

**THE EXPERIENCES AND ATTITUDES OF STUDENTS AND LECTURERS
REGARDING PEER PHYSICAL EXAMINATION IN THE FACULTY OF HEALTH
SCIENCES AT THE UNIVERSITY OF THE FREE STATE**

by

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DECLARATION

I, Maryna Gertruida Maria Hattingh, hereby declare that the content of this mini-dissertation that I herewith submit to the University of the Free State is the result of my own independent work and that I have never submitted it at any other institution for the purpose of obtaining a qualification. I have acknowledged the persons that assisted me while conducting this study. I declare that this mini-dissertation has been submitted for the first time at this institution towards obtaining a Master's degree in Health Professions Education.

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LIST OF ACRONYMS

BLS	Basic life support
CCTV	Closed Circuit Television
CUADS	Center for Universal Access and Disability Support
CUT	Central University of Technology
EFS	Examining Fellow Student
EP	Examining Patients
FGW	Fakulteit Gesondheidswetenskappe
FoHS	Faculty of Health Sciences
GRB examination	Peer male and female genital, rectal or female breast examination
OBC	Objectified body consciousness
OSCE	Objective Structured Clinical Examination
OT	Occupational Therapy
PAL	Peer-assisted learning
PMI	Point of maximal impulse
PMS	Peninsula Medical School
PPE	Peer physical examination
SA	South Africa
SANC	South African Nursing Council
SP's	Standardised patients
UFS	University of the Free State
UV	Universiteit van die Vrystaat
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organisation
USA	United States of America

SELECTED DEFINITIONS AND TERMS

Experiential learning model: Process where knowledge is developed from the combination of grasping and transforming experience (Kolb 1984).

Simulated or standardised patients: A simulated or standardised patient is a person who has been trained to simulate accurately the history, symptoms and physical and emotional characteristics of a patient for the instruction, assessment or practice of healthcare students (Hargraves 2012:37-38).

Health professions students: This includes all students of the different schools studying at the Faculty of Health Sciences of the University of the Free State. It includes students of the School of Medicine, School of Nursing and School for Allied Health Professions.

Informed consent: Informed consent is the permission obtained from a patient, in full knowledge of the risks involved, possible consequences and alternatives available, to perform a specific test or procedure and is required before most invasive procedures are performed or a patient is admitted to a research study (Mosby 2009:online).

OSCE: An OSCE can be described as an assessment method where clinical competence is assessed in a structured way with every candidate completing the same task in the same amount of time and gets marked according to the same assessment tool (Etheridge & Boursicot 2013:309).

Osteopathy: Osteopathy is an alternative medicine form that accentuates the physical manipulation of the body's muscle tissue and bone (Consorti, Mancuso, Piccolo, Consorti & Zurio 2013:1). The profession is regulated under the allied health professions in SA, but there are very few practitioners in SA and no undergraduate training.

Peer physical examination: peer physical examination is the learning method where students perform physical examinations on each other for the purpose of education (Koehler, Currey & McMenamin 2014).

Primary sources in research: description of studies written by the researchers who originally conducted the research (Botma, Greeff, Mulaudzi & Wright 2010:65).

SUMMARY

Key terms: Peer physical examination, guidelines/policy, health professional students, focus group interviews, qualitative research design.

Health professions students use peer physical examinations (PPE) for the purpose of training globally, but in many institutions no formal policy or guidelines exists. There are many benefits of the use of PPE e.g. students are readily available to practise on, students need not to be financially compensated and it has proven to increase students' clinical skills and confidence, but some students may not want to participate in PPE for various reasons like religion, culture etc. Peer physical examination is the physical examination of a student by a fellow student to enhance his/her clinical skills. This is done under the supervision of a professional person or lecturer. Currently no policy or guidelines regarding peer physical examination exists in the Faculty of Health Sciences (FoHS) at the University of the Free State (UFS) and it is required from the students to participate in peer physical examination during their studies.

An in-depth study was conducted to establish the attitudes and experiences of students and lecturers regarding the use of PPE in the FoHS using focus group interviews with students and lecturers. The content of a PPE policy for the FoHS at the UFS was explored with the second question of the focus group interviews. The study was done in the field of Health Professions Educations in the domain of management and leadership and wanted to provide a guideline that may be used to direct students and lecturers when participating in PPE and to explore what is needed to be included in the content of a PPE policy.

A qualitative research design was followed with three focus group interviews as data collection method and the compilation of an extensive literature review on the topic. One focus group was with lecturers of all three schools in the FoHS of the UFS who participate in teaching students' clinical skills and surface anatomy and the other two with students from all three Schools in the FoHS, UFS. Data were transcribed verbatim by the researcher and themes, categories and subcategories identified. Five themes were identified from the collected data. The identified themes, categories and subcategories were compared and discussed with the findings and recommendations of an extensive literature review in mind.

The literature review provided a contextual and conceptual understanding of PPE and the benefits and pitfalls associated with the use of it. Perspectives on the use of PPE in different professions were discussed as well as the advantages and disadvantages of the introduction of a policy on PPE at various universities globally.

The identified themes were:

- Value of PPE
- Ethical considerations when using PPE
- Student safety
- Student concerns
- Miscellaneous.

The majority of participants agreed that the use of PPE is beneficial to students. The participants agreed participation in PPE increase competence levels in clinical skills, improve confidence and communication skills and assist them to act professionally. Some participants were concerned about educator supervision when practising on peers and some felt that flipping the classroom will benefit students and lecturers as less time will be spent on lecturing and more on the actual practising of the various clinical skills.

This study provided recommendations on the content of a PPE policy for the use of PPE from the perspective of health profession students and lecturers from the FoHS at the UFS. The results may be used as guidelines to formulate a PPE policy for the FoHS at the UFS.

OPSOMMING

Sleuteltermes: Portuurgroep fisieke ondersoeke (PPE), beleidsriglyne/beleid, gesondheidsorg student, fokusgroep onderhoude, kwalitatiewe navorsing ontwerp.

Wêreldwyd maak gesondheidsorg studente gebruik van portuurgroep fisieke ondersoeke (PPE), maar in baie instellings bestaan daar geen formele beleid of riglyne daarvoor nie. Daar is baie voordele daaraan om van PPE gebruik te maak; bv. daar is altyd studente beskikbaar om op te oefen: dit is nie nodig om studente finansiëel te vergoed nie en dit is bewys dat dit studente se kliniese vaardighede en selfvertroue verbeter, maar nie alle studente wil deelneem aan PPE nie. Daar is verskeie redes daarvoor, soos geloof, kultuur ens. PPE is die fisieke ondersoek van 'n student deur 'n ander student om sy/haar kliniese vaardigheid te verbeter. Dit word gedoen onder toesig van 'n professionele persoon of dosent. Tans in die Fakulteit Gesondheidswetenskappe (FGW) aan die Universiteit van die Vrystaat (UV) bestaan daar geen beleid of riglyne met betrekking tot portuurgroep fisieke ondersoeke nie, maar dit word van studente vereis om mee te doen daaraan gedurende hulle studies.

Deur gebruik te maak van fokusgroep onderhoude met die studente en dosente van die FGW is 'n diepgaande studie gedoen om vas te stel wat die houding en ervaring van studente en dosente is in verband met die gebruik van PPE. Die tweede vraag van die fokusgroep onderhoude het gehandel oor die inhoud van 'n PPE beleid vir die FGW van die UV. Hierdie studie is geleë in die veld van Gesondheidsorg-onderwys in die domein bestuur en leierskap, en poog om riglyne te verskaf aan studente en dosente aangaande deelname aan PPE en ook te bepaal wat moontlik ingesluit moet word in die inhoud van 'n portuurgroep fisieke ondersoek beleid.

'n Kwalitatiewe navorsing ontwerp is gevolg met drie fokusgroep onderhoude as data insamelingsmetode asook die samestelling van 'n uitgebreide literatuuroorsig van die onderwerp. Een fokusgroep onderhoud is gehou met deelnemers uit die geledere van die dosente van die drie verskillende skole binne die FGW, UV wat kliniese vaardighede of oppervlak anatomie doseer en die ander twee met studente van die drie verskillende Skole aan die FGW, UV. Ingesamelde data is deur die navorser verbatim getranskribeer en temas, kategorieë en sub-kategorieë geïdentifiseer. Vyf temas is geïdentifiseer uit die versamelde data. Die temas, kategorieë en sub-kategorieë is vergelyk en bespreek met die bevindinge en aanbevelings van die uitgebreide literatuuroorsig in gedagte.

Die literatuurstudie fokus op die kontekstualisering en konseptualisering van PPE en die geassosieerde voor- en nadele van die gebruik daarvan. Perspektiewe op die gebruik van PPE in verskillende professies is bespreek tesame met die voor en nadele wat die inwerkingstelling van 'n beleid op PPE aan verskeie universiteite wêreldwyd inhou.

Die geïdentifiseerde temas is:

- Die waarde van PPE
- Etiese oorwegings wanneer PPE gebruik word
- Veiligheid van studente
- Bekommernisse van studente
- Allerlei.

Die meerderheid deelnemers het saamgestem dat die gebruik van PPE tot die studente se voordeel is. Deelnemers het saamgestem dat deelname aan PPE die studente se bevoegdheid in kliniese vaardighede verbeter asook hul selfvertroue en kommunikasie vaardighede. Dit help hul ook om professioneel op te tree. Sommige van die deelnemers was bekommerd oor die toesig van die dosente wanneer daar op die portuurgroep geoefen word en voel dat om die klas om te keer (flipping the classroom) tot voordeel van die beide die studente en dosente sal wees aangesien minder tyd spandeer sal word op lesings en meer op die in-oefening van die verskillende kliniese vaardighede.

Aanbevelings is gemaak in verband met die inhoud van 'n beleid op portuurgroep fisieke ondersoek vanaf die perspektief van gesondheidsorg studente en dosente van die FGW, UV. Die resultate kan moontlik as riglyn gebruik word om 'n beleid te formuleer op die gebruik van portuurgroep fisieke ondersoek vir die FGW, UV.

THE EXPERIENCES AND ATTITUDES OF STUDENTS AND LECTURERS REGARDING PEER PHYSICAL EXAMINATION IN THE FACULTY OF HEALTH SCIENCES AT THE UNIVERSITY OF THE FREE STATE

CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

An in-depth investigation was done by the researcher to establish what the experiences and attitudes of students and lecturers regarding peer physical examination (PPE) at the Faculty of Health Sciences (FoHS) of the University of the Free State (UFS) are. The researcher used the information gathered to determine what aspects could be included in a PPE policy. Health professions students use peer physical examinations (PPE) for the purpose of training of clinical physical examination globally and in South Africa (SA), but in many institutions no written policy or guidelines exists. Peer physical examination is the physical examination of a student by a fellow student to enhance his/her clinical skills. This is done under the supervision of a professional person or lecturer (Consorti, Mancuso, Piccolo, Consorti & Zurio 2013:1-7; Koehler, Currey & McMenamin 2014:online; McLachlan, White, Donnelly & Patten 2010:e101).

The aim of the study was to investigate what the experiences and attitudes of students and lecturers are regarding PPE and what the content of a peer physical examination policy for the FoHS, UFS could be. Focus groups were used to collect the data.

1.2 BACKGROUND TO THE RESEARCH PROBLEM

The earliest reference of PPE was in 1982 by Metcalf, Prentice, Metcalf and Stinson as referenced by McLachlan *et al.* (2010:e101). According to Koehler *et al.* (2014:online) PPE is the learning method where students perform physical examinations on one another for the purpose of education. Consorti *et al.* (2013:1-7) define PPE as the “learning activity where students act as models for their peers to learn basic skills and simple non-invasive procedures”. “PPE is the process by which students examine each other as part of their learning process in surface anatomy and clinical skills” (McLachlan *et al.* 2010:e101). This usually occurs in the presence of a tutor or other academic staff member.

PPE involves role play from the students where they either play the part of the examiner (doctor, nurse etc.) or the patient who gets examined. They change roles after a while and then the examiner becomes the patient and *vice versa* (Wearn, Rees, Bradley & Vnuk 2008:1218). PPE is widely used in healthcare sciences to teach students clinical skills and surface anatomy e.g. in physiotherapy (Delany & Frawley 2012:33-39), medicine (Reid, Kgakololo, Sutherland, Elliott & Dodds 2012:55-62), nursing (Wearn, Bhoopatkar, Mathew & Stewart 2013:84-888) and other health professions (Hendry 2013:807-815).

1.2.1 The current status on PPE

In a letter to the editor of the Medical Teacher, Kelleher and Schafer (2014:826-827) of the University of Queensland, Australia explained how the introduction of a PPE policy changed the mind-set of students and facilitators about PPE at their School of Medicine. The policy which was drafted in 2013 and implemented since the start of the academic year in 2014 has been accepted well by both students and clinicians. The policy included topics recommended by Koehler and McMenamin (2014:431-432), such as informing students of the benefits of PPE, general information regarding PPE, the importance of written consent, how to handle problems which may arise from the use of PPE and how not to compromise students who choose to not participate in PPE.

