction. A section on the form allows for comment on a student's overall professional conduct and allows for the student to fail this block assessment should their conduct be deemed unprofessional or unethical. This block performance mark makes up 40 per cent of the student's overall mark for that specific rotation.

The second form of assessment takes place as a clinical examination of a patient. Here the student is asked to either assess a patient they have not seen before, or treat a patient of their choice. Students are marked by their clinical educator (sometimes accompanied by a clinician) on a standard department assessment form. This assessment form is comprised of various sections which cover both the technical proficiency of the student in the exam (usually the section which carries the highest weighting), communication skills as well as allowing for discussion around pathology, diagnosis, goal setting and treatment plans for a specific patient. The mark for this exam counts for the other 60 percent of the student's overall block mark.

All the block marks through the year are weighted evenly and the final course mark is made up of the average mark over the year. The pass mark for clinical courses in the physiotherapy division is 60 per cent.

Clinical practice therefore, presents students with the opportunity to utilise the skills they have been taught in the classroom and skills lab, to refine them and to improve their understanding of where and how these techniques might be best applied. But more so than this, working in specific clinical areas under the guidance of clinicians and clinical educators, supposedly places students in a position to acquire a true sense of what being a physiotherapist entails. The learning they are exposed to goes beyond the application of skill, it goes to the acquisition of the attitudes, behaviours and values that will ultimately identify them as a professional within the discipline of physiotherapy.

Traditionally, at the University of Cape Town clinical teaching has been a responsibility shared between academic staff, on-site clinicians and contracted personnel often from the private sector employed because of their clinical knowledge, to facilitate student learning in the clinical arena. This is a model utilised globally and at all other universities within South Africa that offer physiotherapy training. Unfortunately, this model has its difficulties. A

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change in health sector staffing combined with increasing student numbers has altered the ability of clinicians to support clinical education. Privately contracted personnel have often very little loyalty to the University or interest in improving their teaching abilities. Students complain of inconsistencies in marking and expectations between supervisors, as well as struggling with differences between what is told to them by academic staff, clinicians and educators. Maintaining alignment between what is needed within the clinical context and what is taught in the classroom curriculum remains problematic. Rodger et al (2008) discuss this in a report that looks at clinical education placements across a range of allied healthcare professions. They provide a set of guidelines to optimise clinical education, which includes three main initiatives;

- Partnership between the healthcare and education sectors of government to support the training of future professionals and ensure that graduates are appropriately trained for the context in which they have to work.
- Support in the form of training and reward for clinical educators.
- Innovative models of clinical education.

Since 2008, the University of Cape Town's Division of Physiotherapy has been in the fortunate position of being able to employ nine permanent clinical educators. The creation of these posts has been funded through a Department of Education (DoE) grant to the Health Sciences Faculty. Although employed in a five eighth capacity they receive similar status to academic staff members and are eligible for promotion and recognition through normal university channels. The clinical educators are integrally involved in the division's curriculum decisions, forming an invaluable link between academic staff, students and clinical sites. Appointed because of a recognised set of clinical skills and with appropriate pedagogical training then provided for them in teaching, the facilitation of learning, and assessment theories, clinical educators are seen to be best equipped to facilitate clinical development in students. In addition, the Physiotherapy Division believes that the introduction of permanent clinical educators has improved the reliability of clinical assessments, with the use of a smaller pool of assessors leading to less inconsistency in results across clinical blocks. The creation of these clinical educator posts has largely removed clinical teaching from the job description of academic staff. It has also lessened the formal supervision requirements of a number of clinicians. Whilst still responsible for the day to day management of students at their sites, the monitoring of administrative responsibilities and overall professional conduct the clinicians' supervision role is now more informal and voluntary and not bound by University rules. The end of block assessment of students falls largely at the door of the clinical educators with, as mentioned, clinicians providing assistance and input as required.

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In my own position as a clinical educator involved in the supervision and assessment of physiotherapy students on clinical blocks I am regularly reminded of my own 'acquired sense of knowing' regarding a particular student's overall abilities as a student physiotherapist. This knowing includes an idea of their technical proficiency, as well as their presentation of the behaviours and characteristics that identify them as a professional. The latter is revealed in the way a student communicates their knowledge, their empathy and level of engagement with clients, peers and other health professionals. It also emerges in their confidence to acknowledge both their strengths and weaknesses, and in their readiness to seek opportunities to grow. So my recognition of a student who has the potential to develop into a very competent graduate, encompasses a far broader perspective of a physiotherapist than the technical proficiency or skill set for which the broader public might associate with members of the physiotherapy profession.

The question arises as to how these professional attributes are developed and successfully incorporated into the representation of a physiotherapist which a particular student presents to their educators and clients. We, as clinical educators, acknowledge that these are the aspects that often distinguish those we recognise as outstanding graduates from the average student. We assess students on aspects such as communication skills, empathy and the ability to see each patient as an individual with their own unique particular problems and position in society. In addition we encourage the development of students' reflective practices and self-evaluation so as to improve clinical competence. There is also the sense of initiative, responsibility and a level of maturity which are not necessarily taught, but are definitely learnt by some students, and which assist this all these components coming together to develop a competent graduate in physiotherapy. Yet we, as educators representative of a higher education institution, often fail to address where this sense of professional identity comes from, or acknowledge our own and others potential role in identity formation.

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2. Literature Review and Theoretical Framework

This chapter provides a brief overview of literature relevant to the study, beginning with a consideration of what being a 'profession' may mean. This is followed by views on physiotherapy as a profession, the concept of 'clinical education', and a review of the main themes in the methodological basis for this project, the work on communities of practice proposed by Lave and Wenger (1991), and Hodkinson, and Hodkinson (2003).

2.1 Defining the idea of a profession, professionalism and professional development

Creuss et al (2004) in considering a definition of 'profession' appropriate for medical education note that the term profession is used to describe a specific group of individuals, who share a body of knowledge, have some autonomy over their actions and share a mandate to serve. This gives the group a specific status in society and legitimates financial reward for their services, provided they are seen to be competent and of a certain moral standard. It is understood further that the development of the profession relies on it maintaining its status and knowledge base as well as its scope of practice.

This definition gives a limited perspective of the scope of practice and range of situations that professionals in today's fast moving, changing global environment find themselves. It underlies the technical rationalist, positivist approach that for a long while formed the basis of professional university based curriculum. Donald Schon (1987) alludes to this when he speaks to the dilemma of professional schools which have to find a balance between the need to provide their students with a baseline of profession specific skills and knowledge, but at the same time prepare them for the 'indeterminate zones of practice' characterised by 'uncertainty, uniqueness and value conflict' (Chap 1. p6).

Evans (2010) argues that the notion of a profession provides a sense of collective purpose and commonality. Professionalism in her view becomes the outwardly portrayed things that members of a profession do within the context of their professional role, as well as what they know, how they acquire their knowledge and understandings, their behaviours, attitudes and functions.

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Evans's (2010) notion suggests that professionalism is comprised of multiple components or 'professionalities'. Professionals are positioned along a continuum made up of these professionalites which represent the individuals 'ideologically-, attitudinally, intellectually-, and epistemologically based stance' (p6). Individual development relies on the ability to change position along this continuum.

For higher education bodies, looking to ensure the professionalism of its graduates, this idea implies that it cannot solely be concerned with the outwardly measureable actions of its students. To nurture true professionalism, the behaviours (relating to procedures and skills), attitudes (implying belief systems and values), and intellectual processes (involving knowledge, understanding and the reasoning applied to practice) of students need to be identified and developed. Ongoing development of the student's identity as a professional is reliant on them changing their position and outlook in respect of these three components of professionality.

Taking Schon's idea of the uncertainty of areas of practice further, Ronald Barnett (2000a and b) speaks of the curriculum dilemmas faced by higher education. He sees the real world that students are being prepared or trained for as a 'supercomplex' one, in which traditional frameworks are constantly being challenged. This is a fast paced developing world characterised by change and uncertainty. For students to be able to succeed and cope within this environment, higher education programmes need a shift in curriculum design to include 'epistemological (knowing), praxis (action) and ontological (self-identity) elements' (p258 b). Barnett insists that only by providing students with reflective skills and awareness of their self, are we as educators within a higher education institution, truly able to prepare students to work effectively within a 'supercomplex' world.

Gloria Dall'Alba (2009) reiterates this. From her perspective, professional education programmes need to be seen as not merely a source of knowledge and skills, which are acquired by participants, but rather as a way of developing a professional being. Therefore the end point is 'becoming the professionals in question, not simply knowing as an end to itself' (p35). To do this the traditions, routines and practices of the profession itself need to be embodied by the aspiring professionals. Similar to Barnett's description, this learning of professional ways occurs through 'integration of knowing, acting and being the professional in question' (p43). Significantly for higher education programmes, Dall'Alba and Sandberg (2006) show that it is not just routine engagement with practices that ensures success or development. Rather it is an understanding of practices, which forms the basis of

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professional development. It is this that needs adequate development into higher education professional curricula.

At some point higher education institutions need to decide on what form of knowing, acting and practice they are looking to develop within the students they are training as newcomers to a profession. Too often there is a tension between the reality of the demands of higher education bodies and the expectations of the workplace. In a higher education environment learning is still largely governed by assessment. So to give value to something it must be seen to be tangible and assessable. Knowledge in itself becomes the commodity 'sold' by universities to the marketplace of society. Michael Young (2008) drawing on ideas by Bernstein, challenges the historical abilities of the professions to encourage the development of identities through the 'inner dedication to knowing' (p153). Herein is one of the dilemmas of higher education assessment, as Shay (2008) points out 'what is lacking in our assessment criteria discourse is a language of description to talk about the valued forms of disciplinary knowledge' (p588). Assessment criteria cannot measure that which is so tacit to the make-up of professional competence. It is the indefinable that turns the measurable science of physiotherapy into an art of practice. So, the knowing then recreated by higher education and thus learnt by students as the benchmark of their success, is not necessarily the knowing needed ultimately for successful practice.

Considering then these perspectives on the essence of professions and the individuals who make up its membership, there is a need to look at the positioning of the profession of physiotherapy within this framework.

2.2 Physiotherapy as a Profession

Physiotherapy, as with other health care professions, is not immune to the global trends facing healthcare delivery. Higgs et al (1999) point out that society's notions of health are changing, thus potentially placing physiotherapy's traditional curative role in healthcare systems under threat. No longer is it sufficient to view healthcare delivery or physiotherapy intervention solely from the curative perspective, where the patient in isolation is central to the care delivered. Whilst in some acute settings curing a patient's immediate clinical problem may be a short term option, truly long term effective healthcare cannot exist without an understanding of the greater needs of the society and the communities in which clients live. By considering healthcare then from this perspective, one looks beyond just the immediate problem facing the patient to an understanding of what has caused the problem and what will perpetuate it. From this view, healthcare and physiotherapy care is ineffective if

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not involved with the prevention of a recurrence or exacerbation of a patient's medical problem, as well as an assessment of the impact of the patient's current condition or disability on their functioning within their communities in the future.

In an editorial, Carolyn Roskell (2009) addressing the United Kingdom context, suggests that physiotherapists find it difficult moving from a biomedical practice model to a patient centred agenda. She emphasises that the philosophy of patient-centeredness needs to be integrated into the physiotherapy curriculum through specific service learning sites. It is here that students gain 'concrete experience of social issues, engaging them in taking practical action to make a difference in diverse communities' (p246). Higgs et al (1999) note that this shift in position calls for an even greater level of competence from health care professionals including physiotherapists. Using the phrase 'interactional professional', they see this as a model that combines 'established notions of competence, reflection, problem solving and professionalism' along with the additional components of 'social responsibility, interaction and situational leadership' (p21). These ideas are reiterated by Barbara Richardson (1999) who comments that the reality of physiotherapy has shifted from a traditional medical model of healthcare to a socially based, client centred model of healthcare which relies on a multidisciplinary team approach. She too alludes to the fact that graduates into the profession need more than the traditionally recognised competencies to confidently manage physiotherapy issues within this framework. They need a clear understanding of the uniqueness of their role and the scope of practice of their profession.

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Increasingly, the burden to provide graduates with this sense of insight into the demands of their profession is placed at the door of higher education institutions. The Health Professionals Council of South Africa's (HPCSA), Professional Board for Physiotherapy has recently released a confidential review document for the degree in Physiotherapy which highlights these elements in the rationale and purpose of the qualification. (HPCSA, Professional Board Report).In their eyes physiotherapy is described as a 'dynamic profession, which prevents and addresses the problems of disability and promotes wellness through a holistic approach to healthcare within a multidisciplinary team... Physiotherapy education must therefore aim to provide graduates with scientific knowledge, skills and attitudes to address health and disability needs of the client, family and community system in which they operate' (p2).

Some of the key elements now being identified by the professional board as those that aspiring professionals will need to allow them to practice successfully in a changing world are those things which professional schools are often least able to teach within the

boundaries of a traditional curriculum. To possess a bank of knowledge or technical mastery over a set of discipline specific skills is insufficient if not accompanied by an ability to utilise these skills within changing contexts, sound thought processes and an understood value system. This idea leads to a need to look for a definition of a professional that goes beyond the idea of skills and knowledge, but rather to a professional as someone who has developed the resources to cope with change and to apply their skills in such a way that gives them a sense of mastery over the unexpected. So there is a different process of knowledge use that allows an individual to move from the position of novice professional to expert and as such gives them a better standing within the professional group they affiliate themselves with. Technical expertise is insufficient to fully describe the nuances or art that truly qualifies expert practice.

To understand how these factors are developed there is the need to broaden the view of where and how learning occurs for novice professionals. For the purposes of this study this means looking at a more situated social perspective on learning.

2.3 Using Lave and Wenger as a conceptual framework

Jean Lave (1996) reminds us that teaching 'is an object for analytical enquiry, but not an explanation for learning'. Teaching a specific content does not guarantee it will become knowledge for a student. Learning by nature implies here, an understanding. For physiotherapy students the idea of the learning environment needs to be expanded to include both the formal lecture hall environment as well as the onsite teaching of skills and procedures that occur at clinical sites. However, even the range of formal teaching activities utilised in all these contexts does not fully explain the understandings of the use of their skills and abilities to evaluate their practice that students learn in order to cope within an unpredictable clinical environment. To understand student learning, whereby propositional knowledge and skills are developed into a sense of knowing, we need to look deeper into social practices that come into play within the clinical arena.

Together with Etienne Wenger, Jean Lave (1991) develops the idea of how various communities of practice exist, each of which share a common structure in their sense of purpose, role in society, and function. At various stages people may move into such a community and take up a position of newcomers within that community. As they do so they assimilate both the practices of the community as well as its beliefs, values and accepted norms of behaviour. By engaging in the practices of the community they move from the boundaries of the community, to a point where they are more entrenched within the

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structure. This process of legitimate peripheral participation allows individuals to move from a position of newcomer or apprentice to that of master or expert practitioner within a specific community or social learning system. .

Within Lave and Wenger's (1991) framework, students are understood to learn by engaging with the practices of the communities in which they are situated. Through interaction with peers and masters and by observing how others who are not part of the community directly interact with it, students gain an understanding of what makes up the practices of the community. The practices themselves therefore make up the students' 'curriculum' and provide the framework for what there is to be learnt in order to gain an understanding of what the whole community or society is about. With this idea Lave and Wenger present a clear distinction between a 'learning curriculum' and a 'teaching curriculum'. A learning curriculum is made up of the opportunities that present themselves in practice and allow for the development of new practice. When a teaching curriculum is imposed on a set of socially constructed communities, an outsider to the process then mediates what is learnt.

Ultimately for Lave and Wenger (1991) learning implies becoming a 'full participant, a member, a kind of person' (p53). They describe a process in which learning is an aspect of changing participation that occurs in a collective, socially interactive environment. Professional learning then becomes not merely the acquisition of a set of recognised skills but rather the development of an identity within a specific social framework. They note 'learning thus implies becoming a different person with respect to the possibilities enabled by these systems of relations' (p53). However, what Lave and Wenger never fully address, is the access of participants to the learning curriculum. To become full participants all newcomers should have access to, and participate in, increasingly more expert roles within a given social structure. The reality of the workplace differs to this. Access is often not equitable and 'old timers' hold control over what newcomers on the periphery can engage in and thus learn.