Research on PPE was also conducted at different Schools of medicine in the UK, Hong Kong and USA (Chen, Yip, Lam & Patil 2011:e532; Mavis, Ogle, Lovell & Madden 2002:135-140; Rees, Bradley, Collett & McLachlan 2005:599). As far as could be ascertained through internet and library research, no research on the use of PPE had been done in Africa or South Africa prior to this study.

1.2.2 Rationale for the use of PPE

There is a pool of students available in each class to assist in practising practical and communication skills before the students need to face a real patient and there are no costs involved in practising on one another while simulated patients need to be paid. A simulated or standardised patient (SP) is a person who has been trained to simulate accurately the history, symptoms and physical and emotional characteristics of a patient for the instruction, assessment or practice of healthcare students (Hargraves 2012:37-38). Simulated patients can be used in simulated scenarios where students must assess the patient by either taking the history or performing a physical examination on the

simulated patient (Hargraves 2012:37-38). Students are able to give immediate feedback to their peers on their performance or the lack of performance. It is always better to practice new skills on their classmates before actually performing it on a patient as they can accidentally cause discomfort or harm when performing an examination incorrectly. It could also assist in teaching the students empathy. When they know how a specific procedure feels, it help them to relate to the feelings or anxiety of the patients (Chen *et al.* 2011:e528-e540). Rees *et al.* (2005:599-605) add that PPE ensures that students get used to a wide range of body shapes and sizes.

According to Chen *et al.* (2011:e528) students who understand why PPE is used and the importance thereof are generally more willing to participate in PPE. The willingness of students to participate in PPE depends on their concerns to accidentally cause harm to fellow students; find something abnormal with one of their classmates or somebody finding something abnormal.

Student numbers increased dramatically over the past years while patients stay in hospital for shorter periods of time. This results in fewer patients available for students to practise on. There is an increase in the knowledge of patient's rights, resulting in more patients refusing to consent to students examining them (Braunack-Mayer 2001:681-686; O'Neill, Larcombe, Duffy & Dorman 1998:433- 437; Outram & Nair 2008:274). Clinicians have less time to teach students basic skills because of an increase in the demand for their services; this require students to learn these skills away from the clinical setting but still on real people (Rees, Wearn, Vnuk & Sato 2009b:104).

Some of the factors concerning students participating in PPE include: acceptability to practice on peers, acceptability to practice on somebody from another gender, race or age, ethnicity and culture (especially students from certain religious denominations) and students in multicultural classes. In a study conducted on undergraduate medical students from the University of Hong Kong Li Ka Shing Faculty of Medicine from 2006 to 2008, it was found that students are not willing to examine or being examined when it is intimate body areas but they are willing to participate in peer physical examination if it is non-intimate body areas (Chen *et al.* 2011:e532). The results of the study also indicated that more students were willing to examine their peers but fewer were willing to be examined (Chen *et al.* 2011:e532). The students are also more willing to engage in peer physical examination when they are from the same gender and, in general, male students are more willing to do so than their female counterparts.

1.2.3 Ethical consideration in PPE

In an article by Braunack-Mayer (2001:681-686), some ethical issues on PPE are discussed. For many years, PPE had been conducted in medical schools without anybody asking questions about it. In recent years with all the emphasis on patients' rights and general human rights, it is essential that PPE must be under the magnifying glass. As seen in the previous paragraphs, students have many concerns when participating in PPE, but what about ethical issues? Ethical issues can arise within heterogeneous groups but even homogeneous groups or certain situations can give rise to ethical problems.

There are a few questions that need to be answered. The first question that arises is: what will happen if a student finds something wrong with one of their fellow students? The fact that they know each other very well has an impact on their feelings of unsettlement regarding discovered health issues.

Secondly, students must have the same freedom to say no to participate in PPE than to decline an invitation to participate in a research study. In practice, it often results in student participation out of fear for jeopardised academic progress. When students agree to participate in PPE, there could be an element of undue influence. Medical students are particularly at risk for this type of behaviour, because their relationship with their lecturers starts at undergraduate level and continue sometimes up to specialisation.

Ethical issues are often not clearly defined. There are certain benefits to using PPE, like learning to treat patients with respect - but, on the other hand, the student may feel s/he does not have a choice participating in PPE - which may have a negative effect on him/her.

1.2.4 Factors that will increase student willingness to participate in PPE

Rees (2007:805) suggests that a discussion about professionalism and ethics regarding body image, not only with PPE but also in the wider curriculum, will assist in making students more positive about PPE, especially female students. Guidelines on appropriate behaviour and communication towards sensitive issues like body image will also contribute towards student professionalism in general.

Lecturers need to be educated on the importance of cultural and social sensitivity to students' needs and when they ask in class who will be the "patient", not to pinpoint a

specific person, but rather put forward a general request for anyone to come forward and be the person to be examined. Braunack-Mayer (2001:685) proposed that lecturers ensure that there are always alternatives available for groups of students who do not want to participate in PPE. Furthermore, students and staff members must be informed about the alternatives to ensure that the necessary arrangements can be made timeously. Discussions about PPE are also important to clarify the needs, expectations and concerns of students on participating or not in PPE (Braunack-Mayer 2001:685).

1.2.5 Informed consent and PPE

Patient informed consent could be defined as the permission obtained from a patient (person), in full knowledge of the risks involved, possible consequences and alternatives available, to perform a specific test or procedure and is required before most invasive procedures are performed or a patient is admitted to a research study (Mosby medical dictionary 2009:online).

Outram and Nair (2008:275) conclude that student participation in PPE must always be voluntarily, in groups where they choose their own partners and only for non-intimate body areas. There must be a written, clear policy or protocol regarding PPE and preferably formal consent must be obtained from the students before engaging in PPE. Teaching staff needs training on the handling of suspected medical problems of students identified during PPE.

1.2.6 PPE policy

The use of PPE is widely accepted at healthcare training institutions everywhere in the world and although students generally feel positive about participation, there are some who would rather prefer, for various reasons e.g. fear of victimisation, not to participate. There are various concerns, as previously stated in this paper, from the students' side regarding the use of PPE and to address all these concerns, it is advisable for universities to have a clear policy on PPE. Such a policy should address issues like students who do not want to participate in PPE, general information like clothes to be worn, consent for PPE and then procedures to follow should an incident regarding PPE occur (Koehler & McMenamin 2014:431). The policy should include issues such as privacy settings, the availability of educators/tutors to supervise the PPE and inclusion or not of intimate body areas (O'Neill *et al.* 1998:433- 437).

Confidentiality and the procedure that should be followed should there be an abnormal finding must be explained to the students prior to PPE. The policy must clearly indicate the purpose of PPE, stating that it is an educational tool that enhances clinical examination skills. In the policy, it should be indicated how the student who chooses not to participate in PPE will be accommodated to prevent compromising learning activities (Wearn & Bhoopatkar 2006:957-963).

The subsequent paragraph will discuss the problem that has been identified on peer physical examination at the Faculty of Health Sciences (UFS).

1.3 PROBLEM STATEMENT AND RESEARCH QUESTIONS

It can be accepted that some form of PPE is used in almost all healthcare training institutions globally and in South Africa. In the literature, some institutions introduced some form of peer physical examination policy, but as far as could be ascertained there is no published evidence of any PPE policies in South Africa. Currently no evidence of policy or guidelines regarding PPE in the FoHS at the UFS could be established and it is required from the students in all schools of the faculty to participate in PPE during their studies. The researcher contacted the programme directors of the different schools within the Faculty of Health Sciences, head of departments and lecturers regarding a PPE policy or guidelines in the different schools within the Faculty of Health Sciences (Personal communication).

The problem that was addressed is the absence of a clear policy regarding the use of PPE in the FoHS, UFS. Some educators are oblivious about the importance of a PPE policy. The absence of a clear policy is especially important in South Africa with our diverse student cultures (cf.1.2.2). Educators and students must be educated and informed regarding their roles, responsibilities and rights on participating in PPE. As far as could be ascertained, no studies on this topic had been done in South Africa. The databases consulted are Academic Search Complete, Africa-Wide Information, CINAHL with Full Text, ERIC, Health Source, MasterFILE Premier, MEDLINE with Full Text, PsycARTICLES, PsycEXTRA, PsycINFO, RILM Abstracts of Music Literature, SocINDEX with Full Text and SPORTDiscus with Full Text. Information could only be obtained from Academic Search Complete, Africa-Wide Information, MEDLINE with Full Text and PsycINFO.

The following research questions were addressed by the objectives of the study:

- i What are the attitudes and experiences of students regarding the use of PPE at the FoHS, UFS?
- ii What are the attitudes and perceptions of lecturers regarding PPE at the FoHS, UFS?
- iii What should the content of a PPE policy or guidelines according to the participants of the study be?

1.4 OVERALL GOAL, AIM AND OBJECTIVES OF THE STUDY

The goal, aim and objectives of the study will be outlined in the following paragraphs.

1.4.1 Overall goal of the study

The focus of the study was to determine what the experiences and attitudes of students and lecturers in the FoHS at the UFS are regarding PPE and what the content of a PPE policy at the FoHS, UFS should be. The intention is to develop guidelines to support a PPE policy which can be used by all three schools within the FoHS, UFS and other healthcare training institutions in the country.

1.4.2 Aim of the study

The aim of the study was to determine what the experiences and attitudes of students and lecturers in the FoHS at the UFS are regarding PPE and what they suggest should be included in a PPE policy.

1.4.3 Objectives of the study

To achieve the purpose of the study, the following objectives were pursued:

- i. To ascertain the attitudes and experiences of students regarding the use of PPE at the FoHS, UFS [**Focus groups were conducted with students to answer the question**]
- ii. To ascertain the attitudes and perceptions of lecturers regarding PPE use at the FoHS, UFS [**Focus groups were conducted with lecturers to answer the question**]

- iii. To identify the content to be included in a PPE policy or guidelines [**A literature study as well as focus groups has been conducted**].

1.5 DEMARCATION OF THE FIELD AND SCOPE OF THE STUDY

This study was done in the field of Health Professions Education and lies in the domain of management and leadership. The study is interdisciplinary as it reaches between Health Professions Education and the different professions in the Faculty of Health Sciences.

The participants in the focus groups were students and lecturers of the School of Medicine, School of Nursing and School of Allied Health Professions who are or were involved in PPE. This involvement is individual experience regarding the use of PPE in the case of the students or using it as an educational tool as far as the lecturers are concerned.

As individual background information, the researcher is a registered occupational health nurse and nurse educator with a total of twenty-five years nursing experience including three years' teaching experience at the Faculty of Health Sciences, UFS. The researcher has a keen interest in the management of human resources and completed a postgraduate diploma in Labour Law. Various courses were also completed regarding the health and safety of employees. The well-being of students and lecturers is a concern for the researcher. Management processes, guidelines and structures that need to be in place for the day-to-day organisation, implementation and prevention of problems concerning the practise of PPE are of utmost importance.

As far as the timeframe is concerned, the study was conducted between February 2015 and December 2016, with the focus groups being conducted in April, May and August of 2016.

1.6 SIGNIFICANCE AND VALUE OF THE STUDY

Peer physical examination is used in all three schools of the Faculty of Health Sciences at the UFS. This study provides information that could ultimately lead to the development of a PPE policy to guide educators and students when PPE is being used. This policy could assist in the prevention of problems regarding the use of PPE in the classroom

and also contribute to the informed decision that students and lecturers have to make regarding their participation in PPE.

A PPE policy may assist in providing a more structured and beneficial environment for the students and educators making use of PPE.

1.7 RESEARCH DESIGN OF THE STUDY AND METHODS OF INVESTIGATION

The research design includes all the steps to reach the outcomes (aims) of the study; it is the plan of what the researcher wants to achieve and how it will be achieved (de Vos, Strydom, Fouche & Delport 2011:143). The research design includes the beneficiaries of the research and must include ethical considerations to validate the research. The ethical requirements that need to be addressed are defined in the Declaration of Helsinki, which clearly states that “all research involving people must conform to generally accepted scientific principles and based on a thorough knowledge of the scientific literature or other sources of information” (Botma, Greeff, Mulaudzi & Wright 2010:5-6).

1.7.1 Design of the study

This study was a descriptive, qualitative study and made use of focus group interviews to explore the attitudes, experiences and perceptions of students and lecturers regarding PPE. The focus group interviews were conducted by facilitators experienced in the technique and were conducted in a private and quiet setting to enhance conversation.

A more detailed description of the qualitative design of the study is in Chapter 3.

1.7.2 Methods of investigation

Two research methods, namely a literature review and focus group interviews, were used by the researcher and form the basis of the study. Research is undertaken within an existing knowledge base and therefore it is necessary to prove that the researcher had critically reviewed the existing literature. The literature study should provide a conceptual and contextual framework for the research and must reflect research done by recognised researchers. The literature study brought a clearer understanding of the identified problem and puts the current study in perspective according to the existing knowledge on PPE. The literature study also provide information on what research has already been done on the topic.

The researcher used focus group interviews to obtain the required information. An interview guide with pre-determined questions grounded by the literature review was used. The questions were broad and asked in a non-directive way. Participants were able to answer the questions focusing on any part of the question. The groups were conducted by an experienced facilitator who directed the discussions while the researcher acted as co-facilitator who arranged all logistics and take field notes. Field notes include the body language of participants, the atmosphere in which the focus group takes place, group dynamics and personal interpretations of the discussion as it continues.

The comprehensive portrayal of the population, sampling methods, data collection and techniques, data analysis and reporting and ethical consideration is given in Chapter 3.

A graphic overview of the study is provided in Figure 1.1.

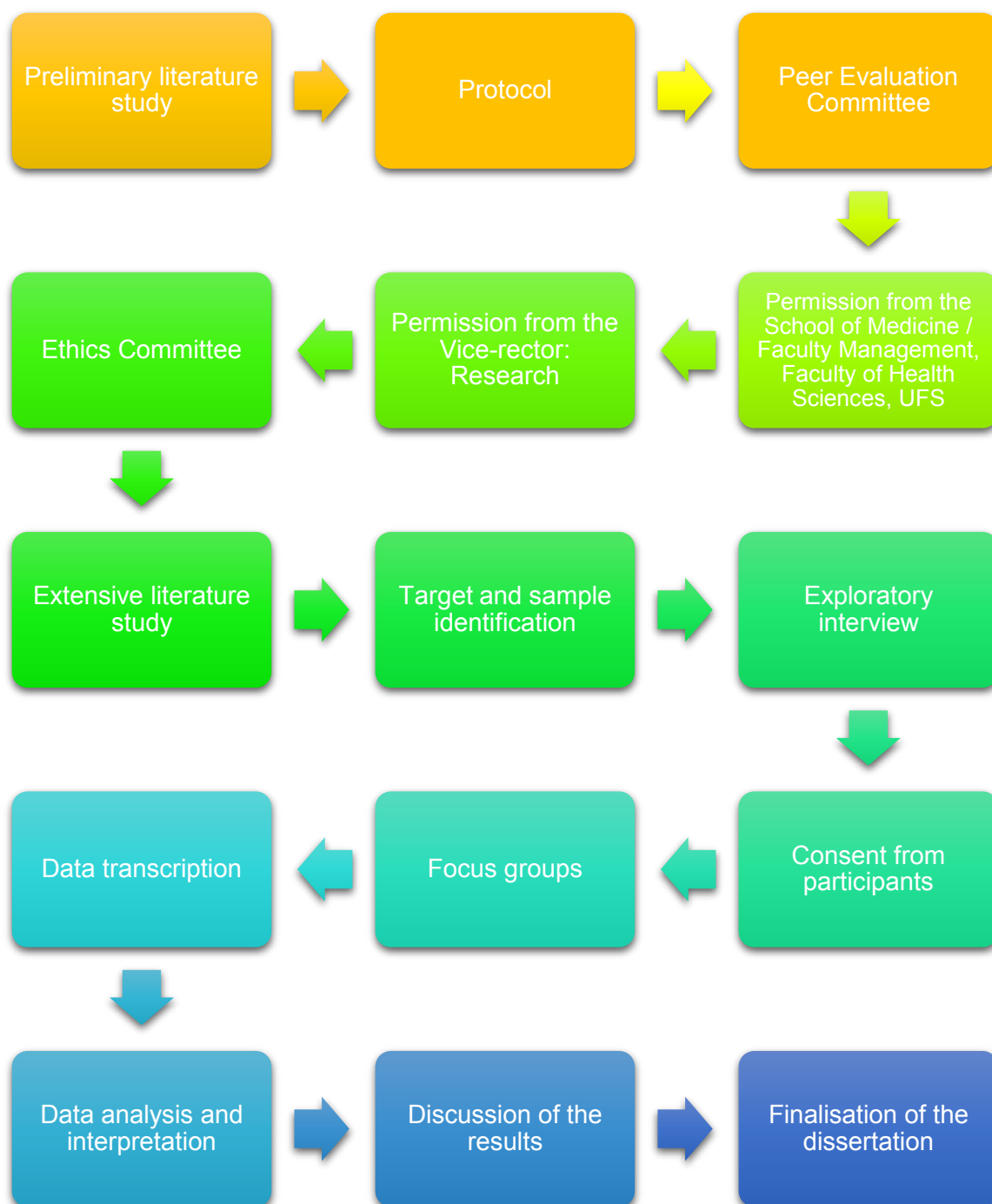


FIGURE 1.1: A SCHEMATIC OVERVIEW OF THE STUDY
(Compiled by the researcher, Hattingh 2015)

1.8 IMPLEMENTATION OF THE FINDINGS

The report containing the findings of the research will be brought to the attention of the Dean and Management of the Faculty of Health Sciences. An article will be drafted from the results of the research and submitted to academic journals with a view to publication as it is a requirement of the academic institution in which the research had been done.

The research findings will also be made available to other academic institutions who might be able to use it.

1.9 ARRANGEMENT OF THE REPORT

In this chapter, Chapter 1, ***Orientation to the study***, the background to the study was provided and the problem, including the research questions, was stated. The overall goal, aim and objectives were stated and the research design and methods that were used were briefly discussed to give the reader an overview of what the report contains. It further demarcated the field of the study and the significance of the study for the Faculty of Health Sciences at the UFS.

In Chapter 2, ***Theoretical foundation for the investigation of peer physical examination***, the concept Peer Physical Examination was discussed and put into context in the study. This chapter will serve as the theoretical background to the study.

In Chapter 3, ***Research design and methodology***, the research design and methods applied will be described in detail. The data collecting methods and data analysis will be discussed.

In Chapter 4, ***Results of the findings of the focus group interviews***, the results of the focus group interviews will be reported.

In Chapter 5, ***Discussion of results of focus group interviews***, the findings of the focus group interviews will be discussed.

In Chapter 6, ***Conclusions, recommendations and limitations of the study***, an overview of the study, conclusion, recommendations and the limitations of the study will be provided.

1.10 CONCLUSION

Chapter 1 provides the background and introduction to the research undertaken regarding peer physical examination.

The next chapter, Chapter 2, entitled ***Theoretical foundation for the investigation of peer physical examination***, will be a study on the relevant literature regarding PPE.

CHAPTER 2

THEORETICAL FOUNDATION FOR THE INVESTIGATION OF PEER PHYSICAL EXAMINATION

2.1. INTRODUCTION

An orientation to the study was provided in Chapter 1. It included an overview and background to the research problem, a summary of the problem statement, research questions, overall goal, aim and objective of the study.

The field and scope of the study were demarcated together with the significance and value of the study and a brief summary of the research design and method of investigation. A schematic outline of the study was included and also an outline of the report.

In this chapter, a literature review provides a theoretical basis for this study. A literature review is the in-depth evaluation, clarification and summary of previous research and literature available on the topic of this study. It provides a theoretical basis and assists the researcher in determining the nature of the research (Keary, Byrne & Lawton 2012:239). This literature review focuses on PPE and the perceptions and concerns of students and lecturers regarding the use of PPE.

Before the introduction of skills training units or centres, students were trained by the Halstedian model of see one, do one, teach one (Kotsis & Chung 2013:online). This was mainly on real patients and in some cases on fellow students. Willing patients and equipment were freely available in the hospitals and to become skilled practitioners, it was required from students to practice on patients and fellow students. Due to ethical considerations, financial constraints and patient safety, this practice is no longer acceptable. At present, most training institutions for medicine, nursing and allied health professions use peer physical examination (PPE) as part of their training methods. This is specifically applicable to the undergraduate programmes where students are learning the basic skills of their future careers.

In this chapter, the role of PPE in the training of clinical skills for healthcare students will be discussed. A schematic overview of the different aspects that will be discussed and that will form the theoretical framework of the study can be seen in Figure 2.1.

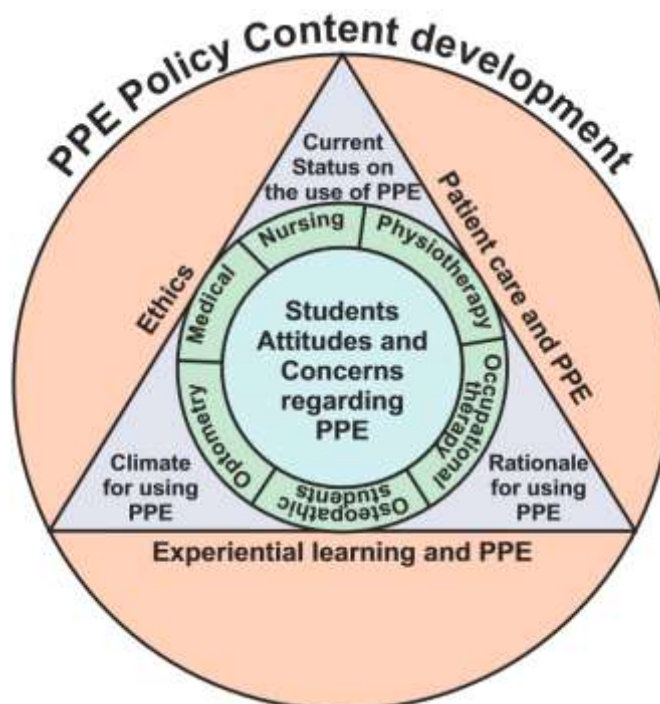


FIGURE 2.1: SCHEMATIC OVERVIEW OF THE DIFFERENT ASPECTS OF CHAPTER 2
 [Compiled by the researcher, Hattingh 2016]

2.2. WHAT IS PEER PHYSICAL EXAMINATION?

To recap, the earliest reference to peer physical examination of students was in 1982 in an article by Metcalf, Prentice, Metcalf and Stinson (McLachlan *et al.* 2010:e101). According to Koehler *et al.* (2014:online) peer physical examination is the experiential learning method where students perform physical examinations on one another for the purpose of education. Consorti *et al.* (2013:1-7) explain that PPE is the “learning activity where students act as models for their peers to learn basic skills and simple non-invasive procedures.” Another definition is: “PPE is the process by which students examine each other as part of their learning process in surface anatomy and clinical skills” (McLachlan *et al.* 2010:e101). This typically happens in the presence of a tutor or other academic staff members.

PPE involves role play from the students where they either play the part of the examiner (doctor, nurse, etc.) or the patient who gets examined. They change roles after a while and then the examiner becomes the patient and *vice versa* (Wearn, Rees, Bradley & Vnuk 2008:1218). PPE is widely used in various professions in health sciences to teach students clinical skills e.g. in physiotherapy (Delany & Frawley 2012:33-39), medicine (Reid *et al.* 2012:55-62), nursing (Wearn *et al.* 2013:884-888) and other health

professions such as podiatric medicine and sports and exercise science (Hendry 2013:807-815).

The use of PPE is a good alternative for examining real patients as these students are still very inexperienced and need to learn the basic skills of patient assessment. They need to learn what can be described as “normal” in a patient before they can assess an abnormality in any patient (Koehler & McMenamin 2014:430-433). It must be emphasised that PPE is only one of the methods used to teach clinical skills. Other educational methods like videos of examinations, demonstrations of skills and the use of manikins and task trainers, standardised patients (SP’s) and virtual reality could be utilised when teaching students clinical skills (Wearn & Bhoopatkar in Hendry 2013:808).

2.3. STUDENT ATTITUDES REGARDING PARTICIPATION IN PEER PHYSICAL EXAMINATION

The use of PPE in health profession training will become increasingly important as chances to examine patients diminish, but educators do not always take the feelings of students regarding participation in PPE into consideration when a session is planned (Reid *et al.* 2012:55). Some students are more willing to participate in PPE than others and for some it is a threatening experience which they try to avoid at all cost. In general, students are more comfortable to participate in PPE if it only involves non-sensitive areas like the back, abdomen, limbs, hands, head and neck (Reid *et al.* 2012:55). The moment it involves examinations like breasts, genitals and rectal areas most students are not willing to participate (Reid *et al.* 2012:55).

The attitude that students display regarding PPE will have an impact on their engagement regarding PPE as an educational tool. It may have a negative influence on acquisition of clinical skills if they are unwilling to participate. It may even result in a change in the programme (curriculum) to accommodate these students by using a simulated patient or any alternative available.

According to Chen *et al.* (2011:e528) students who understand the reason why PPE is used and the importance thereof are generally more willing to participate in PPE as those who do not understand the importance. The willingness of students to participate in PPE depends on their concerns to accidentally cause harm to fellow students; find something abnormal with one of their classmates; or somebody finding something abnormal with

them. Generally, students were reluctant to examine the inguinal region, female chest and male genital area (Rees, Bradley & McLachlan 2004:86).

As mentioned briefly earlier, in a study conducted on undergraduate medical students from the University of Hong Kong Li Ka Shing Hong Kong, Faculty of Medicine from 2006 to 2008, it was found that students are not willing to examine or being examined when it involved intimate body areas, but they are willing to participate in peer physical examination if it is non-intimate body areas. The results of the study also indicated that more students were willing to examine their peers than were available to act as patients (Chen *et al.* 2011:e532). According to this study, the students are more willing to engage in peer physical examination when they are from the same gender and, in general, male students are more willing to participate in PPE than their female counterparts.