Hence as Lave (1996) reports, 'the who you are becoming shapes crucially and fundamentally what you "know"' (p157). Ultimately then, the knowing professionals have is 'a relation among communities of practice, participation in practice, and the generation of identities as part of becoming a part of ongoing practice' (p157). This must raise the question of whose knowing is being recreated by the engagement in specific practices.

Within these ideas lie some of the key limitations with Lave and Wenger's model. The communities of practice described by Lave and Wenger (1991) present an idea of a rather

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narrow grouping of individuals who exist within a specific set of conditions. They provide no opportunity to examine the identity of members of that community, be it tailors midwives or butchers, outside of their specific work context. They are defined solely by their position or participation within that community and the possibility that individuals may occupy or be part of multiple communities simultaneously is ignored. There is also no clear consideration of the person before they enter the community and what understandings they bring with them into this framework. Hodkinson and Hodkinson (2003) acknowledge the limitations of Lave and Wenger's model in their research into work place learning. Rather than seeing the individual as completely defined by his or her workplace community, they develop an idea of integration of past experiences in various fields informing their identity. So whilst they can 'step outside the workplace, they cannot step outside the social structures that are part of their habitus and identity' (p5).

In using the terms 'field' and 'habitus', the Hodkinson's work (2004) develops Lave and Wenger's model through integration of the theories of Pierre Bourdieu. From their perspective, the idea of a community of practice is perhaps better conceptualised as a learning field. This implies a broader scope of practices and social interactions than Lave and Wenger's examples allow. This does not discount Lave and Wenger's work, but merely suggests that this may not always adequately describe the make-up of various workplace situations .This also allows for people to occupy different fields. Drawing further on Bourdieu, Hodkinson make reference to the fact that the positions individuals hold within the field they occupy are determined by the value they bring to that specific community or field. This is the notion of capital. Essentially the greater an individual's capital is within a specific framework, the greater their value is to the make-up of that community. This capital will increase their standing within a community and give them more power or control over others within the community. So individuals within a specific community are not all equal and do not have equal access to the knowledge structures and resources of that community. Thus relating this back to Lave and Wenger, this must be seen to imply that full participation is therefore, not achievable for all.

Lave and Wenger's initial assumption was that all newcomers work towards, and ultimately achieve a position of central participation within a specific community. As such they ultimately become 'masters' of the practices of that community. Through this position of full participation their identity is forged. Handley et al (2006) critique this notion and raise important questions about the dynamics of power that exist within communities. Not everyone aspires to, or achieves full participation within the communities in which they operate. Participation may always remain peripheral or even marginal. As they point out,

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even in *'Situated Learning'(1991)*, Lave and Wenger's example of the meat cutter industry shows how powerful members can in fact restrict access of newcomers to all aspects of participation within the community, thus keeping them on the periphery of the practices forever. Constraints on newcomers are often more pronounced when the newcomers are seen to question or threaten the existing practices of the community. However, Lave and Wenger never really explore this power relationship fully.

The idea of position and level of participation within a specific community ultimately impacts on the development of identity for individuals. Handley et al (2006) go further to discuss how it is through 'participation in communities that individuals develop and possibly adapt and thereby construct their identities and practice' (p645). So we participate over time in multiple communities 'each with different practices and identity structures' (p647), resulting in a 'continual negotiation of self within and across multiple communities of practice' (p648).

Handley, as with Dall'Alba, stress that it is in fact 'praxis' or understanding and meaningful engagement in social communities that really defines the idea of legitimate participation. Practice alone is insufficient to forge an identity especially if this participation is marginal or peripheral.

Lastly, all a person's experiences make up their disposition or habitus. It is this, which tacitly guides their actions. It cannot be removed from social practices and is defined by past experiences and relationships.

2.4 Clinical Education Model

Within higher education, undergraduate clinical training needs to be explored as a social practice through which first time students enter as novices into environments selected for the learning opportunities they present. Very often the sites chosen are done so for the skill reinforcement and knowledge areas they represent. The consideration that it is within these sites that students, in their position as newcomers, are socialised into the profession through the process of what Richardson (1999a) refers to as 'professional socialisation', is largely ignored. Taylor et al (2007) in writing about the professional training of pharmacy students use this definition by Hammer (2003) to sum up the process: 'professional socialization involves transformation...the transformation of individuals from students to professionals who understand the values, attitudes, and behaviours of the profession deep in their sole. It is an active process that must be nurtured throughout the professional's / student's development' (p84).

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A clinical site is by its nature a place where what students are learning will go beyond skills, to values and decisions. As such, consideration should be given to the role modelling given to students at clinical sites. Students' ongoing professional behaviours, in essence that which will identify them in later years as physiotherapists, are initiated in their student experiences. The interactions with their peers, educators and clinicians will shape what they interpret as necessary to their own practices. Richardson (1999a) concludes her work on professional socialisation with the important reminder that 'undergraduate education strongly influences the formation and development of a professional paradigm' (p465). A notion which emphasises that higher education should be concerned about the quality of student physiotherapists' professional socialisation in undergraduate programmes if they are committed to developing the full potential of physiotherapists in the delivery of healthcare.

If Lave and Wenger's theories are to have currency for the training of physiotherapy students, there is a need for the departmental structures to increase the value given to the development of a sense of being in students. Drawing on Barnett and Dall'Alba's ideas on professional development, this sense of being becomes increasingly significant and perhaps as important as the acquisition of mere propositional knowledge and skill. As educators we need to consider the scope of the social framework within which physiotherapy students participate. The diversity of clinical settings and the multiprofessional nature of the interactions that occur within these frameworks are significant. It requires from students a confidence, a clear recognition of the boundaries of their professional scope of practice and awareness of their own individual limitations within that practice, in order to forge a place for themselves within the clinical arena. To do this they will need to be given the opportunity to participate within a physiotherapy community of practice that itself gives value to these things. This is the difference between the mere technically proficient student and the student who has a better sense of the application of knowledge. A student who can adapt and relate to a variety of contexts and individuals, and who presents themselves in a certain manner within their training.

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This was highlighted in a study by Strohschein et al (2002) who reviewed various clinical education models used in physiotherapy training. The authors emphasised how a model which provided a solid educational foundation combined with the reinforcement of specific attitudes and skills was critical for students' professional growth and for the ultimate survival of the profession. However, they did acknowledge that whilst there seemed to be consensus as to what attributes and attitudes assisted professional growth, there was no foolproof model of obtaining the acquisition of these. Work by Vinette Cross (1999) and Cross and Hicks (1997) has highlighted the characteristics listed by clinical educators and clinicians as

to what best describes a competent, well rounded physiotherapy student. The attributes listed show a balance between measurable behaviours such as the execution of specific assessment and treatment procedures, a use of theoretical knowledge in planning and more generic attributes and attitudes associated with professional practice such as good communication, organisational skills, time management, empathy and confidence amongst others.

There is however, a recognised conflict that this definition of competence causes when it comes to assessment procedures. In a four-year study of various professional courses, including physiotherapy, Le Maistre et al (2006) acknowledges the way that assessment still focuses on explicit learning as opposed to attitudes and personal qualities. They observe how experienced educators are able to recognise the so-called intangible attributes of professional behaviour and are thus best placed to scaffold and guide students into independent professional practice. What their work does raise, is the dual position that these clinical supervisors find themselves in. On the one hand, they are there as mentors guiding students through stages of professional growth and practice; on the other they are tasked with the responsibility of assessment and evaluation of the same students with whom they have worked and developed relationships over a period of time. There is a potential tension here between the responsibility they have to their professional community, on whose values they are assessing the student or newcomers readiness to access to this professional community, and their responsibility to their higher education employer who have set specific assessment criteria. Importantly Le Maistre's (2006) study raises the point that the evaluation process can 'distort newcomers activities by inflicting on them a pressure to conform' (p351) and that only 'truly self-confident students will risk "rocking the boat"' (p351). From a community of practice perspective whilst their activities and participation as students has been legitimate, they are still largely peripheral to the reality of the professional community.

This dual role of the clinical educator discussed in Le Maistre's article highlights points raised by Wenger (2000) about the positioning of individuals between communities and the complexity of their role. In a shift from the original ideas that saw communities as isolated units, he acknowledges how the very existence of these different communities creates the notion of a 'boundary'. However, he stresses that this boundary should not be seen solely as a point of separation between different learning systems, but rather as 'areas of unusual learning, places where perspectives meet and new possibilities arise.'(p233). The processes that take place at the boundaries of communities where key experiences start to diverge are in fact those that strengthen those specific communities. To do this, the processes need to

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be managed and it is here that Wenger's (2000) reference to brokers who are able to bridge the boundary between communities calls to mind the position of the clinical educator. For Wenger a broker is the individual who can 'introduce elements of one practice to another'. Brokering takes place in various forms through the creation of connections and the movement of knowledge. Importantly he notes how it is often done through the creation of a relationship between individuals. This definition clarifies the position of the clinical educator who acts as both a mentor to students and an assessor for higher education. So developing boundary infrastructure 'means paying attention to the people who act as brokers' (p236).

Strohschein et al (2002) also allude to the processes that students need to develop to assist in their professional development. They remark that a strong identity comes through the use of reflective practices, a critical evaluation of their own abilities as well as others who inform the general practice of physiotherapy and a commitment to lifelong learning. This idea of development among physiotherapy students is further highlighted by Lindquist et al (2006) who in their study into the socialisation of students into the profession of physiotherapy find reflective practices, communication with others, skill level and the ability to search for evidence as being essential for professional growth. Drawing on Lave and Wenger, they also emphasis that purposeful socialisation, as occurs within clinical training, can guide students towards a better understanding of their chosen profession and recognition of their own identity within a healthcare framework.

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Barbara Richardson (1999b) reiterates that beyond this use of reflective practices and commitment to learning, graduates need the confidence to apply their skills and problem solving in a variety of socially distinct contexts throughout their careers, as well as a sense of advocacy. This implies a clear understanding of the distinct role of a physiotherapist and their scope of practice within the broader definition of 'Rehabilitation professionals or Allied Healthcare workers'. This in the South African context, with significant changes to the broader healthcare framework being devised, will be of critical importance to the survival of the profession as an autonomous body.

If the idea of situated learning as a model of meaningful engagement which fosters understanding is to be accepted as a key way in which to impart a sense of identity or being into students, it places a significant responsibility on the Physiotherapy Division. This responsibility is to ensure that the educators, academics and clinicians that the students come into contact with throughout their training have 1) a clear idea of their influence on student development 2) are in fact providing the type of meaningful role modelling that the department would advocate. It also extends to a responsibility to ensure that the nature of

the practices in which students will participate in, are representative of the healthcare environments they will encounter as part of their working life.

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3. Methodology

In the Methodology chapter, I present a concise statement of the research question and sub-questions, and an overview of how I used a case study method to respond to the research questions. I outline the research design, the ethical considerations, and show how I drew on the theory of communities of practice to design this project.

In setting up my research around the training of physiotherapy students within a specific South African context my main aim was to investigate the development of professional identity within final year physiotherapy students. The research was planned to answer the following questions:

1. What characteristics do final year physiotherapy students consider to be encompassed within a professional identity?
2. Where and how students do students report that these characteristics are acquired?.
3. What influence(s) do the key role players in physiotherapy undergraduate training feel they play on the development in student's professional identity?.

In order to best address the main research questions that arose, it was decided to approach the research using a case study format. This was feasible because of the tightly bounded framework given to the topic. The framework was created by the decision to choose one particular group of students for study purposes. Data was generated within a very narrow time frame. There were limited opportunities for the students' positions to evolve or their opinions to change and develop during the data generation period. What was required was an understanding of their position at that point in their undergraduate training as physiotherapists. Using Robert Stake's (1995) idea of case study development, this specific study can be viewed as an 'instrumental study' with the groups carefully chosen for the opportunities they presented to best understand the research questions.

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Drawing on Lave and Wenger's (1991) notion that learning, and ultimately knowing, is seen to be the creation of an identity formed through participation in a specific social framework (p115); the research sought to understand what students were in fact learning and drawing on to frame their development as physiotherapists. For this project, it was important to see if the students were able to differentiate between what they were being taught from a formal pedagogical perspective and what they were learning through being involved in the practice of physiotherapy, and how they constructed their own identity around this. The social frameworks used for the site of learning were the clinical practice areas that the students worked in through their undergraduate training. These sites were chosen as they represented the key clinical areas of physiotherapy.

For the purposes of the research, some of the individuals who would provide learning opportunities for the students needed to be identified. Using Lave and Wenger's (1991) idea that adept or master practitioners are positioned at points of centrality within communities, I selected the people supposedly best positioned to provide a model for student learning and development at various stages of their undergraduate training. This selection does not imply that learning opportunities are limited to student interactions with these role players. Learning, as noted by Hanks in the forward to *Situated Learning* is 'distributed among co - participants, not a one person act' (Lave & Wenger 1991, p15) and should therefore occur through all the interactions that occur as part of legitimate participation, be it with a peer, a master practitioner or patient. However, the research needed to draw on specific role players, especially situated within clinical sites that would be key to the idea that within all communities of practice there are masters central to the learning of individuals.

3.1 Research Design

The initial student group chosen to form the basis of the study was the fourth year physiotherapy class, due to graduate in December 2011 (n=47). This group was chosen on the premise that as imminently potential graduates they should have a clear idea of the expectations of their chosen profession, with respect of skills, knowledge and attitudes. It was also thought that they would be able to verbalise and reflect on how they had developed their understanding of these expectations during their undergraduate training. These were supposedly newcomers to physiotherapy who had been socialised into the profession through the process of legitimate participation and were now a step closer to full participation within the physiotherapy community of practice.

Three methods were developed in which to generate the data.

1. Questionnaire.
2. Focus Group.
3. Individual interviews with specific role players in student teaching and learning.

3.1.1 Questionnaire

The questionnaire was designed to fulfil a number of basic initial steps in the research design:

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- To establish some initial demographic data of the student group, get a basic sense of what had brought them to study physiotherapy and to gain some insight into their definition of physiotherapy.
- To get an overview of the attributes or practices they felt would be most necessary for their success as practising professionals in the future. This drew from the existing literature on professional development especially within physiotherapy.as a basis for a deductive consideration of the generated data.
- To understand whom students saw as having the biggest influence on their professional development thus far, and to establish whether or not this linked to my own initial ideas about whom the key role players in student development were.
- To gain some sense of the most positive and negative experiences of the students' undergraduate training.

The questionnaire was piloted on a volunteer group of third year students. Eight students participated in the piloting, having been recruited via an email request. The piloting was aimed mostly at ensuring clarity of the questions, as well as obtaining a sense of how long students might need to complete the questionnaire. Feedback was requested from the group after completion and as a result the wording of some aspects was adapted for the final questionnaire (Appendix1).

For the fourth year group (n = 47) a specific time slot was allocated in which to administer the questionnaire. This took place at the start of the second semester, after the students returned from vacation. The time was set so as not to clash with any other lectures, nor did it interfere with clinical hours. An initial notification of the time and the purpose for the meeting was posted on the student website, VULA, with a follow up reminder closer to the date. Some additional information around class matters was to be passed on during this time slot as well as the questionnaire. The students were informed of the purpose of the questionnaire and the study, both verbally by the researcher and in writing. Informed consent to participate was obtained (Appendix 2).

From the group (n=47) only 40 respondents completed the questionnaire. Two students were out of town on a clinical placement at the time, two declined to complete it and three students were absent from the session for unknown reasons.

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3.1.2 Focus Group

Although the questionnaire was designed to provide some initial insights into students' understandings of the physiotherapy profession and what was shaping their identity within it; a more in depth description of their experiences and understandings was obviously necessary to fully answer the research questions.