The attitudes of the first-year medical students towards PPE were researched in a study conducted at the Peninsula Medical School in the United Kingdom (UK) and it was found that 97% of students were willing to participate in PPE of the whole body, except the breast, inguinal and genital areas. More than 20% of students were unwilling to participate in the examination of these areas. More female students were uncomfortable with PPE than males and, in general, age and religion also played a significant role in the willingness of students to participate in PPE (Rees *et al.* 2005:599; Rees *et al.* 2004:86-88).

A study was conducted with 164 medical students of the University of Minnesota, Minneapolis at the end of their first-year (Chang & Power 2000:384-389) to test their comfort with various aspects of PPE. A questionnaire was handed out and 76% or 124 of the students responded. The topics assessed included the comfort of students with several aspects of PPE, their attitude regarding the professionalism, appropriateness and the supposed value of PPE and also towards peer breast, genital and rectal examinations and then the effect of age and gender on the response. Surveys were done to establish the comfort levels of medical students regarding sexual history taking from different patients, but no previous study focused on the comfort levels of students regarding PPE.

In the study referred to above, students were divided into groups of eight students with a supervising faculty physician and practised in pairs alternating between examiner and examinee. The only “socially sensitive” elements of PPE used there were the palpation of the chest wall for the point of maximal impulse (PMI) of the heart beat and examination

of the groin area for the femoral pulse and inguinal lymph nodes. Of the respondents 97% were comfortable with practicing PPE on their classmates and letting the classmates practise on them. Seventy-seven percent (77%) felt comfortable setting limits while being examined, but 12% were not comfortable and a further 11% were unsure about setting limits. Forty eight percent (48%) felt exposed when they had to undress for PPE in front of their peers. The majority of the students were more comfortable examining their peers of the same gender and although 97% of them felt comfortable with PPE, the figure dropped to 77% of them feeling comfortable when they performed the inguinal examination on one another. Male students (25 and older) and female students (under 25) were the most comfortable in setting limits while being examined, while older females were the most uncomfortable undressing in front of peers and older males were noticeably more comfortable undressing.

According to this study, students value the feedback on their performance from their classmates and the fact that they have more time to learn certain techniques when participating in PPE. Two of the students noted that PPE allowed them to feel how a patient feels when being examined by a doctor. Three percent of the students said that they did not feel comfortable with most aspects of PPE (Chang & Power 2000:384-389).

A follow-up study was conducted at the University of Minnesota involving fourth-year medical students. Included in this group was a group of students who had practised peer male and female genital examinations, rectal examinations and female breast examinations (GRB examinations) on one another in their first year of study at Duluth (Power & Center 2005:337-343). This study confirmed the previous study with first-year students' results. Students are comfortable participating in PPE which exclude the GRB examinations. Most of these students mentioned that peers gave them more valuable feedback than SP's and that they had more time to practice on one another than on SP's. There are a few students (6% of the sample) who did not want to participate in PPE at all.

In a study conducted at the University of Melbourne, Australia with first-year medical students who did not have any prior experience of PPE, but needed to participate in it as part of their course (Reid *et al.* 2012:55-62), it was found that male and female students were generally positive about participating in PPE as part of their course. The more positive they felt regarding PPE, the more willing they were to participate in all examination types where PPE is being used.

According to Wearn *et al.* (2013:885), there are some differences between nursing and medical students that need to be taken into consideration when discussing the willingness of students to participate in PPE. Nursing and medical students might have a slightly different view of the world, therefore also the different career paths they choose to follow. In general, more nursing students are female and nursing students get into contact with real patients earlier and on a more regular basis than medical students.

In a study conducted with first- and third-year predominantly female nursing students of the School of Nursing, Faculty of Medical and Health Sciences of the University of Auckland, New Zealand, it was found that they have similar attitudes as medical students regarding participating in PPE. The few male students who participated in the study were also more willing to engage in PPE, just as with the medical students. They found that students are more willing to participate with PPE as they become older and that it becomes easier with more practice, to examine patients and peers (Wearn *et al.* 2013:888).

A difference in acceptance of PPE between osteopathic students and medical students was noted in a study by Consorti *et al.* (2013:1). Osteopathy is a form of alternative medicine that focuses on the physical manipulation of the musculoskeletal system to treat some medical problems. In their field of experience, it is expected of them to touch patients, while in the medical field there are some specialities where contact is reduced or absent. These results came from a study that had been conducted in Italy using third-year medical students and first-year osteopathy students. Both groups completed the Examining Fellow Student (EFS) questionnaire and a new questionnaire that had been developed (Consorti *et al.* 2013:1). The EFS questionnaire asks from students to indicate which of twelve body areas they will not feel comfortable to examine, or do not want to examine if it is a fellow student of the same or opposite sex. The questions are: “(a) What are your general view on students performing peer physical examinations on one another? (b) If you have any problems regarding participating in PPE as the examiner, indicate what is the reason/s and why? (c) Indicate any concerns from your side about being examined by fellow students and give reasons” (Rees *et al.* 2009b:106).

The results confirmed that osteopathic students accept physical contact more readily than medical students (Consorti *et al.* 2013:3-4). This could be the result of the expectations with which students enter their respective courses. Osteopathic students see physical contact as a special competence of them. The study also indicated that

female medical students had a higher level of concern regarding PPE than male students, which was not the case for the osteopathic students.

2.4. HEALTHCARE PROFESSIONS STUDENTS AND PPE

The use of PPE in the different healthcare professions will now be discussed. As far as the researcher could ascertain, there are no articles available specifically relating to PPE in optometry and occupational therapy, although through personal communication, it is known that they also make use of PPE as teaching method.

2.4.1 Peer physical examination in medical training

Medical schools globally use PPE as part of their clinical skills training. The White Paper on the Transformation of the Healthcare System in SA (1997) resulted in the reorientation of health professions education nationally to include primary health- and community-based education to their curriculum. The emphasis is on primary healthcare, which can be described as the prevention of illness and the provision of health education to the communities: this resulted in students spending less time in hospitals and more in the community (Kruger, Nel & van Zyl 2015:161). Because of these changes, inpatient stays in hospitals have reduced and there are not always enough patients available to practise clinical skills on.

Medical students use PPE to study surface anatomy and non-invasive procedures e.g. physical examination of the lower and upper limbs on one another. According to Outram and Nair (2008: 24), the majority of medical students accept participating in PPE as part of the curriculum and will participate willingly as long as it does not involve the female chest, inguinal area, rectum and genitals of their peers. There are, however, differences in the attitudes and feelings of students according to their gender, religion, maturity and culture - with male medical students generally accepting peer physical examination more readily than female students (Rees *et al.* 2004:86-88; Reid *et al.* 2012:55). These differences will be discussed in more detail later.

2.4.2 Peer physical examination in physiotherapy

Physiotherapy relies heavily on PPE when they learn how to assess active and passive movement patterns, neuro-musculoskeletal, cardiovascular functioning and also assessment as well as treatment of pelvic floor dysfunction. Especially the latter is very

personal and includes perianal and internal digital examination and assessment of the pelvic complex. A formal tertiary qualification in pelvic floor physiotherapy is taught in a few countries only, namely Australia, the UK, and the Netherlands (Delany & Frawley 2012:33-39).

According to Delany and Frawley (2012:33-39), especially with pelvic floor muscle palpation techniques, students may feel embarrassed, exposed and anxious when they need to participate in PPE. Educators must keep in mind the fact they have a position of power relative to the student and need to respect the morals and feelings of the students regarding participation in PPE. It is then specifically of importance to gain informed consent from all participants in PPE before the start of the actual session.

The educators are ethically obliged, in the same way as they have ethical obligations to their patients, to inform the students of the risks and benefits associated with learning pelvic floor muscle techniques and also how to act professionally and ethically when performing these types of examinations. It is important that educators realise the importance of the ethical dimension to their teaching role (Delany & Frawley 2012:33-39).

2.4.3 Peer physical examination in nursing

Nursing programmes have a long tradition of early clinical exposure with first-year nursing students working in the clinical setting, sometimes even within the first month of their training. The difference between nursing students and students from other healthcare professions is the contact they have with real patients from an early stage in their studies. Whether this has an influence on the way the students feel about participating in PPE could be a contributing factor that needs to be researched (Wearn *et al.* 2013:884-888).

A study was conducted by Wearn *et al.* (2013:884-888) at the University of Auckland, New Zealand, involving all first- and third-year nursing students. The students completed the Examining Fellow Students (EFS) questionnaire to indicate which of 12 body regions they were not comfortable examining or letting somebody else examine. They also completed a modified Examining Patients (EP) questionnaire which required from them to indicate which body regions they were not comfortable to examine on patients.

The students were predominantly female, but the few male students showed a higher willingness to participate in PPE than the female students. Non-sensitive body areas in PPE are acceptable to nursing students and there is an increase in the level of comfort with PPE as the students move to their final-year of study. The comfort levels of nursing students when examining sensitive areas in patients were higher than when they examine their peers, and third-year nursing students were more comfortable with examining patients than first-year students (Wearn *et al.* (2013:884-888).

2.4.4 Peer physical examination in osteopathy

A study was conducted at the Victoria University (Melbourne, Australia) and Southern Cross University (Lismore, Australia) to ascertain whether the perceptions of osteopathy students regarding PPE correlate with those in other disciplines e.g. medicine (Vaughan & Grace 2016:online). Osteopathy students use PPE from the beginning of their training and the results of the study indicated their willingness to participate in PPE and also how important they consider PPE to be for learning the necessary skills to practice osteopathy.

The study confirms the importance of PPE for the practical skills of osteopathy students and highlighted that as in other healthcare professions, willingness to participate goes hand in hand with gender, religion and age. Female students felt self-conscious when they had to undress. Religion and the fact that a student was not Australian by birth also played a role in their perception of PPE. Students older than 20 were concerned about sexual interest for the other students and in general less likely to participate in PPE (Vaughan & Grace 2016:online). It also confirmed the results of the study of Consorti *et al.* (2013:online) that osteopathic students are less worried about PPE and regard it as part of their professional development.

2.5. RATIONALE OF USING PEER PHYSICAL EXAMINATION

The main reasons educators make use of PPE as part of the training of healthcare students are because there is a pool of students available in each class to assist in practising practical and communication skills before the students need to face a real patient and there are also no costs involved in practising on them, unlike simulated patients who need to be paid or are not readily available. As pointed out before, a simulated or standardised patient (SP) is a person who has been trained to simulate accurately the history, symptoms and physical and emotional characteristics of a patient

for the instruction, assessment or practice of healthcare students. Simulated patients can be used in simulated scenarios where students must assess the patient by either taking the history or performing a physical examination on the simulated patient (Hargraves 2012:37-38).

Braunack-Mayer (2001:683-684) discusses the ethical issues regarding the use of real patients as well as students to act as surrogate patients in clinical teaching. Physical examination always raises invasion of privacy issues. To observe the patient predominantly as learning material is unhuman.

Students are able to give immediate feedback to their peers on their performance or their lack of performance. It is always better to practice new skills on classmates before actually performing it on a patient as the students can accidentally injure the patients or cause discomfort to them when performing an examination incorrect. It can assist in teaching students empathy. When students have undergone specific examinations or procedures, it helps them to relate to the feelings and anxiety of the patients (Chen *et al.* 2011: e528-e540; Outram & Nair 2008:274; Wearn & Bhoopatkar 2006:958). Rees *et al.* (2005:599-605) add that PPE ensures that students get used to a wide range of body shapes and sizes.

Student numbers increased dramatically over the past years and the pressure to increase the numbers even more is a reality. The patients stay in hospital for shorter periods of time due to cost and staff constraints and improvement in management protocols and surgical techniques. This results in fewer patients per student to practise physical examination skills on. There is an increase in patients' rights knowledge, resulting in more patients refusing to consent to students examining them (Braunack-Mayer 2001:681-686; O'Neill *et al.* 1998:433- 437; Outram & Nair 2008:274). Clinicians have less time to teach students basic skills because of an increase in the demand for their services; this requires students to learn these skills away from the clinical setting but still on real people (Rees *et al.* 2009b:104).

There are also financial implications that need to be considered. The students are readily available, unlike a simulated patient that needs to be paid for their service and there is always the possibility that the simulated patients will not be available when the students have skills training (Wearn & Bhoopatkar 2006:958).

PPE is not only the result of all the changes that happened in the past few years or the financial benefit, it is also an educational choice made by the medical school because of the many advantages it has for the students such as helping them to become acquainted with communication and clinical skills before they come into contact with real patients (Rees *et al.* 2009b:104).

PPE allows students to study surface anatomy and become acquainted with the normal body landmarks before they get into contact with abnormalities. The examination techniques of the students improve because they practise the same skill multiple times. Examining a peer can be considered a safe environment where students are allowed to make mistakes without being afraid of teasing or consequences like with a real patient (Koehler *et al.* 2014:online).

One of the main objectives of nursing, medical or allied health professions training institutions is to develop compassion, empathy and respect for the dignity of a patient as a person. When participating in PPE, students can experience the feelings of absence of dignity patients have when they need to undergo some of the physical examinations. It will teach them to protect and respect the dignity of their patients (Braunack-Mayer 2001:681-686).