The initially proposed methodology had laid out the idea that three or four focus groups comprising of around six students each would be held over consecutive weeks and conducted by the same interviewer. This would allow for consistency in approach and emphasis and allow her to explore common themes, which potentially would develop within the group discussion. The focus groups, as with the questionnaire, would be voluntary, drawing from the initial cohort of students. However, a smaller than expected response to the request for volunteers necessitated a change in design. Although 40 individuals completed the questionnaire only eight individuals agreed to participate in a deeper discussion around the topic. Therefore, fearing possible non-attendance on the day by the volunteers, it was decided to conduct one single focus group.

The focus group took place two weeks after the questionnaire was administered. A meeting was held prior to this between myself and the appointed interviewer. We discussed the main points that appeared to arise from the questionnaire and decided on the key areas to be addressed and drawn out during the focus group The focus group was to be a semi-structured scenario aimed at a deeper, richer understanding around four main themes;

- Feedback on the ratings the students had given the recognised components of professional competence and a more meaningful insight into their understanding of what the components entailed.
- What students felt they had learnt from clinical practice and to explore some of their experiences within this context.
- The key role models they had encountered in their training and what they had learnt from them.
- The definition of a physiotherapist as understood by the students.

Unexpectedly, two additional students arrived at the venue and so the focus group was conducted with ten participants. Eight of the group were female and two were male. To ensure the anonymity of the participants, the group were given 'colour reference names' by the interviewer and, where necessary, referred to as this when questioned directly. The

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focus group was audio taped and this was sent for transcription after the session. In the final transcript the participants are identified simply by gender.

After reviewing the transcript, I was concerned that the participants and interviewer had not adequately explored two of the main identified themes of the focus group. The first issue was around what was learnt from the specific groups of role models they encountered within their training and the second around what students actually understood by communication skills. To avoid potential gaps in analysis, two additional follow up questions were sent out via email to all the focus group participants (Appendix 3). In order to maintain anonymity, these were sent and received by the interviewer and then passed back to the researcher with the names removed. From the ten students mailed, only three responded to the additional questions.

3.1.3 Interviews

The final phase of the research design was interviews with representative role players in student training. This phase presented an opportunity to triangulate the data obtained in phase one and two, and potentially validate the perspectives of the students. In addition, as Stake (1995) points out, in qualitative research, triangulation often allows the researcher to present different interpretations of a specific case, as opposed to simply confirming one single idea.

As indicated, the role players seen to be instrumental to student learning were to be chosen from the Physiotherapy Division's academic staff, clinical educators employed on a permanent basis by the division for clinical as opposed to classroom teaching and clinicians from one of the student's clinical placements. Following careful consideration the individuals were chosen for the following criteria:

- Academic: Senior professor responsible for the teaching of Ethics and Professionalism both to physiotherapy and medical students. In addition, because of his position and involvement in various committees both at a Faculty and at Health Department level, he is perhaps best placed to understand the direction physiotherapy as a profession will have to take to maintain its position within the South African Health Care context, and the impact of this on higher education.
- Clinical educator: Very experienced clinical teacher with involvement in student clinical supervision for over ten years. She is always well received by students. In addition she supervises students from second through to fourth year, giving her a

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clear understanding of the development steps students need to go through in order to exit the undergraduate programme as competent, novice professionals.

- Clinician: Senior clinician at a tertiary level hospital working in a specialised Intensive Care Unit (ICU). Whilst clinical teaching is not formalised as part of her job description, she interacts with almost all the fourth year students as they work within the ICU units of the institution. All fourth years complete an ICU rotation as part of their final year clinical programme. The clinician is well positioned to comment on the overall range of student abilities, as they near the point of graduating and provide her perspective on them as almost independent practitioners.

The same interviewer as the focus groups conducted the three interviews. All were done at the convenience of the participants. Informed consent was obtained prior to the start and the interviews were then transcribed for analysis. A set of semi-structured questions was provided by the researcher to provide a framework for the discussion (Appendix 4). The questions considered some of the following aspects:

- The role players' own notions on professional identity.
- What attributes they felt were important for students' ongoing career development and success?
- How these attributes might be developed?.
- What they thought their role was in developing this within the student population?.

3.2 Ethical Considerations

This study adhered to the Declaration of Helsinki (Seoul version, 2008).

Prior to beginning the study, following University regulations regarding research activity, ethical approval to conduct the study was obtained from the following bodies; Department of Education Research Ethics Committee as well the Faculty of Health Sciences Human Research Ethics Committee (FHS HREC).(Appendix 5) . As the study involved both the involvement of students and staff from the University, specific approval had to be obtained from the University's Executive Director of Student Affairs as well as the Director of Human Resources. This were requested and granted prior to beginning the research.

Lastly, once it had been decided which clinician to interview in the final stage of the research, clearance to interview one of its physiotherapy staff members was requested from the hospital management where the clinician practiced.

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At each stage of the research, participants were asked to sign an informed consent form, agreeing to participate in that particular phase of the research, be it the questionnaire, focus group or interview component (Appendix 2). Along with the informed consent, participants were provided with a detailed information sheet explaining the purpose of the study and their role in that particular phase. For the initial questionnaire, participants were assured of their anonymity in the process as well as the fact that any information shared would remain in the possession of the researcher and used only for the purposes of the study.

The same anonymity could not be provided to the focus group participants, but they were assured of confidentiality. Throughout the focus group they were not referred to by name. Transcription of the focus group therefore, could not attribute specific comments to any one individual. This ensured that as students still registered within the Division of Physiotherapy, they would not feel compromised by any comments they had made. Focus group members were asked to respect the confidentiality of the other group members and limit discussions about what had transpired in the session after they had finished. Further assurances that the data obtained would only be used for the purposes of the study were given.

A similar information package and reminder around confidentiality was provided for the staff members and clinician interviewed in phase three.

The biggest potential area of conflict in conducting this research was my own dual role as the researcher and clinical educator. As a clinical educator within the division, and course convenor for aspects of the undergraduate physiotherapy clinical programme, I was very familiar with all the students in the final year class chosen as the basis for the study. As clinical educator, I had supervised some of them on clinical placements during their third and fourth year. As course convenor I had knowledge of student marks and clinical performance, as well as in some specific cases, information regarding aspects of their lives, which may have influenced their clinical performance. So whilst the questionnaire was easy to administer and analyse anonymously, drawing these students out in an interview was always going to present some challenges. In acknowledging this position, I realised that this would potentially inhibit the student participants' honesty in discussion, especially when this could have involved being critical of certain aspects or individuals within the programme. Similarly, my own knowledge of specific individuals could have lead to a biased line of questioning, initiating specific topics with certain students because of prior knowledge I had of them and their experiences. This would have ultimately compromised the validity of the findings.

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Because of this ethical issue, an independent facilitator was recruited to conduct the focus group and the individual interviews. The facilitator used is a trained social worker, experienced in small group work. In addition she participates in the Becoming a Health Professional (BHP) course run by the Faculty of Health Sciences for all first year students. This course explore issues around professionalism, reflective practices and multiprofessional involvement at clinical sites. I felt that this gave her enough insight into the key issues of the research to inform the focus group and interviews. In addition, I believed that a neutral, skilled interviewer would provide an opportunity for students to express themselves more openly and hopefully provide more reliable data for analysis and interpretation.

3.3 ANALYSIS

The process of data generation was completed over a period of approximately seven weeks.

Analysis took place in two stages. Information from each separate component of the study was needed to inform the subsequent section. As the time line between each phase of the study was short, an initial informal analysis was required merely to gain a sense of the data and decide on the key areas to take forward from the questionnaire stage to the focus group and ultimately to the interview.

This was achieved in the following ways. The entire questionnaire data was entered onto an Excel spreadsheet and a deductive 'first pass' analysis of the main trends was made. Key trends in both the quantitative and qualitative data was exposed in this way and used as the baseline to frame the initial focus group discussion. The audiotape of the student focus group was transcribed and a deductive first pass overview of the data generated was obtained..

From this basic deductive run through of the focus group, the different levels of engagement by the students could already be noted. This also allowed for the immediate awareness of lack of clarity over the two issues that were followed up on via email by the researcher.

More detailed analysis took place once all the data had been generated.

3.3.1 Questionnaire analysis

From the Excel spreadsheet, the questionnaire data was analysed using Statistica. The statistics generated looked primarily at the ratings given by students to various key concepts. Median values and ranges were calculated for questions number four, nine, ten, eleven and

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twelve. The data obtained for these questions was broken down further to distinguish between male and female participants and to look for any comparative values. The main descriptive elements around students' positive and negative experiences (Appendix 1: Questions 11 and 12) were grouped in themes to allow for easier analysis.

Table 1: Themes around positive experiences

Impact / response of patient
Supportive supervision / positive reinforcement
Integration of theory into practice
Development of self-confidence / self-belief
Other

Table 2: Themes around negative experiences

Lack of clinical support / role modelling
Overly critical / unfair supervision
Poor results / feedback
Unprepared for clinical practice at start of third year
Other

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3.3.2 Focus Group Analysis

As mentioned above, once the focus group had been transcribed, a deductive read through allowed for recognition of the key areas of discussion. Within this run through the obvious links to Lave and Wenger's ideas on learning and identity formation where highlighted as well as aspects linked to physiotherapy specific literature. This initial analysis allowed for early refinement of the interview questions that followed.

To gain a deeper understanding of the data a more detailed, inductive interpretation was called for. To do this the transcript was looked at systematically line by line. Within each relevant student comment, key words and paragraphs were highlighted. In this way I was able to identify more accurately comments and themes raised in the literature that spoke directly to the research questions. This also highlighted areas in noticeable contradiction to my own and the literature's view on professional development.

From this breakdown, five recurrent themes were identified as emerging from the data.

Table 3: Focus group themes.

Indicators of a traditional, medical model of professional role
Indicators of a developing professional notion
Positive influences and role modelling experiences
Negative influences and role modelling experiences
The rules of engagement / learning

They combined notions from the literature and in part what had been investigated from the questionnaire. What also emerged were the real boundaries of the social framework in which students were operating. All the paragraphs and statements correlating to each theme were entered onto an Excel Spreadsheet with the line numbers as reference. Statements which co-existed in two or more themes were highlighted for easy referencing. This spreadsheet was used as the reference document for the Discussion chapter that follows.

3.3.3 Interview analysis

A similar approach was employed with the interview data. All the interview data was transcribed and line numbers added to the document. The data was then simply read through looking for any obvious similarities or differences, as well as links to the student commentaries.

A more detailed, inductive process was only started once detailed analysis and some write up of the students' data had been done. This approach allowed for a clearer picture to be obtained from the student information, before systematically looking for links to the interview data. It was hoped that this would define the ideas from the focus group better and allow for substantiating (or negating) positions within the information of the interview participants to be explored.

As with the focus group data, the detailed systematic analysis was carried out through a line by line identification of key statements and paragraphs of each interview. What I was looking for was the participant's ideas on professional development, links that this might present to the literature framework and evidence of consistencies with student thoughts. These comments were grouped in four emerging themes, some of which correlated to themes of the focus group analysis.

These statements were entered onto an Excel spreadsheet under the specific themes, with line numbers as reference. Comments which fell into two categories were highlighted. A separate sheet was completed for each interview although the same themes were used.

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Table 4: Interview themes

Participant's own definition of identity – in contrast to the student's developing notions
Learning opportunities provided to develop professional identity
Critical elements to developing professional identity
The rules of engagement / learning environment

Once this spreadsheet had been developed the data could be used to inform the discussion around the focus group which had, in part, been written up.

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4. FINDINGS AND DISCUSSION

'It's all about the marks'

In this chapter I describe the findings of this research, using respondents' voices wherever possible to give the reader access to student and educator perspectives. Following the presentation of the findings of the project, I offer a discussion of these findings, drawing out those which were expected and unexpected, and the possible implications these findings may have for the curriculum.

PLEASE NOTE: For the purposes of this section the following abbreviations apply in respect to the direct quotations from the data

- **FG – Focus Group**
- **FQ – Follow up questions to FG**
- **INT 1- Interview 1 with Academic**
- **INT 2- Interview 2 with Clinician**
- **INT 3 – Interview 3 with Clinical Educator**

Defining or conceptualising ones' own professional identity provides a challenge even for mature professionals. It is easy to simplify the description into one that recognises the outwardly assessable components of skills and knowledge, ethical behaviours and communication abilities. What this lacks is the depth of self-awareness that the term 'professional identity' as opposed to mere 'professionalism' needs to encompass.

As a physiotherapy educator, I see my own identity as having been forged in the overlapping roles I have filled initially as a clinician, then a clinician involved somewhat in physiotherapy training and now primarily as an educator within the clinical setting. The creation of this identity has been a journey of self-discovery, evolving from key events, interactions and encounters.

Having come to a place of recognition of my own professional identity has driven the main objective within this research: to understand how current physiotherapy students develop an understanding of what professional identity means and how they acquire the behaviours, values and self-awareness which will make them recognisable to both the physiotherapy community and the society in which they will eventually practice. Considering the dynamics of the clinical curriculum, the support provided by clinical educators, the time spent on teaching reflective practices and professional behaviours across the Health Sciences curriculum, my expectations were that the students would have a strong understanding of

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what would constitute their professional being. With Lave and Wenger's model of situated learning in mind, I drew on my understanding that students would see their clinical training not only as an opportunity to integrate their skills into practice, but also as a way to learn how to think, act and present themselves within real clinical settings.

However, right from the onset the data generated by the questionnaire seemed to pose some challenges to the conceptual framework behind my research questions.

4.1 Questionnaire Results

The study group comprised 40 participants; with 28 female and 12 male participants. The age of the group ranged from 20 to 31 years with a mean age of 22 for both male and females. Of the group eight had been involved in some other studies prior to entering the physiotherapy programme, with three graduating from these programmes prior to admission to physiotherapy.

Of initial relevance were the factors that had influenced the group's decision to study physiotherapy (Appendix 1: Question 4). When asked to rate the 13 different options presented on a scale from one to ten, with one being the most important factor and ten the least, the single most important factor emerged as 'wanting to help people'. This was indicated by 37 respondents, with a median rating of one. However, when looked at more closely the female participants definitely saw this as more important (Median 1) compared to males (Median 2.5). Male students had more of an interest in working with sports teams and fitness than their female counterparts. What also appeared to carry more weight with male rather than female participants was the idea of financial reward associated with their chosen profession. In fact, statistically the only significant difference in the ranking of scores between males and females was with regard to 'Earning potential' (Mann Whitney U statistic=56.5, adjusted z=2, p=.047).

Although within the scope of the study we did not examine other career choices available to this group or what information had been provided to them about future potential earnings, there is an acknowledged sense that belonging to a recognised profession brings with it social standing and often substantial income. Across the entire group, no one indicated that they had entered physiotherapy as a second choice career option, seemingly suggesting that they had some invested interest or understanding of their career decision and chosen professional pathway (See Figure 1, below).