In a study conducted by the College of Human Medicine of the Michigan State University, Michigan United States of America (USA) (Mavis *et al.* 2002:135-140) with second-year medical students acting as standardised patients in a performance assessment of pain evaluation, it was found that the students regarded it as a worthwhile experience. The students regarded the training they received to act as a standardised patient as a “high-quality interactive learning experience.” (Mavis *et al.* 2002:135-140). This study is limited to a single group of students and only the assessment of pain, but can be broadened to include peer physical examination of fellow students.

Communication skills are of great value to healthcare students. Some undergraduate students feel very anxious when confronted with a patient they need to talk to. At the University of St Andrews in the UK, communication workshops were developed to reduce anxiety (Dennis, Warren, Neville, Laidlaw & Ozakinci 2012:330). Many of the students participating in the workshops felt these were unnecessary as anxiety will be reduced with more experience and the term “anxiety” in the anxiety workshops have a negative connotation of not coping. Participating in PPE offer students’ confidence and enhance

communication skills as they work in small groups among peers they trust and in a supportive environment.

Good communication skills are especially important for healthcare practitioners as they need to build a trust relationship with their patient in order to obtain the necessary information for a diagnosis. Communication skills do not come naturally for most people. The need for communication training is becoming more important as patients become aware of their rights. Communication skills including listening skills, acting on a person's non-verbal as well as verbal communication is something that needs to be practised as part of PPE (Ranjan, Kumari & Chakrawarty 2015:JE01, JE04).

2.6. CURRENT STATUS OF PEER PHYSICAL EXAMINATION

The position of PPE internationally, nationally and locally will be discussed in the following paragraphs.

2.6.1 Status of peer physical examination Internationally

In a letter to the editor of the Medical Teacher (2014:826-827), Kelleher and Schafer of the University of Queensland, Australia explained how the introduction of a PPE policy changed the mind-set of students and facilitators about PPE at their School of Medicine. The policy, which was drafted in 2013 and implemented since the start of the academic year in 2014, has been accepted well by both students and clinicians. The policy included topics recommended by Koehler and McMenamin (2014:431-432) such as informing students of the benefits of PPE, general information regarding PPE, the importance of written consent, how to handle problems which may arise from the use of PPE and how not to compromise students who choose to not participate in PPE.

PPE forms an integral part of the clinical skills programme of the School of Medicine of the University of Queensland, Australia and it is expected from all students to participate and act as model when practising physical skills. It is now expected from all students to sign the Peer Physical Examination Consent and Confidentiality form and adhere to the requirements of the policy and guidelines. Students who do not want to participate as a patient in peer physical examination activities discuss it with the course coordinator who handle all cases confidentially.

The introduction of the PPE policy led to productive conversations and original solutions for problems which were encountered with the use of PPE. All participants are now aware of their roles and responsibilities in the programme and the correct procedures can be taken when problems arise. Since 2002, the Faculty of Medical and Health Sciences at the University of Auckland, New Zealand uses a formal PPE policy when performing peer physical examinations (Wearn & Bhoopatkar 2014:826-827). The process at that university has local ethics committee approval, which is reviewed cyclically.

During the introductory week at the beginning of the programme the students receive written information regarding PPE and also why consent is needed. As part of the documentation, an information sheet on PPE is provided to students and they are requested to sign the consent forms. There is also an “event recording form” where any abnormalities detected are recorded. Unprofessional behaviour is managed through their fitness to practice policy (Wearn & Bhoopatkar 2014:826-827).

At the University of Auckland, New Zealand it is compulsory to examine peers, but students can choose whether they want to be examined. Verbal consent must be given before examination take place although the students gave written consent previously. The authors found that students will participate at a level where they feel comfortable. It is important to keep in mind that this university has a diverse student population that include Maori, Pacific, Central and Far-East Asian, African, Middle Eastern and North American students (Wearn & Bhoopatkar 2014:826-827).

2.6.2. Status of peer physical examination nationally

The researcher could not find any reference or article to PPE in South Africa.

2.6.3. Status of peer physical examination locally

All three schools within the Faculty of Health Sciences, UFS make use of PPE in clinical practice training. There is no guidelines or policy available at any of the schools within the faculty. The physiotherapy department in the School of Allied Health Sciences has a document that all third-year students sign at the beginning of the year (Important notice no 3 see Appendix A), but it is only applicable to the Department of Physiotherapy and it is not a policy (Personal communication 2015).

The School of Medicine has a document in place where students sign consent to undress in certain modules, in semester one of their first year (Appendix B). This document is also used by the department physiotherapy in their first year.

2.7. CLIMATE TO INCREASE STUDENT WILLINGNESS FOR PPE PARTICIPATION

In a study of McLachlan and others conducted in 2010 (Chen *et al.* 2011:e533), the willingness of students to participate in PPE and the reasons that will change their attitude towards PPE had been investigated. The study indicated that increased educator intervention, privacy measures and the composition of the group changed the attitudes of students towards PPE. Some students indicated that they were comfortable with examining their friends, while others said they would be more comfortable if it was a complete stranger. The students indicated in their written responses that 65% preferred the mixed gender groups; 71% preferred small groups of four to six students; and 83% want some kind of privacy arrangement such as a curtain (Chen *et al.* 2011:e533).

Rees (2007:805) suggests that a discussion about professionalism and ethics regarding body image, not only with PPE but also in the wider curriculum, will assist in making students more positive about PPE, especially the female students. Guidelines on appropriate behaviour and communication towards sensitive issues like body image will also contribute towards student professionalism in general. Chang and Power (2000:388) suggest that clear communication on what is expected from students (behaviour) may alter the actions of the students.

As mentioned in chapter 1, lecturers need to be educated on the importance of cultural and social sensitivity to students needs and when asking in class who will be the “patient”, and ensure that there are always alternatives available for students who do not want to participate in PPE (Braunack-Mayer 2001:685).

Reid *et al.* (2012:61) suggest that assessing the attitude of the students towards PPE at the beginning of the course in order to measure the support the students will need while participating in PPE might be a valuable tool for lecturers. The reflection of students regarding PPE and their attitudes towards it can be used as a tool to discuss PPE and provide information to the students regarding their appropriate behaviour during these sessions (Reid *et al.* 2012:61).

Power and Center (2005:337-343) mention in their study the following steps to increase student willingness to participate in PPE:

- State clearly that participating in PPE is of your own free will. If the student chooses not to participate, he/she does not need to provide a reason.
- PPE must always be restricted and not include GRB examinations.
- Students must be able to choose their own partner for PPE as most of the students are more comfortable examining a fellow student of the same gender.
- The behaviour of the lecturer or tutor is very important. The lecturers or tutors take responsibility for what is happening in class and must be careful when demonstrating on themselves or on a student of the opposite gender.
- Lecturers or tutors must ask for a volunteer when demonstrating to the group. Male students are not always willing to remove their shirt in front of the whole class.
- Accept the fact that about one in twenty students will be uncomfortable with PPE and the lecturers and tutors must allow for individual differences.
- SP's must be available for students who want to follow this route.
- Feedback from the students and lecturers are essential. Student evaluations must be returned to lecturers and tutors to make them aware of possible problems.

2.8 STUDENT CONCERNS ON PEER PHYSICAL EXAMINATION

Many of the students have ethical concerns such as whether it is acceptable to practice on their peers. Some have questions on the acceptability to practice on somebody from another gender, race or age. Ethnicity and culture also play an important role with students from some Middle Eastern countries in a multicultural class not so willing to participate in peer physical examination (Outram & Nair 2008:274). They reported that 47% of the students who participated in a study in the United Arab Emirates indicated that PPE is not appropriate to teach physical examination skills.

In a study conducted at the Flinders University and the Universities of Exeter, Plymouth, Auckland and Sydney (Gibson 2009:205-206), medical students at the start and end of their first year were asked to complete a questionnaire on their feelings and general views regarding PPE and their participation. Students said that the informal relationship between peers made it difficult to be professional during PPE. They were also concerned that they would hurt a fellow student, but still regard it a better proposition to learn on a peer than a patient.

Students also regard PPE as “artificial”, because their peers anticipate the next move in the examination while this will not be the case when examining a patient. The relationship is not as respectful and confidential as it will be in a doctor-patient relationship, which cause concern for some students. A breach in confidentiality might occur in some instances where class activities are placed onto social media (Koehler *et al.* 2014:online).

Koehler *et al.* (2014:online) mention that inappropriate behaviour of students where medical equipment is deliberately used in a way not intended to, or where there is verbal, emotional or sexual abuse of a fellow student cause concern. Supervisors must be trained in PPE in order to handle inappropriate behaviour or situations that might occur (Koehler *et al.* 2014:online).

According to the results of a survey done at the University of Minnesota, USA (Power & Center 2005:337-343) some of the students who do not want to participate in PPE at all indicated that they had a previous bad experience with either tutors or classmates or both. One student indicate that a past of childhood sexual abuse prevented him/her from participating in PPE.

2.8.1 Gender and Peer Physical Examination

Many studies show a correlation between student gender and willingness to participate in PPE. Male students are generally more comfortable to participate in PPE than female students (Rees *et al.* 2004:86-88; Reid *et al.* 2012:55), but according to a study by O'Neill *et al.* (1998:433-437) the difference between male and female willingness to participate in PPE is more prominent when the “sensitive areas” is involved.

Female students do not find it acceptable to remove their clothes due to the way they perceive their bodies. In a study conducted at the Department of Basic Medical Sciences, Faculty of Health Sciences at the UFS, South Africa (SA) it was found that acceptable slenderness and muscularity are two important aspects adolescents worry about when undressing in front of peers (Raubenheimer 2013:99). The students are still in their adolescent years and PPE requires from them to expose a body part e.g. the abdomen, which is normally a covered part of their body, in order for their peers to come and examine it by inspecting, touching and auscultating it. This causes them to feel exposed and self-conscious when they are the examination model. It is not even always

about exposing a normally covered body part. It can be something like the hands of the person as well (Rees 2007:803).

Objectified body consciousness (OBC) describes how females see their bodies. According to McKinley in Rees (2007:803), female students see their bodies in terms of how they look to others or how they experience their body. In general, females are appraised on how they look in contrast with males who are appraised by qualities like the functionality of their body. Western cultures also require from women to be thin and if a student feels she does not comply with this, there is the risk of negative self-image. Female students are more susceptible to feelings of shame when receiving critical or teasing remarks from their peers and this may explain why they are reluctant to participate in PPE (Rees 2007:803).

In the study conducted with first-year students of the University of Melbourne, Australia, researchers found that the students were more scared to be embarrassed about their bodies than that there will be problems about cultural and religious differences. Female students did say they would prefer single-gender classes when participating in PPE (Reid *et al.* 2012:61).

2.8.2 Peer Physical Examination and intimate body areas

Many studies indicated that students are willing to participate in PPE as long as the intimate body areas are not included. Already in 1998, it was one of the concerns of students in the survey conducted by O'Neill *et al.* (1998:433-437). In Western cultures, this includes areas like female breasts, genital areas of both men and women and also the rectum, anus and anal canal of females and males, and the prostate of males. Non-Western cultures might consider other areas like the ear, nose, throat and eyes intimate areas. In 1982, Metcalf and associates described this sensitive body areas as the "female breast, pelvic organs, external genitalia, rectum, anal canal and anus and the male external genitalia, inguinal region, rectum, prostate, anal canal and anus" (Chang & Power 2000:384).

In a study that involved first-year students from five countries between 2005 and 2007 (Rees, Wearn, Vnuk & Bradley 2009a:921-927), it was found that students do not want to participate in PPE of the intimate body areas because they consider it embarrassing, awkward and strange to touch the genitals of their peers and see and work with one another every day. Male students were more prone to refer to these areas as sexual

areas, but female students used words like “invasive, violated and trespass” to describe their feelings when examining of these areas were discussed. Female students felt anxious to be seen in a sexual way by their male peers. They feared sexual harassment, while male students were scared that they could be accused of abuse of their peers. Both sexes felt the need for a chaperone while female students were examined; male students as protection for themselves and female students as protection for the female examinee. In general, Muslim women refused to be examined by their peers even in the presence of a chaperone. All the findings of the said correspond with the findings of the study of O'Neill *et al.* in 1998.

Rees *et al.* (2009a:921-927) refer to the phenomenon that students from the Far-Eastern medical schools used more euphemisms to describe the intimate body areas than the rest of the students. This can be the result of them trying to be polite to the researcher, avoid offending him, or it might be due to the cultural differences in communication between Far-Eastern and Australasian and UK students.

First-year students of the University of Melbourne, Australia use limited PPE of non-sensitive body areas as part of their clinical skills course. These classes are facilitated by a tutor and includes students of both sexes. As part of a study that was conducted involving these students, they had to complete an anonymous survey about PPE before they had any involvement in PPE. Questions were related to the attitude of the students about PPE and also their willingness to participate. The willingness questionnaire included 15 areas across the body (sensitive and non-sensitive zones) to assess the attitude of students regarding participation in PPE of these regions (Reid *et al.* 2012:56).