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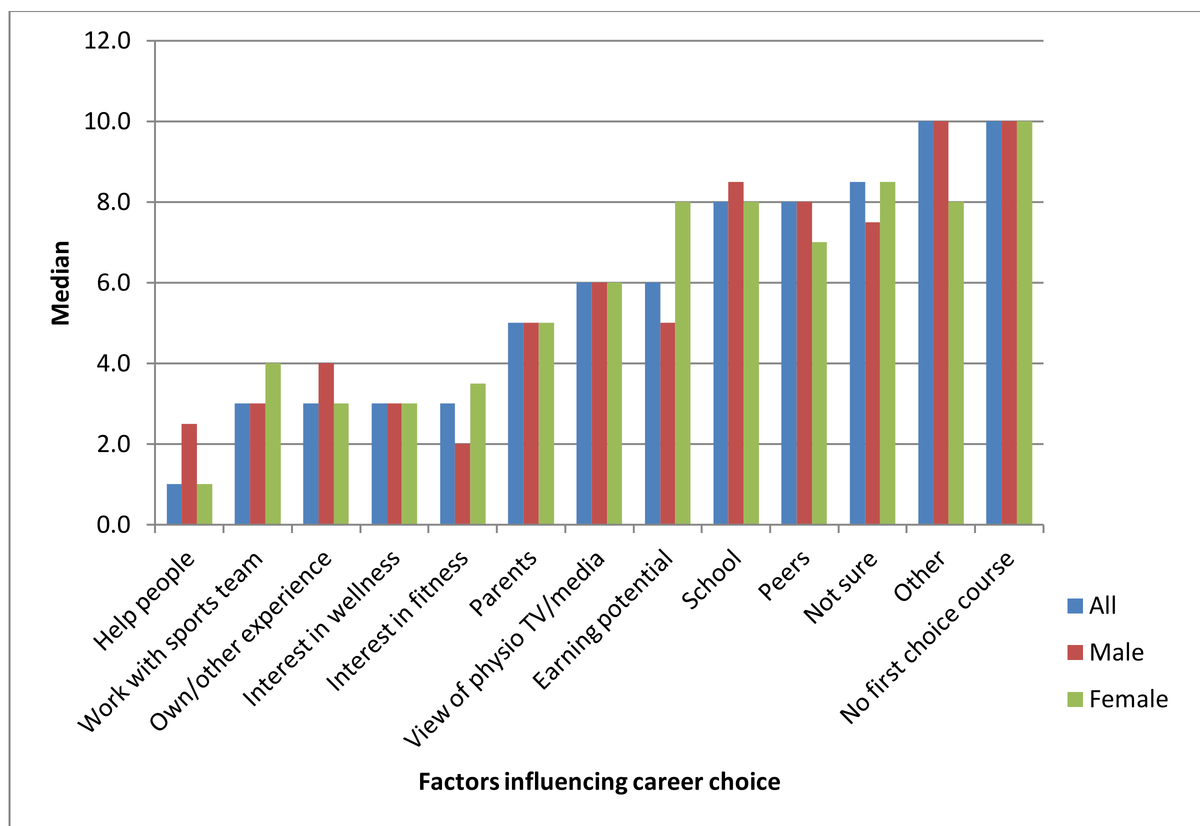

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FIGURE 1: Factors influencing choice of physiotherapy as a career

Of some concern was that despite the fact all the students had indicated that physiotherapy had been their first choice career, only 13 of the group seemed to have had any experience of physiotherapy prior to coming into the course, either as work shadow / patient. This involvement had been largely in a private practice setting, which gives very limited perspective of the scope of practice physiotherapists engage in. It is certainly a very different context to the learning environments in which undergraduate student physiotherapists work. Interestingly the themes that emerged when students recalled their memories of these encounters showed on one level a recall of techniques and exercises, but also a connection with the positive way the physiotherapists seemed to engage with their patients and their enthusiasm for their profession.(Appendix1: Question 7)

What stood out immediately from the questionnaire and gave an early indication as to the positioning of this particular group with respect to professional growth, were the ratings given to the recognised building blocks of professional competence (Appendix 1: Question 9). Drawn from the literature around professional development in physiotherapy students (Lindquest: 2006), participants were asked to rate from one to four, with one indicating the most important the following (See Table 5, below):

- Technical skills
- Communication
- Reflective practices
- Evidence based practices

Table 5: Median ratings of building blocks of professional competence

	All	Male	Female
Reflective practices	4.0	4.0	4.0
Use of evidence	3.0	2.0	3.0
Technical skill	2.0	2.0	2.0
Communication skill	2.0	2.0	2.0

Given consistently low ratings were reflective practice and evidence use, with technical skill and communication seen as the most necessary requirements. These perceptions were used as key areas of exploration in the focus group that followed.

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4.1.1 Role models and experiences.

Within questions ten, eleven and twelve of the questionnaire were the more direct links to Lave and Wenger's framework of situated learning. They drew from the idea that within their training students are exposed to role models or masters of practice. These individuals serve as teachers of the practices of the community in which students are participating and that their interactions with these role models forge their understanding of acceptable practices, behaviours within the community. Whilst these ideas would be explored more within the focus group discussions, the questionnaire was designed to provide an overview of whom the students saw as role models as well as what their most positive and negative experiences in training had been.

There were clear ideas presented as to whom the student participants saw as relevant role models for their career development. Role models who had provided positive reinforcement were rated on a scale of one to five, with one being the most influential person and five the least. Median ratings were calculated for all options provided (Figure 2, below).

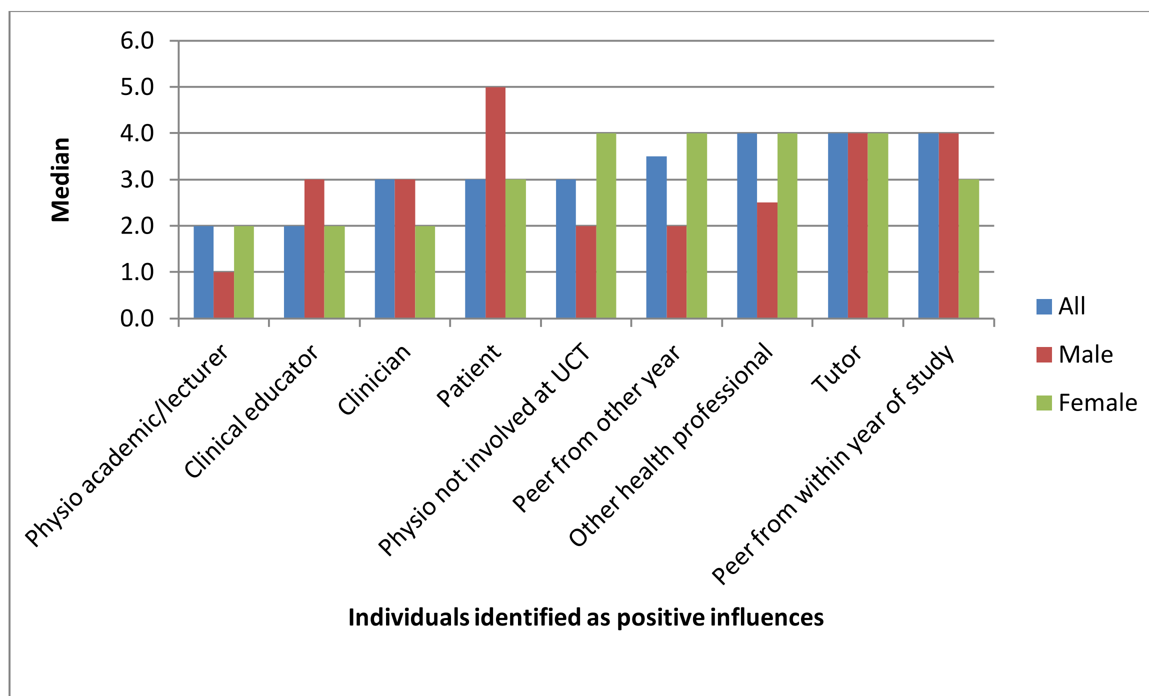

Figure 2: Individuals identified as positive influences on career choice

From the graph physiotherapy lecturers and clinical educators were rated most influential when looking at reinforcement of physiotherapy as a career choice amongst the participants. Clinicians followed this quite closely. The positioning of these three groupings by the participants provided further justification of the identification of representatives from these groups as interview subjects later in the study.

The last two items within the questionnaire provided useful qualitative indicators of student experiences. To aid the analysis these findings were broken up into themes (Chap 3: Section 3.3.1: Table 1 and 2).

Students' positive experiences were strongly linked to patient response. They often evidenced this as being linked to patient recovery; this perhaps feeds back into ratings of technical proficiency as highly important and justifies reliance on this as a measure of success and competence. The students appear to need strong support and positive feedback about themselves in clinical practice to gain the most out of the placement. Both of these appear to result in the development of self-confidence (Figure 3, below).

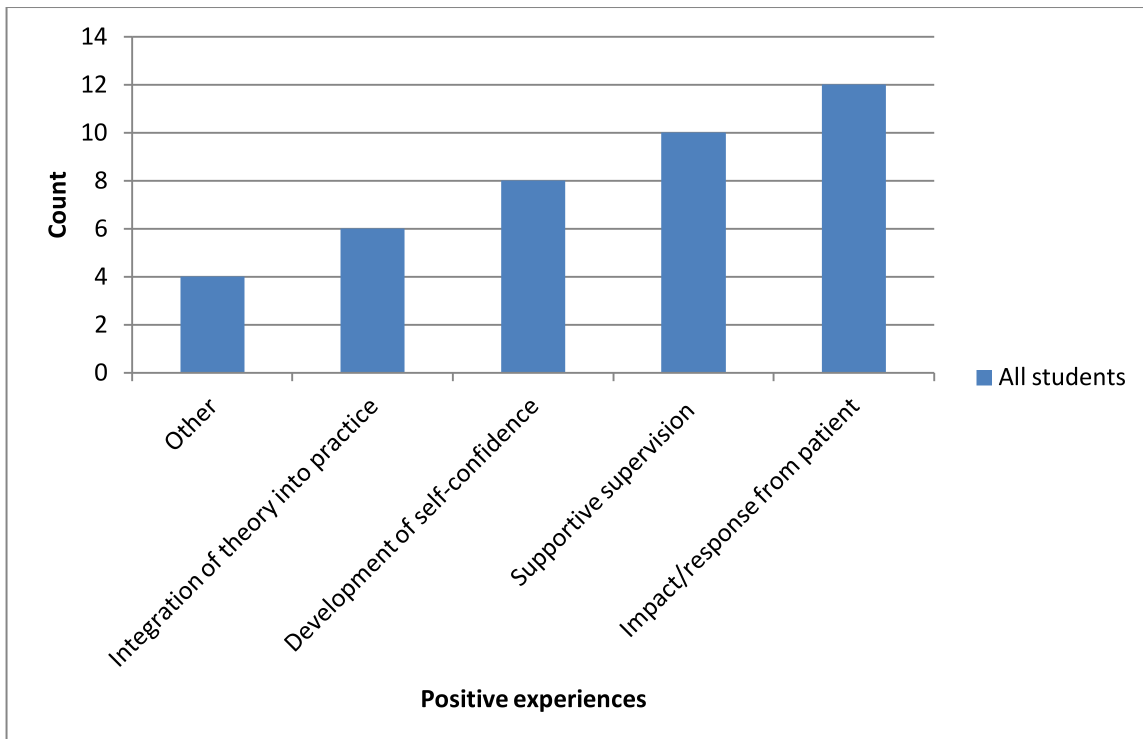

Figure 3: Breakdown of positive experiences in undergraduate training

All these external measures of success and recognition are perhaps an early indicator of the group's inability to self-reflect and to recognise both their strengths and weaknesses. Recognising weakness is as an important part of professional development as understanding strengths. But the students appeared unable to view negative feedback and poor performance as positive opportunities for growth.

This is highlighted in the ratings of their negative experiences, which revolved strongly around feedback and assessment outcomes. However, they also reflected on the need for role modelling to be provided. Being placed in clinical settings with no clinicians to provide supervision appears to impact negatively on their overall experiences of clinical practice (Figure 4, below).

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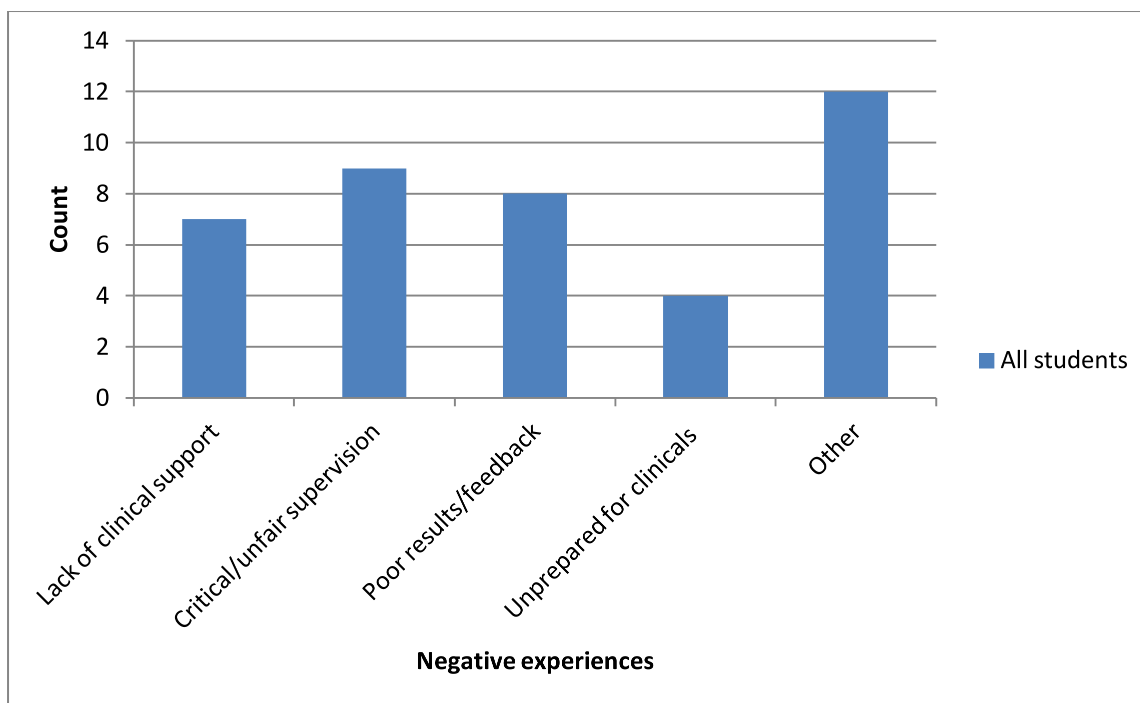

Figure 4: Breakdown of negative experiences in undergraduate training

4.2 FOCUS GROUP and INTERVIEW RESULTS

Using the questionnaire as a frame of reference, the focus group looked to uncover a richer understanding of the student's ideas around professional identity development and how they were starting to position themselves in preparation for independent practice. Already from the questionnaire responses, there was a sense that the value being attributed to the taught components of the course such as skills, was higher than the notions of reflection, self-evaluation and perhaps the nuances that go with communication across different levels. Whilst the students were able to identify role models within their contexts it was not yet clear what they felt they were role modelling and learning from these individuals.

A thematic breakdown of the focus group transcription allowed for the emergence of five main themes (Chapter 3: Section 3.3.2: Table 3). What I had expected were clear notions around their role as emerging physiotherapists within a South African context and a deep understanding of all the abilities they were being taught to use going forward in their careers. As with the questionnaire, this preconception proved somewhat naive.

These themes were carried over as far as possible into the analysis of the three interviews. To align the findings the following links were made and themes decided on (Chapter 3: Section 3.3.3: Table 4).

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4.2.1. A traditional medical model of professional role

As a starting point to the focus group the participants were asked to define themselves as physiotherapists. In answering this, the group drew on a very narrow frame of reference referring repeatedly to '*we restore as near as normal function' (FG: Line 19), 'involved in rehabilitation' (FG: Line 14)* and even '*we heal whatever was wrong' (FG: Line 41)*. The terminology mirrors the Physiotherapy Division's own definition of a physiotherapist (Chapter 1) and operates in a paradigm created by clear links to the basic sciences, the manual techniques component of the curriculum and the positioning of physiotherapy within the Health Sciences Faculty alongside the training of medical students.

Even when the group facilitator probed into whether this is what they had expected coming in as first year students, the group alluded to a broader scope of practice within the degree, but then redefined this simply into the specifics around different technical specialities. So it is '*not only just sports based...it's neurology and cardiorespiratory' (FG: Line 72).*

Perhaps what sums up this view best is a female student's view; *'physio outside is very sporty but in actual fact it's a very medical degree' (FG: line 56).*

4.2.2. Developing professional notions

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At the other end of the spectrum, what the research questions around professional identity intended to uncover were the moments when students could see beyond the technical, positivist framework and engage with / confront the qualities that would in fact define them as physiotherapists. At some point, I believed the research would show that they were not defined merely by their skills and technical proficiency, but rather by how they integrated and communicated their skills and knowledge in the practice context. Surprisingly, the moments of connection to these ideas within the focus group were fleeting and seemed to emanate from only one or two female students.

It is useful to set the student's views up against the definitions of professional identity provided by the interview participants. Immediately the parameters they use to establish this definition show a level of engagement very different to that of the students. The academic perspective creates a notion of identity that develops from a place of self-acceptance and acceptance of others in order to develop the physiotherapy profession further.