The results indicated that students of both sexes were equally willing to participate in the examination of non-sensitive areas like hands and feet, while in areas like the external genitals willingness to participate was low. Male students were more willing to let female students examine their genitals than to have them examined by fellow male students. Students were also more willing to examine their peers than to be the one who is being examined by the rest. Areas like the genitals and even ears and eyes were considered better to be the examinee by the students than being the focus of examination. (Reid *et al.* 2012:56). What was interesting in this study was that female participants were equally willing to be examined by a female peer when it comes to the examination of the head, neck, arms, shoulders and breasts, but did not want to participate as an examinee when male students were involved (Reid *et al.* 2012:56).

2.8.3. Ethics and peer physical examination

In an article by Braunack-Mayer (2001:681-686) some ethical issues regarding PPE were discussed. For many years, PPE had been conducted in medical schools without anybody asking questions. In recent years with all the emphasis on patients' rights and general human rights, it is essential that PPE should be under the magnifying glass. As seen in the paragraphs prior to this, students have many concerns when participating in PPE - but what about ethical issues? Ethical issues can arise easily in heterogeneous groups but even homogeneous groups or situations can give rise to ethical problems.

There are a few questions that need to be answered when dealing with ethical issues; namely, what will happen if a student diagnoses a condition or illness in a fellow student? The fact that they know each other very well have an impact on their feelings of unsettlement with a situation like this. Outram and Nair (2008:274) raise the question of what the duty of care is of the student and educator present when an abnormality is discovered in a fellow student. The reported incidence of such events is low, approximately a rate of 1.5% per year, but a protocol or guidelines should be present. The medical school of the University of Auckland, New Zealand has a standardised protocol with a reporting form which was used in four instances over two years. According to their protocol, the onus stays with the student to follow up on the possible problem (Outram & Nair 2008:274).

During recent years, there has been some pedagogical changes in the way students were trained. It changed from large lecture-style teaching to small groups and more real life cases in the clinic. This emphasises the ethical problems students are struggling with, and could assist lecturers in integrating adult learning principles into ethics education in an effective way. To recognise an ethical dilemma, a student need a certain level of ethical sensitivity and they can only achieve that if they have been introduced to ethics theory earlier. The fact that the real ethical dilemmas of students being used in class settings, resulted in the ethical scrutiny of a few previously unexamined practices in medical education including PPE (Braunack-Mayer 2001:683). A way used to explore these issues is to draw on the bioethical method of casuistry and considering the ethical issues inherent in two areas which may be considered to be parallel. Casuistry is a case-based approach to moral reasoning (Slowther, Johnston, Goodall & Hope 2004:7). It makes use of previous experience, then carry the solution over to other problems to resolve them and then reapply everything in new problem areas. Casuists measure new ethical dilemmas against rules-of-thumb which are embedded in paradigm cases and

then rely on analogic reasoning to draw comparisons between the old paradigm case and the new dilemma they have encountered (Braunack-Mayer 2001:681-686).

Students should have the freedom to say no to participate in PPE without fear of being penalised. In practice, students often do not want to participate in PPE, but because they are scared that it will jeopardise their academic progress, they participate. Medical students often fall victim to this because of the fact that the same lecturers teach at undergraduate and postgraduate level and when they specialise they come across the same people (Braunack-Mayer 2001:684).

As discussed in chapter 1 (cf. Section 1.2.3) ethical issues are very important and not easy to define. It is unfair to the patients if we do not allow students to practice on each other but then expect patients to agree that students can practice procedures and examinations on them (Braunack-Mayer 2001:685). PPE is a very good way of teaching students' basic principles like respect for patients. Students need to understand that showing respect to a patient is more than just asking the patient whether they can perform some examination or procedure on them. The students should understand that for the patient, just the fact that he is in a hospital bed is already a disempowering experience where they do not have control over what is happening to them. Sometimes the patients do not have the energy to say "no" to somebody who wants to perform examinations or tests on them (Braunack-Mayer 2001:684). Braunack-Mayer (2001:681-686) suggests that the same principles and form of consent that is used when recruiting research participants can be used for students when obtaining participants and consent for PPE.

According to Delany and Frawley (2012:33-39) there are differences between ethical issues that arise from recruiting students for research purposes and ethical issues related to PPE. The main difference is that research produces general scientific knowledge while the goals of teaching clinical skills via PPE associated is to increase student experiential knowledge and competence in practice with their future patients.

Educators must treat students with respect and provide them with the necessary information regarding the risks and benefits of participating in PPE. Included in this information session or letter should be what the PPE process involve, the reaction of students, the importance of informed consent and what it consists of (Delany & Frawley 2012:33-39). It is also important to explain to students what the difference is between PPE in the context of friendship and professional clinical relationships. The students

must also know what alternative measures there are if they choose not to participate in PPE. It is thus the ethical responsibility of the educators that make use of PPE to provide adult students with the relevant content and information regarding the risks and benefits when using PPE in order for them to make an informed decision about participating in this process. PPE also assists in the training of students to become skilled and independent practitioners (Delany & Frawley 2012:33-39).

2.8.4. Student consent and peer physical examination

Informed consent can be defined as the approval obtained from a patient, in full knowledge of the dangers involved, possible consequences and other possibilities available, to perform a specific test or procedure and is required before most procedures are performed or a patient is required to participate in research. (Appelbaum 2007:1834). According to section 7 read together with section 8 of the National Health Act, Act 61 of 2003 and also the guidelines for good practice in the health care professions (HPCSA 2008:online), informed consent is always required from a person before any procedure.

The document used for informed consent must be written in a language understood by the patient and be dated and signed by the patient and at least one witness. Signed consent should be obtained by the person performing the procedure. Included in the document are clear, rational statements that describe the procedure or test in a language understood by the consenting person. Informed consent is voluntary and the person consenting must be of a certain age, according to legislation, to consent to certain procedures (Mosby's medical dictionary 2009:online).

Delany (2008:online) describes four models of obtaining consent namely: the event model, the transparency model, the process model and the conversation model. The first is the event model. According to this model, the health professional should understand the condition of the patient and must provide opportunities for the patient to understand it. This model of Wear, as described by Delany (2008:2), is one of patient autonomy where the role of the health professional is to provide information. The patient's informed consent is of value because it is legally required.

The second model is the transparency model of Brody (Delany 2008:2). According to this model, a patient has enough information if he can participate in decision-making about his treatment. The patient needs enough information and must be encouraged to ask questions in order to make an informed decision. The health care practitioner must

thus facilitate the level of participation the patient wants. This model provides a bigger obligation on the practitioner to reveal more information to keep the patient informed and participating. The problem with this model of Brody, according to Delany, is that it does not specifically link the model to the ethical ideal of respect for patient independence.

The third model is the process model. This model of Lidz, Appelbaum and Meisel (Delany 2008:3) suggests that two conditions must be met before it can be implemented. The first is to recognise that the patient is just as much a part of the treatment team as the rest of the team members and the second is to take into account that people may have a different opinion and value on health and illness. This means that the health care practitioner must first enquire about the patients' health beliefs before start discussing the prospective procedure or intervention in order to gain informed consent. According to this model, obtaining informed consent is then a process of information sharing from both sides. This model is explicitly linked to attitudes of respect for equality and collaboration and the autonomy of the patient to co-operate and participate in decision-making.

The last model described by Delany (2008:3) is the conversation model of Katz. This model distinguishes between a patient's right to self-determination and a patient's autonomy, which is described as the capacity to exercise their right of self-determination. This distinction means that self-determination comprises two interweaved ideas, namely the external component (choice of action) and the internal component (thinking and reflecting about choices prior to action). If these two components have equal value, health professionals will have to disclose information that will enable patients to make an external choice and also tell the patients what they are thinking about in relation to their internal choices. This includes their fears, conceptions, misconceptions and hope, and the health care practitioner will be under the obligation to disclose the values and ideals that influence him/her in offering this specific treatment.

These four models of obtaining informed consent demands attention to ethical theory. Is it ethically acceptable to request students to participate in PPE without providing them with any information to make informed decisions?

Outram and Nair (2008:275) conclude that student participation in PPE must always be voluntarily. Students should perform it in groups where they choose their own partners and only for non-intimate body areas. There must be a written, clear policy or protocol regarding PPE and preferably formal consent must be obtained from the students before

engaging in PPE. Teaching staff need training on the handling of suspected medical problems of students identified during PPE.

Formal informed consent is not something that feature in many of the studies conducted in this area although formal consent for any procedure is of utmost importance in any clinical setting. In a survey done by researchers with medical students in year two and three of their training at the Auckland University, it was found that formal consent was something that both second- and third-year students valued very high. Formal informed consent would encourage educators to set an example of good professional practice. This includes sharing of information, honesty and respecting autonomy. It makes sense to obtain informed consent from all students participating in PPE as they make the connection between being the “mock patient” and the experience that a real patient will have when being examined by many students. The ethical issues around informed consent, touch, cultural differences, autonomy and exposure of patients can all be discussed and explained to students while the importance of PPE and consent are being explained to them (Wearn & Bhoopatkar 2006:957-963). Lecturers could use this as a learning opportunity.

Delaney and Frawley (2011:539), in a letter to the editor of *Academic Medicine*, pointed out that there are some differences between students participating in PPE and persons recruited to participate in research. The goal of students participating in PPE is to enhance their clinical skills and ability to practice competently, while the goal of research is to produce generalised scientific knowledge; therefore, the process of obtaining informed consent from a patient in clinical practice is more appropriate to use as the consent for research purposes. In clinical practice, the patient needs some information from the health practitioner to take an informed decision, and in the educational setting the student needs to receive some information from his lecturer to take an informed decision regarding participating in PPE. This “information” component makes the difference between the consent in clinical settings and research settings. The authors in the letter to the editor feel students need more information about the benefits and risks associated with PPE before they can take an informed decision on whether they want to participate in it or not (Delaney & Frawley 2011:539).

In his reply, David V. Power acknowledged the fact that the consent that must be obtained from students before participating in PPE is similar to the consent obtained from patients in clinical settings (Delaney & Frawley 2011:539). Power added that it is essential that there should be alternatives available for students who do not want to

participate in PPE and also that these students must be assured that they will not be penalised for not participating. This fact must be communicated to all students before they start with the module using PPE (Power 2011:539).

2.9 IMPACT OF PEER PHYSICAL EXAMINATION ON PATIENT/ STUDENT INTERACTION

Chinnah, De Bere and Collett (2011:e27-e36) conducted focus groups and a questionnaire survey on third-to fifth-year medical students of the Peninsula Medical School (PMS) in the United Kingdom, to find out what impact did the peer physical examination on one another had on their experience when examining real patients and the impact on their professionalism and clinical skills. A self-completion questionnaire was developed based on the key issues that arose from the focus groups.

The results of the survey indicated that it was a heterogeneous group of students of which the majority were white female students. This is representative of the students of the medical school. The students felt that the use of PPE had a positive impact not only in the way they perform clinical examinations on real patients, but also on their confidence levels when performing the different examinations on the patient. PPE as a pedagogic approach also makes it easier to interact professionally with patients and ensure a “seamless” transition from theory and simulation to real clinical patients. The students specifically mentioned that it was easier for them to touch and examine another person’s body even when the patient was unclothed or half-clothed. This could be the result of an early hands-on approach in teaching and learning of surface anatomy. About 75% of students indicated that PPE assisted them in developing good professional attitudes when communicating with patients. Professional attitudes according to Chinnah *et al.* (2011:e31), is the ability to win patients trust and consent, maintain patient confidentiality, the use of appropriate language to describe body structures or tests to be done according to the ability of the individual patient and to treat patients with dignity and respect. A few students said the hands-on approach is time consuming and not worthwhile to spend so much time on.

According to this study, medical students sometimes struggle with inappropriate feelings like disgust, arousal and embarrassment when performing a physical examination as it requires from the student to be intimately close to a patient. The results of the study indicated that most of the students felt the early exposure to the hands-on approaches assisted them to feel undisturbed with therapeutically touching patients’ bodies and

physically examine naked or half-naked patients without awkwardness later in their studies (Chinnah *et al.* 2011:e31).

The results of this study indicated that the third- to fifth-year medical students valued the importance of their early exposure to peer physical examination and palpation towards the development of clinical skills and good professional attitudes (Chinnah *et al.* 2011:e31).

2.10 PEER PHYSICAL EXAMINATION AS EXPERIENTIAL LEARNING METHOD

Learning can be defined as a process for obtaining or adapting one's knowledge, abilities, values, attitudes, and behaviour. Learning theories describe how this process takes place. According to UNESCO (2015:online) and Bruce, Klopper and Mellish (2011:73-103) the main learning theories include behaviourist theories e.g. classical conditioning; cognitive learning theories including Ausubel's meaningful learning theory; constructivism e.g. Piaget's view of learning; social constructivism; humanistic learning theories e.g. Maslow's needs hierarchy. Andragogic learning theories based on past experience and experiential learning theorists e.g. Kolb. Each method has differences in the way knowledge is constructed because learning is an active process that depends on the way the student think. Experiential learning is the process where students learn (construct knowledge) from real-life situations (Yardley, Teunissen & Dorman 2012:161). In the context of PPE they learn from one another while practising on each other. Experiential learning takes place in the context of the students' future career.

The experiential learning process consists of four main elements namely (Bruce *et al.* 2011:197-198):

- The experience (Concrete experience)

Lecturers teach students certain skills or techniques by means of a demonstration or lecture. The students watch and need to receive the knowledge and also the standard that is expected from them with the specific experience.

- The reflection

Reflection can be in the form of an individual or group session where the students can revisit the experience and reflect upon it. This can be structured or unstructured sessions and orally or written.

- The action (Abstract Conceptualisation)

Here the student practise the skill or technique. They learn by doing it themselves. The responsibility to practise stays with the student.

- Revisiting the experience (Active)

The student must try out the gained knowledge in different situations.

These four steps can be applied to PPE as a method for experiential learning as illustrated in Figure 2.2.

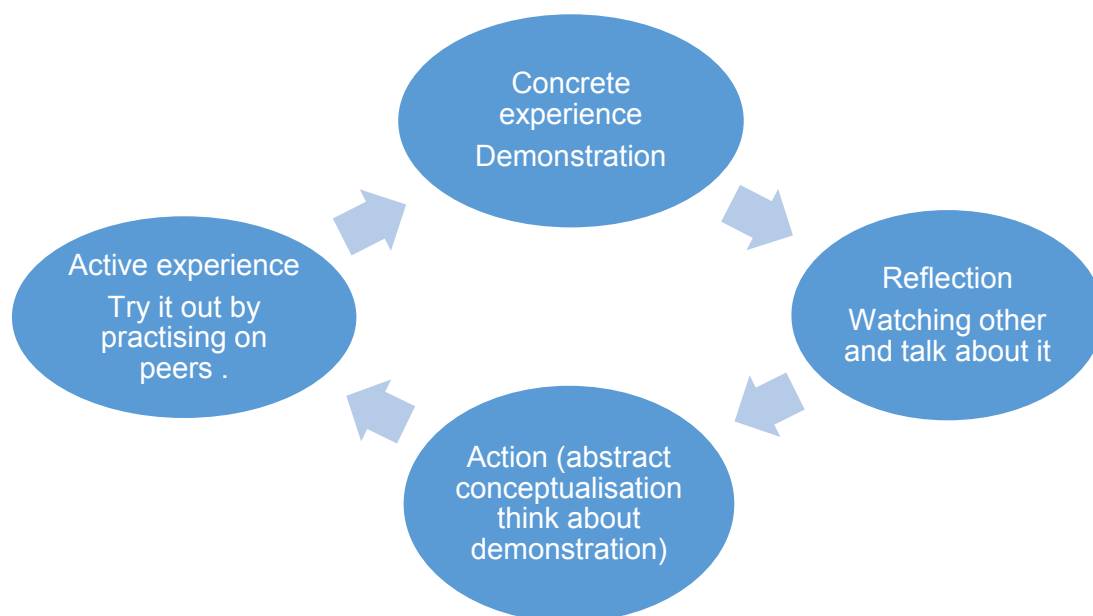


FIGURE 2.2: KOLB LEARNING CYCLE OF EXPERIENTIAL LEARNING APPLIED TO PPE
[Adapted by the researcher, Hattingh 2016]

Kolb (in Bruce *et al.* 2011:197-198) points out that students move through a cycle of immediate experiences, which leads to clarifications and reflections of the phenomenon and are then linked with earlier knowledge and interpreted into abstract concepts or theories. Students must link the previous knowledge to the new knowledge. They must be able to identify what is different than their previous knowledge and why is it different. This results in new ways and actions to adjust to the experience that can then be tested. The main condition for learning is participation and experiential learning is a good way of involving all students.

2.11 PPE POLICY DEVELOPMENT AND CONTENT

A policy is an official document that provides guidance to personnel regarding their conduct in situations pertaining to the specific policy. It prevents bias and ensures consistency in the treatment of others; it also increases accountability and responsibility in all participants as well as increase decision-making (Bezuidenhout 2015:49-50; Isaacs n.d.:online). A policy can provide legal protection to the institution, the employees and

the users of the facility and also ensures unanimous decision-making from all role-players in the institution. A policy will prevent small or temporary complications from becoming a permanent problem and assist in finding and implementing solutions (Bezuidenhout 2015:49-51).

A policy can reveal the objective of the institution and will boost confidence in role-players, as once written, everybody will be able to access the same policy and misunderstandings and misinterpretation will be effectively ruled out (Bezuidenhout 2015:52).

2.11.1 The content of a peer physical examination policy

The use of PPE is widely accepted at medical schools everywhere in the world and although students generally feel positive about participation, there are some who would rather prefer not to participate - but for reasons such as fear of victimisation they keep on participating. There are various concerns from students' side regarding the use of PPE, and to address all these concerns, it is advisable for universities to have a clear policy on PPE. In this policy, issues like students who do not want to participate in PPE, general information like clothes to be worn, consent for PPE and procedures to follow should an incident regarding PPE occur (Koehler & McMenamin 2014:431) were addressed. The policy must include topics like privacy settings, the availability of educators/ tutors to supervise the PPE and inclusion or not of intimate body areas (O'Neill *et al.* 1998:433- 437).

Koehler and McMenamin (2014:431-432) did a survey to find out how many Australian medical schools make use of PPE and if they had a policy in place. They found that not one of the eighteen Australian medical schools had a clear written policy in place. They suggest the following components to be included in such a policy: the benefits of engaging in PPE; potential problems which may arise and the procedure to follow; general information regarding PPE; a written consent form that needs to be signed by the student; and lastly, that should students decide not to participate, it will not be held against them.

Vaughan and Grace (2016:online) did not find clear guidelines regarding the use of PPE in Australia. According to literature, guidelines should include obtaining of informed consent from students before participating in PPE (Braunack-Mayer 2001:681-686), allowing students to choose their practising partner and making alternatives to PPE

available should a student choose not to participate. It is important that students need to know what they will do in practical classes to obtain informed consent (Outram & Nair 2008:274-276; Rees 2007:801-807). Ethical, cultural and professional issues e.g. religion, age etc. must be discussed before engaging in PPE.

Certain concerns like confidentiality and what procedure to follow should there be an abnormal finding must be explained to the students prior to PPE. The policy must clearly indicate the purpose of PPE, namely that it is an educational tool to enhance clinical examination skills. In the policy, it should be indicated how the student who choose not to participate in PPE (for what reason) will be accommodated to prevent compromising their learning activities (Wearn & Bhoopatkar 2006:957-963).

Outram and Nair (2008:275) indicate that a PPE policy must explicitly state that PPE participation is voluntarily and preferably the skill must be taught in a small group setting to enable students to choose their own partners. Written formal consent is not a necessity, although it may be considered best practice (Outran and Nair 2008:275). The protocol or policy must include steps to follow in case of an abnormal diagnosis on one of the students. Professional behaviour of both students and educators are very important and confidentiality must be retained (Outram & Nair 2008:275).

2.12 CONCLUSION

In this chapter, the perspectives of research participants regarding the use of PPE as well as the importance of a PPE policy or guidelines at the institution where it is in use, were discussed. PPE as experiential learning method were conceptualised and explained.

In the following chapter entitled Chapter 3, ***Research Design and Methodology***, the research design and methodology regarding qualitative research and focus groups will be discussed in detail.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In this chapter, the research design and research methodology used in the study will be discussed. In the first place, theoretical perspectives on the research design will be discussed, followed by a detailed clarification of the process of the focus group technique including sample selection, exploratory interview and data analysis.

3.2 THEORETICAL PERSPECTIVES ON THE RESEARCH DESIGN

3.2.1 Theory building

Qualitative and quantitative research offer valid, logical, generally acceptable ways to form and investigate theories. This is done by following inductive and deductive reasoning. Inductive reasoning, which is generally associated with qualitative research, commences with a problem or idea followed by the investigation of the problem or idea, and lastly reaching a theoretical understanding of it as a consequence of the investigation. Therefore, the inductive reasoning process can be described as developing from a set of specific ideas to a general assumption. The end result of the process of induction is a theory and most of the time, the process is transparent and reliable and may be relevant to individuals, circumstances and facts (Nicholls 2009a:531-532).

Deductive reasoning begins with a testable hypothesis that predicts an outcome from where the researcher undertakes an extensive examination until the theory has been fully examined and tested. Deductive reasoning uses a huge volume of data which is collected before any significant data analysis commenced. Analysis usually begins with a lot of data that examines the key components of the hypothesis and closes with a small specific outcome. This represents the route of most quantitative studies that follow a controlled, experimental method with the outcomes generalised to the population because it describes the original model that was being tested (Nicholls 2009a:531-532).

The researcher made use of a qualitative research approach. Qualitative research allows researchers to study shared social concerns that are not attainable with

quantitative methods. Creswell (in Isaacs 2014:318) describes qualitative research as follows: “Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyses words, reports detailed views of informants, and conducts the study in a natural setting.”

According to Creswell (2014:64-65), the theoretical background that contextualises and validates the research study within the qualitative research approach can be derived from a general clarification for behaviour and attitudes. The viewpoint influences the research problem; and the way data is collected and analysed and an anticipated outcome of the study as it contributes to perspectives about the researched problem through emerging patterns, theories or generalisations and matched with personal experience and with existing literature available on the topic.

3.2.2 Strategy of inquiry and research approach

The research design includes all the steps to reach the outcomes (aims) of the study, it is the plan of what the researcher wants to achieve and how it will be achieved (de Vos *et al.* 2011:143). The research design includes the beneficiaries of the research and must include ethical considerations to validate the research. The ethical requirements that needs to be addressed is defined in the Declaration of Helsinki, which clearly states that “all research involving people must conform to generally accepted scientific principles and based on a thorough knowledge of the scientific literature or other sources of information” (Botma *et al.* 2010:5-6).

To establish the relevance and validity of the research problem, it is essential to contextualise the research problem. The absence of a policy on peer physical examination which could be used by different departments within the Schools of Medicine, Nursing and Allied Health within the Faculty of Health Sciences at the UFS, was identified and was contextualised by undertaking an extensive literature review on the topic. The contextualising of the problems associated with peer physical examination from the literature led to two questions. The questions that came to mind are “What are the experiences of people regarding PPE?” and “What do they think should be included in a policy on PPE?”

It was reasoned that the best people to answer this questions would be the people experiencing this phenomenon, resulting in a qualitative research strategy.

According to Creswell in Botma *et al.* (2010:189), the design of a study is usually qualitative, quantitative or a mixed-method design and depending on the type of research approach the research strategy is chosen. Research strategy, also called research plan or research methodology, connects the researcher with a specific method for collecting and analysing empirical data e.g. interviews, focus groups, etc. Focus group interviews were selected as the most appropriate way of collecting the required information in this study.

The qualitative researcher wants to understand rather than explain. In qualitative research, the researcher does not know what is known or knows what is not known. The qualitative method is used where there is little known about the topic or it is not quantifiable (Botma *et al.* 2010:182). Qualitative research suggests different ways of understanding the intricacy of health care, innovative ways for collecting and analysing data, and new terminology to voice opinions about the quality of the care offered. As a result of the new understanding of the health care system and the concepts of health and wellness, researchers have come to appreciate the benefits of qualitative research (Nicholls 2009a:526-527).

Examples of qualitative research include conceptual studies (mainly based on secondary sources; critically engage with the understanding of concepts with the intentions to add to the existing body of knowledge), historical research (organised method of describing; analysing and interpreting the past based on information from designated sources as they relate to the study topic), case study research (methodical inquest into an event or a set of related events with the aim to describe the phenomenon of concern) etc. (Nieuwenhuis 2012a:70-75). In this study, the case study approach is used as the identified problem (peer physical examination) is an actual problem experienced by the researcher and colleagues of all three Schools in the Faculty of Health Sciences.

According to Botma *et al.* (2010:191), the case study is defined as an inquiry approach in which the incident is at the centre of attention and the researcher explores in depth a program, activity, process, event or one or more persons. Case study qualitative research is valuable for the study of an occurrence in its normal environment (Houghton, Casey, Shaw, & Murphy 2013:12). Analysis is often focused on a system of action rather than an individual, but it can also be selective, focusing on one or two topics that are imperative in the understanding of the system being examined. A crucial point of the case study method is the use of multiple sources and techniques in the data gathering process. The researcher decides beforehand what evidence to gather and what techniques to use with the data gathering and analysis to answer the research question.

Data gathered is mainly qualitative but can also include quantitative data. Data collection tools include surveys, focus groups, interviews, documentation review, observation and the collection of physical artefacts (Nieuwenhuis 2012a:75-76).

3.2.3 The research design

The research design is the method of data collection and for this study focus group, interviews were used. An interview is a conversation between two people where the interviewer asks questions with the purpose to collect data. The goal of the qualitative researcher is to understand how the participant constructs social reality and knowledge. There are different types of interviews, namely group interviews, open-ended-, semi-structured and structured interviews. For this study, focus group interviews were used as data collection method.