The academic staff member speaks of *'my professional identity would first of all relate to my own personal identity first. You know, of accepting who I am, knowing… being comfortable*

with who I am and taking that into my profession' (*INT 1: Lines 19-21*). Going further he adds '*if I accept my identity who I am, my values, my background –everything. I believe I can take that into my profession. I believe that would really enrich whatever I do as a physiotherapist'* (*INT1: Lines 22-25).* He continues *'So, by the time that I'm now moving into my professional space, I believe I should take along the honesty, the virtues or the honesty... Ja, that's related to truthfulness. Respect for people and it starts with the respect I have for myself' (INT 1: Lines 40-43).*

At no point in his conversation does he reference physiotherapy against the technical aspects of the profession.

Aligning itself to this are the clinical educator's ideas on professional identity. She starts by defining this as '*how you portray yourself to your clients as well as to the other professionals you're dealing with as well as to your patients' (INT 3: Lines 6-8).*

Within her frame of reference is a clear distinction between the professional self and the person, alluding to how these dealings are always *'done on a professional level and it doesn't get personal' (INT 3: Line 17).* As with the academic she draws on the notion that respect is crucial for all professional relationships, respect for fellow therapists, other health professionals, patients and students.

Initially, the clinician's view of identity in some respect appears to tie in with the student's parameters. She considers a checklist of desirable characteristics necessary for effective practice. This links her identity to her confidence, assertiveness and friendliness. However, later as the interview unfolds, the more intangible notions of self-evaluation and a thirst for knowledge and self-improvement integrate into her definition.

The ideas of the students within this broad theme of 'Developing Professional Notions' (Chapter 3: Section 3.3.2: Table 3) speak to their individual levels of professional development. At one level, there is a point of identification with the behaviours of others, both clinicians and clinical educators, who operate within the profession and who the participants see as displaying behaviours relevant for their own development.

'They're a role model for you because of the way they are with patients and the way they're treating you. But then there's the ones that you can also learn from by saying that you really don't want to be like that and the way they're interacting with patients and then also the way they interact with you' (*FG: Lines 181-186*).

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Further references to communication become important, alluding again to the tone and manner of interaction from clinicians. The focus group participants give reference to what they consider as suitable areas for discussion between staff and clients, or staff and students. For example:

'I also really don't like it when clinicians speak about their... the things going on about the patient in front of the patient, especially if it's not good things. Uhm, and I also don't like getting criticism in front of patients' (FG: Lines 412-414).

Within these references some important notions around professional behaviour / professionalism emerge. Students start to unpack the idea of communication beyond the point of mere instruction, giving emphasis to how things are said, the context in which they are said and the audience listening. This also hints at a better understanding of the boundaries of the professional role they, as students, are starting to play. A student comments: *'Communication as a skill is the ability to bring across your message in a verbal and non-verbal way and pick up on what those around you are communicating to you verbally and non-verbally... as they do not always coincide. The use of communication includes patients, their families, colleagues, supervisors and lecturers'* (*FQ*).

Communication features as well throughout the interview analysis. The clinician draws on student's ability for successful communication as a measure of their developing professional role. She looks for 'at *least decent communication skills, you know, that's not gonna offend somebody and that's going to try and put the other person at ease, you know – to gather information – that type of scenario. Uhm, and somebody that's going to be able to engage in...cos that's what we do all day with colleagues, with students, with other clinicians, with other people of different health... You know, have respect for not only your own profession but other professions as well cos you're gonna need them along the way, you know*' (*INT 2: Lines 386-393).*

This comment places the clinician strongly in line with the notions of both the academic and the educator when they defined their own identities earlier on. Communication is not just about what you convey, it is about how you convey those ideas and the engagement a person generates from the recipients in the conversation. This comes through in the statement: '*The fantastic-ness is when they go out of their way to actually speak to the patient, you know? They need to do something, as they're doing it, they're conversing with the person... patient'* (*INT 2: Lines 481-483*).

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There is an important issue raised by the clinical educator regarding communication and relationships that develop between client and therapist. It highlights the need for the idea of a boundary to be maintained between them. She points out '*I think physios have it slightly harder because we are a lot more hands-on with patients and you get a whole lot closer both physically and emotionally because I think you spend more time with them. So, oftenpatients will tell you things that they might not verbalise to another professional who doesn't spend as long with them. But also because physically we're so up close that you do need to be sensitive to how the other person is reacting, and reacting towards you' (INT 3: Lines 61-68).*

The physical closeness of the physiotherapist / client interaction does require a level of maturity from students. It is something that can easily be misinterpreted by the client and can perhaps lead to the types of inappropriate comments referenced already by the students (Section 4.2.4). It also impacts on the effectiveness of their treatment. '*So, they battle with drawing that boundary between uhm, personally being attracted to the child or being professionally responsible for getting the treatment done' (INT 3: Lines 83-85).*

At a second level of engagement around professional development the students look to comment on one of the most recognised areas of professional development, that of reflective practices. They position themselves quite strongly in this regard, with interesting differences. There is a theme of reflection being an unnecessary emotional unloading exercise, counteracted by it being seen as a useful technical clinical reasoning tool. '*That is a technical, again... a technical skill that is not about feelings. It's about the actual thought process of physio that's going on' (FG: Line 633).*

Again only a rare voice seems to emerge which values reflection on the emotional responses brought on in interactions with clients:

'if I hadn't gone and sat and talked to my clinician about how I felt about it and whatever - 'airy fairy feelings' - help me then treat the patient better and help me process physio technical stuff' (*FG: Lines 690-693).*

This seems to speak to a considerable lack of understanding of the different roles of reflection, especially as a critical driver of personal growth and change. Even the clinician in the interview uses self-reflection as a way to identify what she perceives as her negative characteristics. Where she acknowledges her impatience, she comments first '*I am impatient. It's a bad thing'* (*INT 2: Line 198*). But then, she must undergo a process of self-reflection, to acknowledge '*I do make an extra effort to try and be sympathetic because I'm*

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aware of it. It's not a blind uhm, impatience. It's something I am aware of, so I do tend to... like, I'll come back to you later on and say: "Look, I'm sorry about that but these were the circumstances." Or if possible, I'll try and explain before' (*INT 2: Lines 204-207*).

The students seem to want reflection without judgement. This links strongly to the dominant theme of 'Rules of Engagement' which emerged from the focus group and which will be discussed in Section 4.2.5.

Consolidating this idea that their professional identity as a physiotherapist may be very different to what their identity within another context might be, is a meaningful observation of one of the participants.

'*It's like you know, everyone's always pushing, pushing, pushing and to maybe take a step back and go, Okay, yes. Do your best for yourself and acknowledge that you have to have time management and a balanced lifestyle and it's not actually the be-all and end-all. It's not just your profession and you don't necessarily have to be defined by it. So make it part of who you are but make sure you have other aspects in your life as well.' (FG: Lines 525-531)*

This opinion stands out from the rest of the group and has particular reference to Lave and Wenger's model of identity formation. Situated learning presents a very particular and perhaps, far too narrow view of identity formation. Its basic premise is that identity is forged by the make-up of the community in which an individual engages and participates, as it is here that the individual makes sense of what they know. This seems to imply that we all exist within one framework and that we cannot occupy or have different roles within different communities simultaneously. What the student alludes to is that we all as individuals have different personas. So whilst within some contexts she operates as a physiotherapist, there are other times were these might not be the overriding values or behaviours she wishes to present. As a clinical educator I too position myself differently within the university framework as to what I would working as a clinician within a clinical context. There are common points of reference in my outlook but they present differently to different audiences.

Within this observation is a key critique of Lave and Wenger's model. Within the complex global environment, there has to be a way to transfer knowledge and skill from one community to another. Identity can therefore not be a static entity, but rather has to comprise of aspects that will be valued differently in different engagements.

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4.2.3. Positive role models and experiences

Within a situated learning framework, learning is understood to be the result of chosen socially mediated interactions. However, what is learnt is influenced by the others within the community, and how they engage with the newcomers to the environment. For any profession this socialisation process is important for the future standing of the profession. What newcomers learn will define the very make-up of the profession in the future.

With this in mind, the placement of students into specific clinical learning sites becomes a critical element of their professional development. From a curriculum perspective, the choice of site is usually based on whether it aligns itself to a specific theoretical element, and will be able to provide necessary opportunities for students to apply and integrate their technical skills into practice. For higher education institutions faced with the reality of a growing number of students, a pool of shrinking traditional training sites and large cost implications in getting students to and from placements, the prerequisite need of professional socialisation that of committed clinician support, has become a problematic area. The reality for physiotherapy training is that students, even in their third year are placed at sites with no clinician cover or at sites where the model of professional practice is not ideal.

From this background, the focus group's standpoint on both their positive and negative experiences warrants careful examination.

In positioning themselves around their positive experiences the emphasis on technical proficiency, feedback they get about this performance from their clinical educators and patient recovery, again stand out as measures of the groups' successful engagement within clinical blocks. Their positive associations are linked to phrases like:

'if you're good at it' (INT: Line 85), 'if you master it' (INT: Line 87) or 'When you're good, and your patient gets better you're doing your best... It works. When your patient comes back' (INT: Lines 483-492).

The student's attitudes to learning are still strongly guided by the way in which clinical teaching and feedback is structured by their clinical educators. Although this contact may only be once in a week they rely on this to strengthen their proficiency and application of technique. Again, as was evident in responses to the survey, their engagement with a specific clinical area relies on the feedback and outcomes.

Students comment:

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'tone is important; the way they communicate with you, so even if they say bad things, saying it in a constructive way.' (FG: Lines 192-193).

'And then there's others that are very helpful and uhm, make you feel like you're actually doing something good and you're actually helping your patient.'(FG: Lines 176-178).

'acknowledging what you have done right, given suggestions, giving self confidence' (FG: Line 194-197).

Even within this framework, the value given to technical proficiency remains a constant theme. So a good supervisor is also one who, over and above the feedback, can offer the students exposure to new skills;

'*it makes a difference when you've got a supervisor coming in who's so passionate about what they're doing and has gone and learn so much more and has all these different treatment techniques' (FG: Lines 463-466).*

At times, the student's discussions around the positive role models and contacts they have, started to reflect the nature of the physiotherapist they would like to become. There is evidence of a commitment to learning, a passion for their profession, an emotional connection to their patients and a willingness to be successful and acquire the status society affords to professionals. These are the individuals whom students describe as:

'They aren't complacent. They've... with the physio, they've gone on and they've carried on like searching for like more knowledge on this... Ja, a passion about it' (FG: Lines 456-459).

The purpose of linking students, as newcomers, with an experienced physiotherapist within a given community is tied intolegitimate peripheral participation. They need to be assisted to engage with the real work of the community. This gives their duties legitimate value. For clinicians the difficulty in this is embedded in their own sense of responsibility to their patients. There is a difficult balance that needs to be maintained between workload, effective care and student learning.

The clinician acknowledges this role. '*You need to be there enough to see that they're doing the right thing but then giving them the actual freedom and space to do it in' (INT 2: Lines 774-775).* However, the conflict this produces, especially with students who may be more hesitant to actively engage with learning or who lack confidence in their abilities to mange clients, is challenging. Ultimately she notes 'cos *ultimately, the patient is your primary*

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concern and the student is supposed to be assistance to that... Well, maybe they're not supposed to be assistance to that but they should be wanting the same thing' (INT 2: Lines 555-557).

The problem too for clinicians is the time they have available to facilitate learning and encourage true participation. Where students come in with a drive for learning and confidence in their own abilities, engagement is easy. However, too often with students it becomes *'so one thing that has been a problem in almost every block, is that students tend to take a backseat'* (*INT 2: Line77*). Then instead of slowly being able to withdraw support over a six-week period and allow students to develop their own skills and reasoning around patient management, clinicians and educators constantly have to be around. '*And with the more passive students or the more introverted students it becomes a bit more time consuming for us to have to try and, you know... Reel that information out of them. And that's sometimes difficult because just taking myself in context; I have between three and five ICU students to an eight-bedded ICU. So, it becomes a problem to try and keep track of everybody and what their needs are and to try and facilitate it' (INT 2: Lines 126-136).*

This is likely to impact on how clinicians are perceived as role models by the students. They start to be seen as just rushed or not allocating time to students. There needs to be an understanding of roles and co-participation within the community that will positively reinforce learning, as opposed to fuelling negative experiences.

Unfortunately too, what then happens, is that this lack of engagement is then converted into a negative report for marks at the end of the clinical rotation. This further fuels the relationship students have between performance and learning.

Clinical educators are too caught in this position of having to balance the needs of a diverse group of students on a block. As mentioned: *'I have to try and balance that and make sure that the stronger student who is being quite demanding, gets the time that they need but not at the detriment of the other person,'* (*INT 3: Lines 184-186).* This is challenging and it takes a skilled educator to facilitate. It also comes from recognition by the educator that it is often the learning process as opposed to the summative assessment outcome, which is a better measure of a student's overall development.

This is sensed in part by some students. In the focus group a student remarks; '*There's a difference between professional development and learning and skills' (FG: Line 317).* This is elaborated further with *'the skills is... the time is lacking. There's not enough time.…*

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Professional development, I'm sure, is something else' (FG: Lines 320-323). So there is a sense of there being more to the profession than the skills that are being cultivated within the assessment driven framework of clinical rotations, but maybe not yet a clear picture of entirely what that more should consist of.

4.2.4. Negative role models and experiences

In some respects, the negative experiences present a directly opposing view to the positive interactions clinical blocks. There is a discussion within the group of negative experiences related to supervision and assessment; and an engagement with the behaviours of particularly clinical staff which the participants see as inappropriate and reflecting negatively on the profession.

Again, the overall measure of enjoyment of a clinical area is whether they are able to master the technical aspect and problem solving required. This is framed by assessment outcomes;

'if you're bad at a certain aspect you obviously don't enjoy it' (FG: Line 88).

'There are some clinical supervisors who just put you down all the time and they just tell you all the negative things that you do' (FG: Lines 173-174).

'So, all it takes is that one bash and suddenly you're a bit like also resentful towards that person for making you feel confused and then you're not enjoying that block as much, which means you probably won't enjoy that part of physio as much, 'cos you'll carry it with you' (FG: Lines 225-229).

When considering the behaviours of both clinicians and clinical educators, a clearer picture emerges as to what the student participants would consider acceptable. Again here, the students show some engagement with the notion of which behaviours and values form part of acceptable professional norms, identifying what they consider as negative behaviours and the implications thereof. Clinicians are often seen to be rushed and irritated, both with students and patients. A student notes with regards to patient participation: *'And they won't give their best because they don't sense they're getting the best from you' (FG: Line 389).*

Communication channels are again highlighted with reference both to tone and content of communication (Section 4.2.2). There is reference to what student's take as inappropriate comments by clinicians, where clinicians become '*too familiar too quickly, especially opposite sexes*' (*FG: Line 390*), resulting in the observation of *'... I picked up that the patient*

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felt uncomfortable.' (*FG: Line 397*). There is a definite sense of growing definition of professional role and a boundary that should not be crossed when dealing with patients.

The issue is raised as to how students deal with these negative role models. Overall, because of their position in an assessment bound community, they do not feel empowered to engage with these incidents. Their limitation is driven by the fear that dissent or questioning will impact on their marks. From the student's perspective, none of the role players here, be it clinician or clinical educator would be able to disassociate their comments and not reflect it in their assessment outcomes.

The clinical educator realises this limitation and points to it when discussing poor clinician and student relationships. *'They are often too scared to do that cos they're afraid that it's gonna affect their mark at the end of the block. So, they don't want... they often don't want me to say anything to the clinician 'til the end of the block and the mark's been done. Uhm, which is often too late' (INT 3: Lines 114-118).*

No learning from either party is created out of areas of conflict. '*You can only do it through bad experiences that you then try and correct. But they're often too scared to go through that whole process cos it'll affect their mark. And then on the other hand then, you do have clinicians who also aren't mature enough to actually see that this is a process the student has to go through and not let it affect the mark, cos unfortunately it does in some cases' (INT 3: Lines 124-128).*

However, this clearly leads to ongoing miscommunication. For as the clinician points out with respect to engaging with students, '*But I do give allowances that I'm not always right and I don't have a problem with you challenging me or asking me things. And if you don't and you don't like the way I'm doing it, then unfortunately if you're not prepared to open your mouth, then you're going to be suffering with it for the next foreseeable time.'* (*INT 2: Lines 538-541*). This is easier said than done by students whose confidence in dealing with clinicians is often poorly developed. For every clinician who, like the one interviewed, may be willing to compromise with students, there are more who are likely to break them down and disregard their input. When students are met with comments like; '*well. I'm not paid at UCT, so I am not obligated to help you all the time'* (*FG: Line 433*), their confidence to engage with clinicians on another rotation is likely to be compromised.

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4.2.5 Rules of engagement

It is within this thematic breakdown that perhaps the most relevant information regarding the framework or community in which students are operating emerges. It questions the basic concept I had when setting up this research framework.

The research questions developed through an idea that within the Division of Physiotherapy we are initiating students, as novices, legitimately into a community of physiotherapy practice. However, what emerges is a picture of the university and higher education framework driving student practices and identity formation, in a way that does not necessarily reflect the broader frame of reference of the physiotherapy profession.

As students put it '*at the end of the day it's all about the marks' (FG: Line 439).*

From my own perspective, for '*professional socialisation'* to succeed it relies on a number of key components:

- Exposure to relevant clinical areas.
- Suitable role modelling from clinical staff willing to engage with students.
- An environment that promotes learning in student, novice and experienced members through communication and sharing of ideas.
- Adequate support from higher education institutions to both students and staff, so that there are common objectives and understandings of how student learning should be facilitated across the platform.

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Students engage quite readily around these issues and it is very apparent that these are the primary challenges they face within clinical learning contexts. There is an immediate area of discord between what is seen to be the objectives and understandings of clinicians, versus those of academics and clinical educators. Students seem to merge the role of academic and clinical educator together at times, positioning them both under the university banner.

What emerges is the following scenario: '*it's difficult because on a specific block you'll have a clinician and you'll have a supervisor and the expectations of the clinician and the supervisor aren't always the same. Uhm, its very rarely the same' (FG: Lines 270-272).* So for the student it becomes that *'you're constantly having to balance everything out and because we're not qualified yet, and we don't know everything, I think it's very difficult to keep jumping around between two different physios rather than just developing the one' (FG: Lines 279-282).* Students speak openly about the discordance of views they are confronted

by and the confusion that this brings. For the level they are at as undergraduates, they struggle to find a common ground between the different expectations and views. They straddle a position between the clinical reality and the expectations of higher education.

Interestingly, by placing clinical educators within an academically driven perspective, the students seem to undervalue the mentoring role the division perceives clinical educators to play. Part of the educators' role is to assist in professional development, and act as role models especially where there are no clinicians on site. They are the replacement for the clinician based reality and should reinforce this. However, at a student level, as the group pointed out, clinical educators are seen to be there to help them pass describing the expectation as *'Then your supervisor, depending on what they want because it's mostly also mark-based.' (FG: Lines 112-113)*

Perhaps the divisions' expectation of clinical educators to fill all these roles is unrealistic. Student success in higher education terms is still measured in assessment outcomes and student feedback. If as an educator your students pass you have fulfilled this mandate and as we have seen, you will get good student feedback. This is clearly highlighted in Le Maistre's (2006) article (Chapter 2: Section 2.4).

Looking again at the professional socialisation requirement of suitable role modelling, the reality depicted often falls short of the expectation. There seems to be two components to this: 1) where clinicians appear not to want to engage at all with students and learning (Section 4.2.4) and 2) where the reality of a pressurised, often understaffed clinical area, impacts on the clinicians' availability to assist learning and development. This is noted *'in a lot of places the clinicians are so overworked, they actually don't have the time to give you and it's unfair to kind of... to do that' (FG: Lines 306-307).*

This second point also highlights again the different community frameworks that are at work. Students note with clinicians '*you try to get as much done'* (FG: Line 275) while with supervisors '*you are trying to do as much as possible to get the best mark' (FG: Line 273).*

What seems to be a common thread for some of these areas of is that of time or lack of time. This applies to both clinician and supervisor interactions. As a female participant points out;*'I don't think there should be a bad relationship between a student and a supervisor. Why?'* (FG: Line 729). She is correct. If all the role players are committed to the same objectives and understand these, then the chances for miscommunication and misinterpretation of issues between them should be lessened. The reality is '*But I don't think that... I think we*

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have bad relationships with them because we don't have enough time to get to a point where I can be like, "This is my patient. This is what I'm thinking." There's... and it's pressure all the time! Let me suck up as much as possible, find out what this person wants and make sure I present this patient the way they want it. That's a lot of information and stuff that you got to get done in three or four hours 'cos that's what you've got with them' (FG: Lines 720-726).

What the students do not see, are the broader opportunities for learning that emerge from within a community of practice structure. They engage with the specific formalised interactions between educators and themselves or clinicians and themselves. What they do not make use of sufficiently are the informal opportunities that arise for learning to occur. The clinical educator highlight this as well '*learning comes all the time whether it's... whether you're actually reading a journal article or you're just listening to what other people have to say – that learning is there all the time and the students maybe don't realise the value of that. Just sitting... They often complain "Why must we sit in the staffroom? The staff just ignore us anyway." But if they just sat in the staffroom and just listened to what the conversation was, they will gain so much knowledge and insight into a lot of physio problems, physio issues... And they can actually contribute' (INT3: Lines 369-373).*

It is this engagement between newcomer on the periphery and the established professionals within the community that allows them to see the true nature of the community. However, it is this aspect they are most hesitant to explore. It is important to note as wel,l that sometimes students are not permitted to explore the nature of the professional community. If they question procedures students are told '*don't tell me because I am qualified. Look at you, you're not' (FG: Line 252).* Students reflect *'they already make that little ocean between you' (FG: Line 254)*. This too highlights the different communities in operation within the context of student learning. Importantly, it is also highlights something which Lave and Wenger do little to address within their learning framework, that of the inequalities and power relationships that exist within communities of practice.

It seems to take only the exceptional student who can move beyond the valuing only the power of assessment/assessor. Again the clinical educator, who too straddles the divide between clinical reality and higher education, points this out. '*I think maybe it's a level of maturity. The more mature the student is, the more they're able to see the worth of developing this identity – growing it, nurturing it and coming out at the end as a professional person whereas other students just aren't at that level maturity-wise and you know, they're still trying to grapple with the basics. They just don't see the bigger picture or the whole learning opportunity that's being provided at varsity' (INT 3: Lines 303-308).*

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So the rules under which the students operate do not always allow for the broader aspects of professional development to be nurtured. It looks to quick ways to get through as much concrete knowledge and skill to be implemented, practiced and assessed. This comes through strongly in the references made to reflection and reflective practices. Ultimately, reflective processes are seen as part of assessment requirements, not a tool for professional self-evaluation and critical engagement with the learning environment. By committing reflection to a list of weekly hand-ins for comment on by educators, students seemingly dismiss this aspect of growth. This is shown in their initial ratings in the questionnaire (Chapter 4: Section 4.1: Table 5). However, as the focus group develops, what becomes the fundamental problem is rather the observation of '*how can you mark a reflection' (FG: Line 553)*. Because of this, students find the university framework for reflection contrived and forced. They relate rather to reflection as it happens spontaneously with peers, at the end of a day or on discussion of issues with staff and supervisors. Even with respect to the focus group they note;

'But we've all come and reflected, mostly on everything about it and it's great. Everyone feels like they've let a bit of a load off; you've learnt more about whatever, but it's a more organic process than a scheduled time thing.'(FG: Lines 1006-1008).

However, this is reflection without judgement or a reflexive element, which if they do not develop further, will limit professional growth further.

The student's views are in contrast to the standing reflection is given by both higher education and the clinical world. The clinician's view on her own personality issueshas been voiced (Section 4.2.2) and she comes back to the idea of self-evaluation through reflection strongly with this statement '*also going to be practical knowledge and practical knowledge of yourself. I find that most of our most dangerous students are students that can't self-evaluate. You know, they don't know where they're at. They don't know their own strengths and weaknesses' (INT 2: Lines 253-255).*

Although taking a different perspective on the use of reflection, the academic staff member speaks about ethical practice as starting with the need to incorporate reflection. *'So, the opportunity to look beyond yourself, the ethics of handling yourself before you start thinking of ethics of handling another person, you must come to now address the ethics of patient's care, which is different from the way I would relate with someone else who is just a body, you know' (INT1: Lines 196-198).*

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But he does acknowledge that the barriers to reflection are that it is misunderstood by students, and that within the higher education courses *'students must be assisted to have this understanding' (INT1: Lines 265-266*). He also acknowledges the student's view that they '*are fed-up having to write everything down' (INT 1: Lines 280-281).*

4.3 DISCUSSION

On examination of the data, there are a number of interesting findings that emerged that appear to challenge Lave and Wenger's (1991) framework of situated learning. They also challenged my own ideas about the design of the situated learning curriculum of physiotherapy clinical training. .

4.3.1 Communities of Practice

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Central to Lave and Wenger's (1991) model of learning is the notion of communities of practice. As indicated by the literature, it is here that the real learning of how to become, in this case a physiotherapist, takes place. The idea is that a clinical placement mimics the dynamics of the real physiotherapy community and it is this physiotherapy community that students are been introduced to. Using Lave and Wenger's idea of legitimate peripheral participation they are becoming members of this community, familiar with its rules.

What is highlighted in the data is that the rules of the communities in which students are practising are not the rules of the physiotherapy community. Student boundaries are grounded instead in the expectations of higher education criteria and success is measurable by what is assessable. Technical proficiency is granted more value in summative assessment than tacit, generic outcomes. So, whilst the demands of the real world are recognised by more mature reflective students, balancing the two is challenging.

However, communities of practice cannot simply be considered to be that of higher education versus that of clinical domain. The clinical domain itself is made up of multiple communities. Each area or sub-speciality that a student rotates through in his or her training, represents a community in itself. While there are some similarities, there will also always be differences in the exact make up of that community, its hierarchy and its expectations. Lave and Wenger's (1991) model struggles to explain how movement from one community of practice to another can work (Figure 5).

Relationship of Communities of Practice

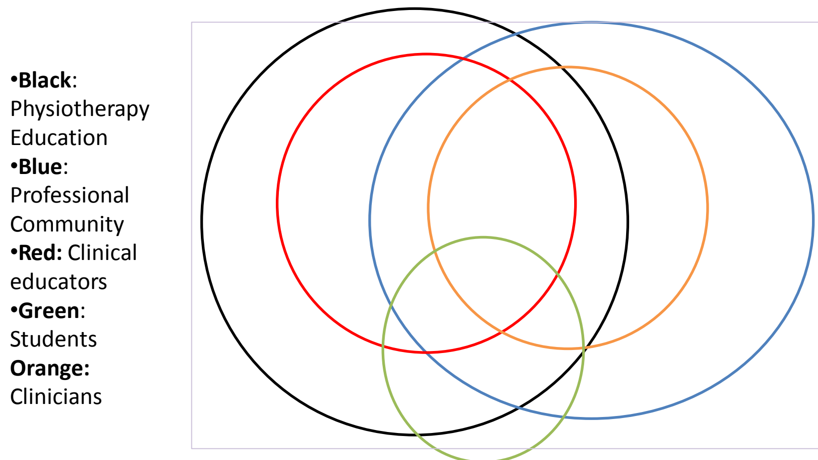

Figure 5: Relationships of Communities of Practice with respect to student and role player positioning

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It is here that the marriage of Lave and Wenger's (1991) work with Bourdieu's ideas of field, capital and habitus as developed by Hodkinson and Hodkinson (2004) add explanatory power (Chapter 2: Section 2.3). For students, each clinical site appears to work as a separate community of practice. Here, using the rules of the higher education framework as their point of reference, they work towards acquiring the specific set of skills they feel they need to pass that specific rotations examination. This is guided by the expectations of the clinicians and the clinical educator responsible for that specific site. When they leave this site after five or six weeks of practice, they move to a new area with often very different technical and knowledge expectations.

What students are often not able to do is integrate learnt behaviours and skills from one practice area to another. From the perspective of a clinical educator however, overall student growth and development is best seen in those individuals who can build on experiences from one clinical rotation to the next and from one clinical year to the next. So even though the profession specific skills maybe very different in each clinical area, they are able to integrate new ideas with older more established ones; build on confidence, communication and other behaviours they have acquired through the process of clinical training. This implies a more

fluid overlap between communities of practices, where students carry components that have value and give them a standing even as they move through different areas.

What students have learnt about becoming a physiotherapist is the capital they carry over from each practice field. Unlike the idea of a community of practice, the fields coexist and students and educators move between them, bringing different capital with them. It is their experiences in all of these fields that ultimately defines their identity. Although the fields are seemingly defined by higher education, what they have learnt here will allow them to proceed into the broader physiotherapy domain.

This notion confirms the clinical educators' position as broker of relevant knowledge. It is he or she who guides students through the different communities of learning they encounter within their student experiences. Ultimately, their role is to move students from peripheral participants to a point which, from a higher education perspective, implies some sense of centrality. This equates to the point at which higher education, and its values system considers them competent to graduate into the professional community.

In recognising this interface between communities it is possible to start defining the boundary point of the profession of physiotherapy and the higher education institutions responsible for training entrants to the profession. It is at the point at which higher education confirms some sense some centrality on its student participants, that students cross the boundary and move as newcomers into the professional community. Here having supposedly accumulated some grounding of knowledge and, in some instances, some indication of the knowing of physiotherapy they will begin a journey, which may take them to a point of full participation in thephysiotherapy community.

4.3.2 Power relations

It is important to remember that learning (as it is understood within the model of legitimate peripheral participation) within clinical placements is not a smooth process. There is a teaching curriculum imposed on what Lave and Wenger would see as the socially mediated natural learning curriculum. This formalised pedagogy alters the values of the community and there is a potential for a struggle for recognition between what the community of practice might perceive as important and what the assessment driven curriculum of the education body measures.

Within this context, the complexity of the position of the clinical educator is compounded. Besides acting as broker between the different clinical blocks through which students rotate,

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they also negotiate the boundary point between higher education as a community and the professional community of physiotherapy. Very often they are forced into negotiations over roles and expectations of students, clinicians and themselves at the points where the communities begin to engage with one another. The reality is that as soon as students are positioned within these professional communities, the dynamics are altered. Students become concerned over whose rules they are expected to operate under; the universities' or the clinicians. This is the tension and balancing act referred to by the students and mediated by clinical educators. Students are also too aware that their success in the higher education community, or ability to move more centrally within that community, is determined by their ability to pass their block and patient assessments. Assessment and therefore the assessor hold power. The difficulty here is twofold. Firstly, their educator or mentor must assess them, which impacts on the relationship between them. Secondly, clinicians, whose opinions may often be in conflict with that of the clinical educator, also provide input into end of block assessments and professional reports. This immediately places clinicians in a position of power over the students. As seen in the clinician's comments, weaker or more reserved students have less access to the learning clinicians can provide, and often fall aside for stronger students in a group. In this respect weaker students are marginalised in their engagements with the community. They cannot proceed as easily to greater levels of participation, and often perform less well in assessment processes.

At the points of boundary intersection, where conflicts arise between clinicians and students, the clinical educator is often willing to fulfil his or her mandate as broker and negotiate a position between the two parties. However, as noted (Chapter 4: Section 4.2.4), students are reluctant to question the position of either the clinical staff or in fact the educator, as a representative of the higher education community. It is seemingly safer to just comply with instructions as opposed to question and try to understand the processes involved. But, it is in fact the understanding of practices, that will ultimately assist them to a position of full participation within the physiotherapy community and to a point that will define an identity for them.

The disempowerment of students in this respect where they simply mimic behaviours and resort to a position of wanting to display their knowledge through the accumulation of prescribed skills and competencies, restricts their learning. True understanding of practices becomes unachievable at their point of development.

The notion that learning comes through engagement with the members of the community is one which students are not comfortable with. Whilst they want to take on board information

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from the teaching curriculum about techniques, treatment methods and pathologies, engaging with the underlying learning curriculum of the physiotherapy community remains negligible. As the clinical educator points out, they do not understand why sitting in with staff members in the staff room over tea and engaging with them may in fact further their development (Chapter 4: Section 4.2.5). Again, it is here where by even listening to the discussions of clinicians, they can start to gain a sense of the values and positioning of members of that professional community. The likelihood is that their reluctance to go there may be because of the position of power that the staffroom seems to point to. So whilst students may sit there, they are in all likelihood not engaged by clinicians in their discussions, which is likely to intensify their feelings of disempowerment. In fact, most student meeting places on clinical blocks are separate to that of staff, again reinforcing the positioning of students as only peripheral to the community.

4.3.3 Curriculum dilemmas

Importantly, what the discussion group and interviews highlight, is the composition of the curriculum of the clinical physiotherapy courses and whether their design meets the mandate of producing reflective, socially responsive physiotherapists who can proceed, and succeed, within the broader professional community on graduation.

The reality is that the expectations of clinical rotations are grounded in the exposure of students to specific, specialised areas chosen for the ability to allow students to implement specific skill sets and assessment procedures. By far the greatest component of assessment through these clinical rotations is the ability to perform these procedures in a safe and effective manner. Whilst context and the recognition of the individual patient and his/her needs is important and are often the distinguishing factor of an extremely successful student, for a student who is struggling, execution of techniques is often the basis of passing or failing.

Students themselves are acutely aware of this. So their own development through processes of reflection, questioning and gaining understanding is often dismissed as having little value. This is reinforced by the framework that positions reflective processes within the list of portfolio requirements needing to be handed in during a rotation. Reflections become assessable pieces of writing as opposed to internalised understandings of situations.

The question needs to be asked whether higher education can in fact match the needs of the diverse workplace faced by students on graduation?. There is perhaps an argument for the fact that professions are built on a foundation of scientific principles and solid skills and

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that without these, physiotherapy students will be very ill equipped to address the needs of their clients. It is easy to simply say the rest of the behaviours and attributes that the profession appears to suggest it needs like confidence, empathy, sense of self, will merely emerge through practice and maturity.

This argument negates the very need for contextually based learning. After all, skills can be measured in a clinical skills laboratory. The skills laboratory however, can never equate with contextually based, socially mediated learning which imparts to the students a sense of the complexity of the professional and increasingly multiprofessional healthcare reality.

The curriculum issue becomes about defining what type of learning and objectives need to be defined within clinical physiotherapy courses. Whilst skill is an aspect of this, assessment methods need to consider the other forms of knowing and understanding that potentially can be given value in block outcomes. This is challenging as these components are so tacit that attempts to define them into specific criteria for assessment processes is problematic. Clinical educators are aware of this, but it is recreating this understanding in students that is difficult. The current curriculum design and processes serve to reinforce the findings that the point of centrality of students within the higher education community is only equitable to a newcomer position within the physiotherapy community.

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5. Conclusions

The main motivation for the development of this research project was an awareness that some graduating student physiotherapists appear to display a greater sense than others, of the qualities that make them recognisable in the eyes of the profession into which they are entering.. What was lacking was the understanding as to why this was happening when they were all, supposedly, exposed to the same curriculum and training opportunities.

My own development of an identity as a clinical educator within the Physiotherapy Division has been through a process of experiences, roles and positioning sometimes as clinician, sometimes a lecturer or a clinical educator within different communities of practice. I believe that these encounters have brought me to a point of self-awareness and reflexivity which helps define my current identity. I acknowledge that this is a process which has evolved over time, and which must therefore question the assumption of whether we as educators can expect, within a four-year course, to be developing an individual who will have a clear idea of what being a physiotherapist entails.

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For the purpose of this research, I needed to draw on conceptual frameworks that provided a guide for the social nature of learning that students are exposed to as part of clinical training. This is teaching which moves out of the boundaries of a classroom and into a contextually based, real environment where students, as social beings, are able to engage with clients, clinicians and other healthcare professionals in the performance of physiotherapy related skills and duties.

What I was hoping to understand was the process of development of professional identity within physiotherapy students. The questions I was asking were; what defined the identity of a physiotherapist for students, how they incorporated these attributes and who was in fact responsible for the facilitation of these?.

The use of Lave and Wenger's theory of situated learning and its place in identity formation seemed a helpful place to start understanding the students' position. Lave and Wenger are referenced extensively within physiotherapy and allied health professional bodies' literature, especially when it comes to explaining the process of professional socialisation. The idea of legitimate peripheral participation appears to help understand the 'learning to become a physiotherapist' that is part of the rationale behind clinical practice rotations. It is embedded

in the belief that by placing students within a specific community of physiotherapists and asking them to perform legitimate tasks under guidance within that community, they learn what it is like to be a physiotherapist. An additional implication of the idea of legitimate peripheral participation is the assumption that we all exist within isolated community frameworks and that our identity is created by our understanding of the practices of that specific community. The consideration of the impact of being positioned within multiple communities simultaneously is not explored within the Lave and Wenger model. This implies that the higher education institution that trains physiotherapists and the physiotherapy profession must be one and the same, as the ultimate goal of each is the development of a physiotherapist and the ongoing development of the profession. What the research suggests, however, is that they are different communities of practice, although mediated by individuals from both contexts.

In addition, my belief was that final year students would have a clear sense of the broader aspects of professional development that the institution believes are adequately taught within their training. I expected that they should recognise how the use of reflective processes would assist in strengthening both their technical clinical proficiency, as well as their self-awareness. Clinical expertise and expert decision making is developed through reflection on actions and on the results of interventions. It is also the way of recognising one's strengths and weakness, and a drive for lifelong learning. Without reflection and reflexivity professional growth is impossible.

Through the observation of qualified physiotherapists in practice and through engagement with both clinical educators and academic staff, I was confident that the notion of situated learning was providing students with an adequate platform to learn what would be considered acceptable actions and attitudes for a physiotherapist. They should somehow therefore, by the end of their training, know how to communicate, think and act in a way that would be acceptable to the professional community. However, I needed to explain why some students had a stronger notion of what being a physiotherapist entailed on graduation than others.

As the research progressed, further examination of the literature revealed some key limitations, as well as different interpretations of Lave and Wenger's model. These seemed to better explain both the structure of the clinical programme as well as the nature of the learning that occurred on site.

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The first assumption about the very nature of the community of practice that students were operating within, was called into question by the focus group analysis. It became clear that the rules under which the students were operating were not, in fact, the same of those of the professional community in which clinical training occurs. So immediately the idea of the existence of two communities, higher education and the profession, emerge. Students easily defined the differences in expectations and practices of the two communities. They constantly juggle the challenge of trying to match the expectations of both. What they remain acutely aware of is that they are participants in the higher education community and that as such, their success or failure will be measured by their assessment marks. Whilst they recognise broader aspects of the profession they are reluctant to engage more deeply with this because they do not see these intangibles as being recognised within the assessment processes they go through. Higher education and the profession are not one and the same, so the identity created by participation in each of those communities cannot be the same.

The idea of the existence of two communities should be extended to consider the existence of multiple community frameworks. Each clinical block that a student spends time on, represented a community on its own (Section 4.3.1 Figure 5). This too negates the idea that a person's position within one community defines their identity. Students move from one block to another and therefore must be able to transfer knowledge from one community to another. Their successful transition through these multiple communities brings them to a point of centrality within the make-up of the higher education community. Lave and Wenger cannot explain this transference of knowledge and behaviours, it draws rather from the ideas of Bourdieu on field, capital and habitus.

What comes through from a student's perspective is that within the multiple communities that make up their higher education world, capital or standing is measured in technical proficiency. If they possess skills and tangible knowledge of disease processes and dysfunctions they will pass. This will allow them to graduate. Their identity at this point is largely defined by this competence of skill.

What the higher education community needs to accept is that this is the point they are probably taking most graduates to. So when exiting with a degree in physiotherapy students are although finally, with reference to the idea of legitimate participation, at a central point within the higher education community framework, still positioned very much on the border or periphery of the community of physiotherapy.

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Having seen this it seems to present a rather negative view of the nature of physiotherapy training and the success of the socialisation processes. However, within this sample group, a minority voice did suggest that there are some graduates who do understand that more than their technical proficiency will measure their professional success. This is recognised in comments of both students and interviewed participants. There are moments were students do “get it”. Where the way they communicate and engage with others or in the way they think and approach reflective tasks suggests a greater understanding of all the learning opportunities engagement in practice does present. They are not afraid to discuss aspects of their learning with educators and clinicians. So, rather than being disempowered by their position as students, they look to empower themselves for their own growth. But this is a difficult position. If they challenge clinicians too much it is often misunderstood and they are seen to be ‘difficult students’. This then impacts negatively on block reports repositioning them back into the framework of where assessment holds power over success. Similarly, by sitting back and not engaging with members of the profession, they are also often penalised in assessment processes.

Again, the students’ continual juggle to maintain their position between those who hold power in each of the communities in which they are positioned, limits opportunities for real learning and understanding. Access is not equal to all and learning is compromised. This is compounded by the fact that those who are positioned as mentors, that is the clinical educator and the clinician, are also ultimately the assessors of students.

5.1 The way forward

From this analysis a picture emerges of students operating within an assessment driven community of practice, and graduating as technically competent individuals but with no true understanding of the nature of the physiotherapy profession. This does not mean that the Physiotherapy Division does not recognise the need to produce socially aware, reflective physiotherapists capable of taking up a position within the South African and the global healthcare environment.

Where the process perhaps falls short is in the alignment of the higher education assessment tools and processes with outcomes which, as closely as possible, will match the needs of the real physiotherapy workplace. There needs to be a way for the Physiotherapy Division to move closer to the knowing that the physiotherapy profession recognises in its successful clinicians. For this to occur, the weighting of technical skill versus that of aspects of communication, self-evaluation, empathy and initiative amongst others, needs to be

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debated and perhaps repositioned within the clinical assessment structure. The formalised judgement of reflection and the way reflective processes are taught to students right from a first-year level must be revisited. Students need to be encouraged to reflect in a non-threatening, uncontrived manner that promotes both learning and reflexivity.

The problem of time and access to clinicians and educators hampers true participation for students. The Physiotherapy Division as with most other university divisions is limited by budget constraints when it comes to the clinical teaching of students. This does impact on the ability of clinical educators to create meaningful mentor relationships with students. Clinicians are often more readily available to students on a daily basis than their specific clinical educator. By engaging more frequently with clinicians at clinical sites, clinical educators, as representatives of the division, could help ensure that there is a shared understanding of the learning objectives for students. There needs to be a common point reached between what the clinicians, as representatives of the profession, and the clinical educators, as representative of the higher education framework, are working towards. This would decrease the confusion of expectations that students experience and perhaps reduce the tension created by mediating the boundary point of the two communities. By lessening the constant juggling of students of these two positions, there is a potential for a point of greater understanding to be reached by the student.

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Ultimately then, Lave and Wenger do provide some basis for understanding the learning through participation which occurs during undergraduate physiotherapy clinical training. However, it is learning within multiple communities as opposed to on single isolated community of practice. Furthermore, the higher education community of practice that students' leave as graduates, is not representative of the community of practice they enter into as physiotherapists. At this point their identities are still largely embedded in a paradigm of technical proficiency and measurably knowledge created by the assessment methods of the university. They will start their professional careers very much on the periphery of the physiotherapy community, where, without developing an element of reflexivity, they will struggle to become central participants.

5.2 Opportunities for further research

This research raises some interesting points about professional development in a specific cohort of physiotherapy students. Considering the idea that development implies a process of change within an individual, the potential exists to develop a more longitudinal study amongst physiotherapy students. The potential changes in thought processes, attitudes and

behaviours that students undergo as they move through the degree from their first to fourth year could be explored in more depth. Drawing from this research, the potential for a transition in understanding of their role as they move from the pre-clinical first two years of the course, to their engagement with the physiotherapy community as part of their clinical practice, and what mediates this understanding, might yield some interesting results.

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7. APPENDICES

APPENDIX 1: QUESTIONNAIRE

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APPENDIX 2: INFORMED CONSENT AND INFORMATION FOR PARTCIPANTS

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APPENDIX 3: FOCUS GROUP FOLLOW- UP QUESTIONS

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APPENDIX 4: INTERVIEW QUESTIONS

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APPENDIX 5: ETHICS APPROVAL DOCUMENTS

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Questionnaire

PLEASE COMPLETE THE ENTIRE QUESTIONNAIRE

AGE --

GENDER--

HOME TOWN AND PROVINCE ---

1. How many years have you spent as part of the physiotherapy undergraduate programme?

____

____

2. Prior to entering physiotherapy, did you spend time studying towards any other qualification?

____

3. If you have answered yes to the above, please indicate which qualification this was, for how many years and whether you graduated from this programme----------------------------------
----

____

____

4. From the table below, indicate which factors would have influenced your decision to study physiotherapy initially. Please rate the relevant factors on a scale of **1 to 10**, with 1 BEING **MOST** important influence and 10 being the **LEAST** influential.

FACTOR	**RANKING**
School	
Parents	
Peers	
Your own or others experience of physiotherapy	
Could not get into university course of choice	
View of Physiotherapy as seen in media/ television	
Wanted to help people	
Wanted to work with a sports team	
Earning potential	
Interested in wellness	
Interested in fitness	
Not really sure	
Other factors	

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If you indicated OTHER FACTORS in the list below, please elaborate on what these factors were.--

5.Prior to entering UCT had you ever come into contact with or seen a physiotherapist working with clients? If yes please indicate with a cross **all** the relevant settings from the list below.

SETTING	MARK if relevant
State hospital	
Community Health care centre	
Private practice	
School	
other	

- If you marked the block OTHER , PLEASE indicate in which setting or context this was.-- -

6. If you answered yes to any options in question 5, please indicate your role in the above interaction

- Patient
- Family member to someone being treated
- As part of work shadow
- Other (please describe)____

7. Please describe the key things you remember about this / these encounters with the physiotherapist.--- -

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8. How would you define a physiotherapist to someone who had no knowledge of the profession?

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9. The following values are described in some of the literature as being the cornerstone of competent clinical practice.

Reflective Practices **An ability to search for and use evidence in practice**

Technical Skill **Communication Skills**

In the table below, **rate** in order of importance with 1 being the **most** important and 4 being the **least** important which of these components will be important for your future practice as a professional?

Reflective practices	
An ability to search for and use evidence in practice	
Technical skill	
Communication skills	

10. Of the many people you have come into direct contact with through your training can you rank in order of importance, who has been the biggest positive reinforcement of your decision to become a physiotherapist.

Rank your options from 1 to 5 with 1 being **most** influential and 5 being the **least** influential.

CONTACT PERSON	RANKING
A Physiotherapy academic staff member/ lecturer	
A physiotherapy clinical educator	
A physiotherapy clinician you have encountered during clinical practise	
Another health professional	
A tutor	
A peer from within your year of study	
A peer from another physiotherapy year	
A patient	
A Physiotherapist out of the UCT Context	

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11. Considering your entire undergraduate training- what do you feel has been the most **positive** experience or influence in preparing you for your future career? Please provide a brief description of why this experience was a positive one.

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12. Considering your entire undergraduate training what do you feel has been the most **negative** experience of influence in preparing you for your undergraduate career? Please provide a brief description of why this experience was a negative one.

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School of Health and Rehabilitation Sciences

Faculty of Health Sciences

Divisions of Communications Sciences and Disorders, Nursing and Midwifery, Occupational Therapy, Physiotherapy

F45 Old Main Building, Groote Schuur Hospital,

Information for interview participants

Introduction and Title

This study entitled The **Search for Professional Identity; a personal journey for physiotherapy students** is being conducted by Heather Talberg as part of the requirements towards a Masters in Education. The study will form the dissertation component of the Masters Programme offered by the School of Education, Centre for Higher Education Development at the University Of Cape Town.

The chief investigator in this programme is Mrs Heather Talberg a clinical educator for the Division of Physiotherapy, Department of Health and Rehabilitation Sciences at University of Cape Town

This study has received ethical approval from both the School of Education as well as the Faculty of Health Sciences Human Research Ethics Committee

University of Cape Town

Purpose

The main aim of the study is to try and identify the situations and individuals which assist in the developing a sense of professional identity within undergraduate physiotherapy students. It also looks to define what is encompassed within the framework of identity and what defines a competent graduate.

What the researcher hopes to discover is whether the current physiotherapy training programme provides an adequate platform for students to learn what is needed for competent professional practice and what they see as identifying them as a physiotherapist on graduation.

Participants

You are being asked to participate in the final stage of the study. This participation involves an individual interview to be organised by the interviewer at your convenience. You have been selected as being one of the 3 key groups of individuals who interact with and teach, both formally and informally physiotherapy undergraduate students. The individual interview participants include a member of academic staff, a clinician and a clinical educator as they are seen to provide the key areas of teaching within the physiotherapy programme and act as potential role models to students

Description of Research

The research is a qualitative study which will draw on data from a number of sources. In the first part of the study a questionnaire will be administered to the entire 4th year class. Students will then be asked to volunteer for a small focus group discussions to gain a deeper sense of understanding of their understandings on identity. The interview component forms the Third part of the study. The interviews will be designed to elicit an understanding of your notion of the make up of professional identity and to gain a clearer sense of how you see your role in fostering this identity within students.

Risks and Benefits

There is no physical, psychological or social risk attached to participation in the focus group; nor will you receive any direct benefit through involvement in the process

No payment will be offered for participation in this study

Participation

Participation in the study remains voluntary and you have the right to withdraw from the process at any stage. No explanation needs to be provided and there are penalties for withdrawing

Confidentiality and anonymity

Whilst you have been selected by the researcher to participate in this study because of the role you play in student training, your identity will remain anonymous in the write up of the dissertation and in any publication that may result from the work.

The interview will be audiotaped and then transcribed to assist in the data analysis process.

The transcriptions of the data will remain in the possession of the researcher and her supervisor and will not be made available to outside parties without permission of the study participants. Any electronic copies will be stored with access only via a password.

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Further information

Should you require any further information about this study please feel free to contact one of the following individuals.

Researcher

Heather Talberg

F45 OLD main Building
Groote Schuur hospital
Anzio Road
Observatory
Email: heather.talberg@uct.ac.za
021 4066171 or 0834628187

Supervisor

Kevin Williams, PhD
Third Term Coordinator
Centre for Higher Education Development
Room 3.018 ; Leslie Social Sciences Building
University of cape Town
Rondebosch
Email: kevin.williams@uct.ac.za
021-6502887

Head of Ethics Committee: School of Education

Associate Professor M.H Prinsloo
School of Education
Humanities Graduate School Building
University Avenue South
University of Cape Town
021-6502769

In addition for health science review information

Head: Faculty of Health Sciences Human Research Ethics Committee

Professor Marc Blockman
Chairperson
Faculty of Health Sciences Human Research Ethics Committee
021 406 6492
E-mail: marc.blockman@uct.ac.za

University of Cape Town

School of Health and Rehabilitation Sciences

Faculty of Health Sciences

Divisions of Communications Sciences and Disorders,
Nursing and Midwifery, Occupational Therapy, Physiotherapy

F45 Old Main Building, Groote Schuur Hospital,

Information for questionnaire participants

Introduction and Title

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The chief investigator in this programme is Mrs Heather Talberg a clinical educator for the Division of Physiotherapy, Department of Health and Rehabilitation Sciences at University of Cape Town

This study has received Ethical approval from both the School of Education as well as the Faculty of Health Sciences Human Research Ethics Committee

Purpose

The main aim of the study is to try and identify the situations and individuals which assist in the developing a sense of professional identity within undergraduate physiotherapy students. It also looks to define what is encompassed within the framework of identity and what defines a competent graduate.

What the researcher hopes to discover is whether the current physiotherapy training programme provides an adequate platform for students to learn what is needed for competent professional practice and what they see as identifying them as a physiotherapist on graduation.

Participants

As a final year physiotherapy students you are being requested to take part in the questionnaire component of the study. Individuals from this group have been identified because having nearly finished their training and about to graduate you should have a clear idea on what being a physiotherapist entails and will hopefully have some insight as to what events and interactions have shaped this knowing.

Description of Research

The research is a qualitative study which will draw on data from a number of sources. In the first part of the study an anonymous questionnaire will be administered to the entire 4th year class. The

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questionnaire will be delivered on the first Wednesday of the 3rd term after clinical duties between 1.30 and 2.30pm.. The information obtained from the questionnaire will be used to guide the follow up focus group discussions. This information will only be used by the researcher for the Masters Dissertation

Risks and Benefits

There is no physical, psychological or social risk attached to participation in the questionnaire; nor will you receive any direct benefit through involvement in the process

No payment will be offered for participation in this study

Participation

Participation in the study remains voluntary and you have the right to withdraw from the process at any stage. No explanation needs to be provided and there are penalties for withdrawing

Confidentiality and anonymity

As a participant you will be offered anonymity throughout the questionnaire process. No record of who participated in this section will be kept and questionnaires will be anonymously completed.

Whilst the questionnaire data will form a guide for the other components of the study that follow, comments will not be able to be attributed to a specific student/ students.

All information obtained from the questionnaire will be kept in a secure venue by the researcher for the duration of the study and only used for the dissertation purposes and possible follow up journal publication. Should anything be stored in electronic format, it will only be accessible via a secure password.

Further information

Should you require any further information about this study please feel free to contact the following individuals. Any questions or concerns will be dealt with in utmost confidence.

Researcher

Heather Talberg
Clinical educator
Department of Health and Rehabilitation Sciences
F45 Old main Building
Groote Schuur Hospital
Observatory
Email: heather.talberg@uct.ac.za
021 4066171 or 0834628187

University of Cape Town

Supervisor

Kevin Williams, PhD
Third Term Coordinator
Centre for Higher Education Development
Room 3.018 ; Leslie Social Sciences Building
University of cape Town
Rondebosch
Email: kevin.williams@uct.ac.za
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University of Cape Town

School of Health and Rehabilitation Sciences

Faculty of Health Sciences

Divisions of Communications Sciences and Disorders, Nursing and Midwifery, Occupational Therapy, Physiotherapy

F45 Old Main Building, Groote Schuur Hospital,

Information for focus group participants

University of Cape Town

Introduction and Title

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The chief investigator in this programme is Mrs Heather Talberg a clinical educator for the Division of Physiotherapy, Department of Health and Rehabilitation Sciences at University of Cape Town

This study has received ethical approval from the School of Education as well as the Faculty of Health Sciences Human Research Ethics Committee

Purpose

The main aim of the study is to try and identify the situations and individuals which assist in the developing a sense of professional identity within undergraduate physiotherapy students. It also looks to define what is encompassed within the framework of identity and what defines a competent graduate.

What the researcher hopes to discover is whether the current physiotherapy training programme provides an adequate platform for students to learn what is needed for competent professional practice and what they see as identifying them as a physiotherapist on graduation.

Participants

As a final year physiotherapy students who completed the earlier questionnaire component of the study you are being requested to volunteer for the focus group component of the study. Volunteers will then be randomly assigned to small groups for in depth discussion around the research questions Its believed that because you having nearly finished your training and about to graduate

you should have a clear idea on what being a physiotherapist entails and will hopefully have some insight as to what events and interactions have shaped this knowing.

Description of Research

The research is a qualitative study which will draw on data from a number of sources. The focus groups make up the second part of the research design, and will follow on closely from the questionnaire. The focus groups are targeted and gaining more insight into students' experiences within their physiotherapy training, what they see as being fundamental to competent practices and what they see as having shaped their own sense of identity as physiotherapists. These will all take place over four Friday afternoons within the 3rd term and will be conducted by an independent individual. The focus group discussions will start at 1.30pm and will last between an hour to an hour and a half.

Risks and Benefits

There is no physical, psychological or social risk attached to participation in the focus groups; nor will you receive any direct benefit through involvement in the process

No payment will be offered for participation in this study

Participation

Participation in the study remains voluntary and you have the right to withdraw from the process at any stage. No explanation needs to be provided and there are penalties for withdrawing

Confidentiality and anonymity

Whilst you will be asked to volunteer for the focus groups the interviews will be conducted by an outside group leader. As a participant you will be asked to respect the confidentiality of the others in the group and not discuss the contents of the group outside of the session. This however can not be guaranteed by the researcher. The interview information will be transcribed and students will not be identified by name in the transcription. This will ensure that what is reported will remain confidential and that the researcher will not at any stage be able to attribute specific comments to a given student. This will hopefully alleviate any ethical problems that may arise from the fact that the researcher is well acquainted with the student participants and will allow for more honest and in depth reporting on issues by the students.

The transcriptions of the data will remain in the possession of the researcher and her supervisor and will not be made available to outside parties without permission of the study participants. Hard copies of the data will be kept locked when not in use and any electronic versions will only be accessible via a password.

Once completed all transcribed data will be destroyed.

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All data collected in the focus groups will only be used for the purposes of the Masters dissertation and for possible follow up journal publications.

Further information

Should you require any further information about this study please feel free to contact the following individuals. Any questions or concerns will be dealt with in utmost confidence.

Researcher

Heather Talberg
Clinical educator
Department of Health and Rehabilitation Sciences
F45 Old main Building
Groote Schuur Hospital
Observatory
Email: heather.talberg@uct.ac.za
021 4066171 or 0834628187

Supervisor

Kevin Williams, PhD
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Centre for Higher Education Development
Room 3.018 ; Leslie Social Sciences Building
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Head of Ethics Committee: School of Education

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E-mail: marc.blockman@uct.ac.za

University of Cape Town

University of Cape Town

School of Health and Rehabilitation Sciences

Faculty of Health Sciences

F45 Old Main Building, Groote Schuur Hospital,

Observatory 7925

Tel: +27 (0) 21 406 6401 Fax: +27 (0) 21 406 6323

INFORMED CONSENT

University of Cape Town

Project Title

The Search for Professional Identity; a personal journey for Physiotherapy students

This study has obtained ethical approval from the Faculty of Health sciences Human Research Ethics Committee as well as the School of Education Ethics Review Committee

I ____________________________ ____________ have read the attached information sheet.

I understand what is required from me as a participant in this study and any questions I have had have been answered.

I agree to participate in the **questionnaire** component of this study. I am aware that I will be able to withdraw as a participant at any stage without any negative consequences

Signed

________________________________ ________________________________

Participant Date and Place

__________________________________ _____________________

Researcher Date and Place

University of Cape Town

School of Health and Rehabilitation Sciences

Faculty of Health Sciences

F45 Old Main Building, Groote Schuur Hospital,

Observatory 7925

Tel: +27 (0) 21 406 6401 Fax: +27 (0) 21 406 6323

INFORMED CONSENT

University of Cape Town

Project Title

The Search for Professional Identity; a personal journey for Physiotherapy students

This study has obtained ethical approval from the Faculty of Health sciences Human Research Ethics Committee as well as the School of Education Ethics Review Committee.

I ____ have read the attached information sheet.

I understand what is required from me as a participant in this study and any questions I have had have been answered.

I agree to participate in the **student focus group** component of this study and will respect the confidentiality of the other participants. I am aware that I will be able to withdraw as a participant at any stage without any negative consequences

University of Cape Town

Signed

______________________________ ______________________________

Participant Date and Place

______________________________ ______________________________

Researcher Date and Place

School of Health and Rehabilitation Sciences

Faculty of Health Sciences

F45 Old Main Building, Groote Schuur Hospital,

Observatory 7925

Tel: +27 (0) 21 406 6401 Fax: +27 (0) 21 406 6323

INFORMED CONSENT

University of Cape Town

Project Title

The Search for Professional Identity; a personal journey for Physiotherapy students.

This study has obtained ethical approval from the Faculty of Health sciences Human Research Ethics Committee as well as the School of Education Ethics Review Committee.

I ____ have read the attached information sheet.

I understand what is required from me as a participant in this study and any questions I have had have been answered.

I agree to participate in the **interview** component of this study. I am aware that I will be able to withdraw as a participant at any stage without any negative consequences

Signed

______________________________ ______________________________

Participant Date and Place

______________________________ ______________________

Researcher Date and Place

University of Cape Town

3 September 2011

Dear Students

Thank you for participating in last month's Focus group.

As a follow up to that I would appreciate if you could answer to the following questions. This will help to clarify 2 aspects of the findings.

In the focus group you acknowledged that the learning in your undergraduate training is controlled largely by 3 groups of individuals; namely **Academic members of staff; clinical educators and clinicians**. You also noted that they are not always on "the same page" when it comes to input.

1. Can you define what you learn from each of these different individuals – both in terms of knowledge and behaviours? If applicable do you think you learn different things from them in different contexts – for an example when a lecturer also becomes a supervisor. What impact does this learning have on the development of your identity as a future physiotherapist?

Secondly, you listed Communication skills very highly in the attributes you considered necessary for ongoing competent practice.

2. Can you define what is encompassed in your understanding of communication as a skill? Does it consist of more than one component and who does it include in its use?

In the interest of preserving your anonymity of your answers please return this mail to Pamela Hoffman on pamelahoffman@gmail.com

Thanks

Heather Talberg

University of Cape Town

Interview Questions

1. What is your understanding of professional identity?
2. How do you define your own identity?
3. What are the characteristics that students' display which you feel will assist them in their long term career pathways? Does this reflect skills as well as attitudes, behaviours?
4. How much do you feel the programme teaches them about these professional attributes?
5. What is your role in assisting students in developing an identity as a physiotherapist?
6. How do you think you do this?
7. Why do you think some students acquire this notion of professional identity more readily than others?

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Via email: Received 13/06/2011

Dear Heather,
I have approved the research in terms of the research ethics requirements of the School of Education and the Humanities Faculty, I have retained the jointly-signed Ethics Declaration form and I have passed on the remaining documents for Rudy Laugksch to approve your MoU. After that they will go to Shoma Moodley at the Faculty office for registration. You should probably get back what you need from her for purposes of submission to the Health Sciences ethics review processes.
Regards,

Mastin Prinsloo
Associate Professor
School of Education
University of Cape Town
Tel: 021 650 3821

University of Cape Town

UNIVERSITY OF CAPE TOWN

Faculty of Health Sciences
Human Research Ethics Committee
Room E52-24 Groote Schuur Hospital Old Main Building
Observatory 7925
Telephone [021] 406 6626 • Facsimile [021] 406 6411
e-mail: shuretta.thomas@uct.ac.za

27 June 2011

Sent via Internal mail & Email

HREC REF: 292/2011

Mrs H Talberg,
Physiotherapy
Health & Rehab
OMB

Dear Mrs Talberg,

PROTOCOL NUMBER 292/2011

PROJECT TITLE: THE SEARCH FOR PROFESSIONAL IDENTITY: A PERSONAL JOURNEY FOR PHYSIOTHERAPY STUDENTS

Thank you for submitting your new study to the Faculty of Health Sciences Human Research Ethics Committee

It is a pleasure to inform you that the Ethics Committee has formally approved the above-mentioned study.

Please will you include a sentence in the information sheet for the focus groups, under the section on confidentiality, which states that you cannot guarantee confidentiality as participants may discuss the contents of the focus group outside the session.
However, you can ask potential participants to respect each other' confidentiality.

Approval is granted until 28 June 2012

Please submit an annual progress report (FHS016) if the research continues beyond the expiry date. Please submit a brief summary of findings if you complete the study within the approval period so that we can close our file.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please quote the HREC. REF in all your correspondence.

Yours sincerely

A/PROF MARC BLOCKMAN
CHAIRPERSON, FHS HUMAN ETHICS

Federal Wide Assurance Number: FWA00001637.
Institutional Review Board (IRB) number: IRB00001938

This serves to confirm that the University of Cape Town Human Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration (FDA-USA), International Convention on Harmonisation Good Clinical Practice (ICH GCP) and Declaration of Helsinki guidelines.

The Human Research Ethics Committee granting this approval is in compliance with the ICH Harmonised Tripartite Guidelines E6: Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95) and FDA Code Federal Regulation Part 50, 56 and 312.