A focus group is a semi-structured group interview that is focused on a specific collective activity of all participants and the discussion is determined by the researcher. The structure of the focus group depends on the question that needs to be answered as well as the facilitator's facilitating style. The participants voice their opinion on the questions asked and by listening to what they say, the researcher gets a better understanding of the problem or issue investigated. The focus is on the participants' perceptions regarding the phenomena currently being studied (Botma *et al.* 2010:210-213). Focus group interviews make use of the interaction between participants as part of the method. Participants are encouraged to talk to each other and discuss the comments of another person in the group or ask questions in order to clarify the opinion of a participant (Kitzinger 1995:299). According to Wilkinson (in McLafferty 2004:187-193) focus groups endeavour to extract the understanding, beliefs, attitudes, experiences and knowledge about a specific phenomenon from the participants in the study. It attempts to understand individual opinions, beliefs and experiences as participants are willing to share it publicly.

Participants were selected who have common characteristics or experiences regarding the topic under investigation. The aim of the study determines the number of focus groups and can be from one to more than fifty, however, if not enough groups are conducted, some information might be missed. The comprehensive descriptions of the data are just as important as the amount of data. Three focus groups were conducted in this study. A set of pre-determined open-ended questions grounded in literature was used. In examples from literature usually fewer than ten questions spaced from general to more specific are used (Botma *et al.* 2010:210-213). Two questions were used in this

study. The collected data offer information that will enable the researcher to understand the intricacies of the topic without any *a priori* assumptions that may limit the investigation (Jansen 2012:9).

3.3 RESEARCH METHODS AND METHODOLOGY

The methods that were used in this study is a literature review and focus group interviews. In this section, information on the sampling, data collection and data analysis, ethical consideration and validity and reliability of the study will be discussed.

According to Hammell, as quoted by Nicholls (2009b:586), a methodology can be defined as “a specific philosophical and ethical approach to developing knowledge; a theory of how research should, or ought to proceed given the nature of the issue it seeks to address”, but even this definition can be unclear because the borders between philosophy, methodology and methods are vague and there is inconsistency in the published literature on the use of these terms.

This study was conducted from a grounded theory perspective. Grounded theory concentrates on the way interactions between people create meaning and ethnography on culture; mainly the things that define us as being part of a particular cultural group; for example shared values and interests. Ethnography is not only about ethnicity. There are many cultures in health care; some are generated by a specific diagnosis and others by the natural interaction between people sharing the same experience (Nicholls 2009b:588).

3.3.1 Literature review

Research is undertaken within an existing knowledge base and therefore it is necessary to prove that the researcher had critically reviewed the existing literature. The literature review should provide a conceptual and contextual framework for the research and must reflect research done by recognised researchers. If possible, mostly primary sources must be used while compiling the literature review (Botma *et al.* 2010:63-65).

According to Grinnell and Unrau in de Vos *et al.* (2011:109) and Creswell (2014:27-28) there are four reasons why a literature review is important:

- To convince reviewers that the researcher understands the present concerns associated with the topic and clarify the knowledge problem in the study area

- To show the similarities and differences of the current study in comparison to previous studies
- To indicate where and how the current study fits into the existing knowledge on the topic
- To familiarise and conceptualise the variables that will be used through the study.

The literature review brought a clearer understanding of the identified problem and positions the current study in perspective according to the existing knowledge on PPE and the research that has been done on the topic.

The electronic databases used to search for information were search engines used by the University of the Free State such as ERIC, Health Source: Nursing/ Academic edition, MEDLINE and Google scholar. Initially searches were limited to publications between 2008 and 2016, but then earlier articles were also included. However, the main focus stayed on articles between 2000 and 2016.

Peer physical examination (PPE) in relation to medical students, allied health professions students and nursing students were included in the search for information. The researcher also obtained additional sources from the reference lists in relevant articles.

3.3.2 Focus group interview

The researcher used focus group interviews to collect data from students and lecturers directly involved or teaching peer physical examination to obtain their attitudes and experiences regarding the use of PPE at the FoHS, UFS and what their opinions are on what should be included in a PPE policy.

3.3.2.1 Theoretical aspects

The history of focus groups goes back to the 1920's when researchers in social psychology used a group interview to gather some information (Wilkinson 2004:177). Today, the use of focus groups as data gathering method is widely accepted across all academic settings. Focus groups can be defined as a "research technique that collects data through group interaction on a topic determined by the researcher" (Chioncel, Van Der Veen, Wildemeersch & Jarvis 2010:495-517).

The reason focus group interviews were decided on as suitable data gathering method is the following:

- The group dynamics in the interaction between the group members may enhance the depth of the discussions beyond what could be obtained from individual interviews (Hyde, Howlett, Brady & Drennan 2005:2589).
- Providing the students and lecturers the opportunity to voice their opinion on PPE could provide additional data that could either be confirmed or contradicted by the available literature (Hyde *et al.* 2005:2594).
- The target population namely the students and lecturers of the faculty of Health Sciences at the UFS, has appropriate experience regarding PPE to contribute valuable information to the study.

An interview guide with pre-determined questions which are grounded by the literature review was used. The questions were broad and asked in a non-directive way. Participants could answer the questions focusing on any part of the question. The interview guide is included in Appendix C. According to Botma *et al* (2010:212), the duration of the focus group must not exceed one and a half hour but according to Kitzinger (1995:300), focus group sessions may last up to two hours or a whole afternoon or even more than one session with the same group.

3.3.2.2 *The focus group interviews in this study*

Two focus groups were initially planned and conducted, one with students from the three schools within the FoHS (UFS) and one with lecturers from all three schools. A third focus group was decided on because the first student group comprised mainly out of Afrikaans-speaking students (eight of the eleven students), which could affect the trustworthiness of the study. The groups were facilitated by experienced and independent facilitators from the Central University of Technology, Free State, who directed the discussions while the researcher acted as co-facilitator that arranged all logistics and took field notes. An independent observer was also present to take field notes, including the body language of participants, the atmosphere in which the focus group took place, group dynamics and personal interpretations of the discussion as it continued.

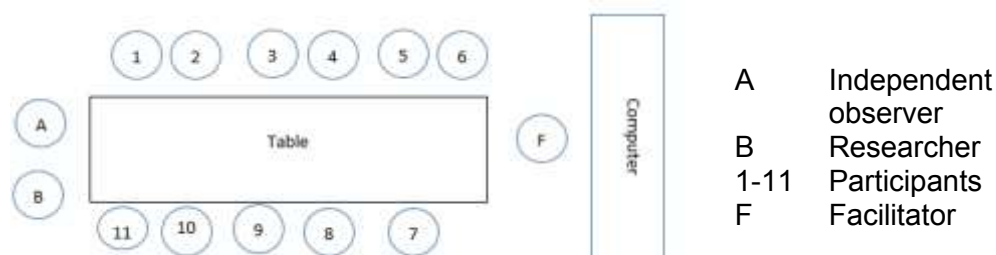
The number of participants in focus groups are usually between four and twelve (Tong, Sainsbury & Craig 2007:349-357), with the ideal group size between four to eight people (Kitzinger 1995:300). The first focus group with students comprised eleven participants

from five disciplines and lasted 47 minutes and the one with the lecturers comprised seven participants from five disciplines and lasted 53 minutes. The second student focus group had 8 participants from three different disciplines and lasted 62 minutes. The specific length of time of each focus group is in accordance with the audio recordings of the different focus groups. Participants (students and lectures of the FoHS, UFS) were chosen because they participated in PPE during their course and the lecturers are involved in a module where PPE is being used as teaching tool. Three separate focus groups were conducted. All participants received an invitation letter to participate in the focus group in which the aim of the study was explained. The lecturers received their invitation via e-mail and follow-up telephone calls to remind them of the focus group interview. The students received their invitations from the respective class representatives of the Afrikaans and English third-year medical classes. Arrangements on the date, time and venue of the focus groups were communicated to the participants via e-mail and cell phone messages. Separate focus groups were conducted for lecturers and students to prevent inhibition of responses from the students because of the presence of the lecturers (Kitzinger 1995:300). Three focus groups were sufficient for the purpose of data saturation.

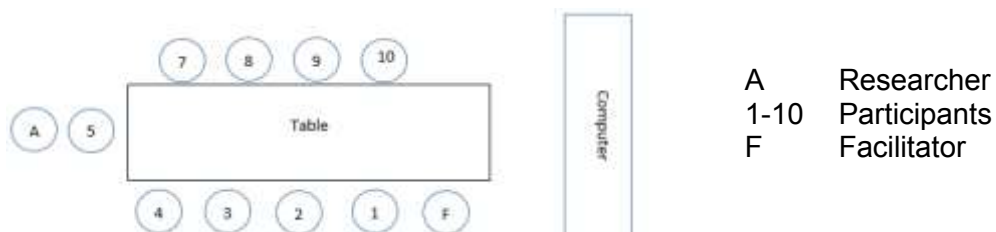
The facilitator must ensure that the interview guide will be followed as well as keep all participants enthusiastic and interested in the topic discussed (Botma *et al* 2010:212-213; Kitzinger 1995:300; Wilkinson 2004:177). The facilitators were acquainted with the interview guide as the researcher and facilitators had a meeting before the focus group interviews. They also received a copy of the protocol of the study to provide background and understanding of PPE and the requirements that need to be included in a guideline on PPE. A welcome, friendly atmosphere was created to ensure that the participants feel at ease. Participants received a short introduction on the purpose of the study and were assured that there is no right or wrong answer and that all contributions are valued. All participants signed consent (Informed consent document Appendix D) to participate in the study and thereafter the data were collected. All the groups were conducted in English.

There was constant communication between the facilitator and participants and among the participants themselves in order to understand each other's view. Participants might be willing to share more information on their feelings and experiences when they recognise the other participants to be like themselves. The remarks of the participants constitute the crucial data of the research (Botma *et al* 2010:212-213).

Seating arrangement Focus group one:



Seating arrangement Focus group two:



Seating arrangement Focus group three.

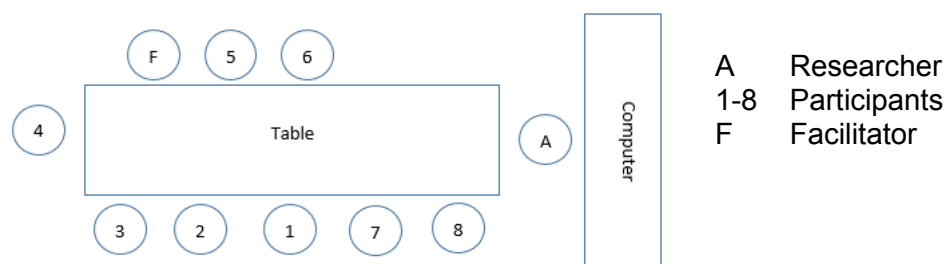


FIGURE 3.1: SEATING ARRANGEMENTS OF FOCUS GROUP INTERVIEWS.

[Compiled by the researcher, Hattingh 2016]

3.3.2.3 *The focus group interview guide*

The interview guide was developed and used for both the students and lecturers. The same two questions were used in both student focus groups for comparison of responses and standardisation purposes. The questions posed to the groups were:

- What are the attitudes and experiences of students regarding the use of PPE at the FoHS, UFS?
- What should the content of a PPE policy according to the participants of the study be?

Question two were kept the same for both lecturers and students, but the first question was slightly altered to suit the lecturers better, namely:

- What are the attitudes and perceptions of lecturers regarding PPE at the FoHS, UFS?

No changes or deviations to the interview guide were made during the data gathering focus group interviews.

3.3.2.4 Sample selection

The sample population is the lecturers of all three schools within the Faculty of Health Sciences that are involved in teaching and learning skills in the different departments of the three schools and also the students of the three schools in the Faculty of Health Sciences that participated in PPE currently or previously. Purposive sampling was used. This method is used when the researcher purposefully selects participants who have experience regarding the phenomenon being explored (Maree & Pietersen 2012:178).

The groups were all heterogeneous as lecturers and students from the Schools of Medicine, Nursing and Allied Health were invited via e-mail or personally to participate in the focus group interview with the only shared commodity being the fact that all of them was or still are participants in a module that use PPE as teaching and learning tool. Seven lecturers from the three different schools (five disciplines) within the FoHS responded and participated in the focus group for lecturers. The first student focus group was organised by the class representative of the third-year Afrikaans medical class and eleven students of five professions, namely medicine, nursing, optometry, physiotherapy and occupational therapy participated. The second student focus group was organised by a class representative of the third-year English medical class with the assistance of the researcher and comprised eight students of three professions. The representatives of two of the disciplines (optometry and occupational therapy) could not attend the second focus group.

3.3.2.5 Target population

The target population for this study was all the lecturers of the three different Schools within the FoHS, UFS that assist students with practical skills where the students practise on one another and the students of the three schools who participated in PPE within the previous year.

3.3.2.6 *Sample size*

The researcher requested the class representatives of the Afrikaans and English third-year medical classes to assist with arranging participants for the student focus groups. The third-year medical students are the group that is currently busy or just finished with their skills teaching where they applied PPE. The other disciplines start with PPE from the first year. The lecturers that are involved in a module that use PPE as educational tool were contacted via e-mail and cell phone messages. The researcher contacted the respective programme coordinators of the different Schools within the FoHS to obtain the names of lecturers involved in practical classes where PPE is used.

An information document with an explanation of the purpose of the study was handed out or e-mailed to all prospective participants (Appendix E). Information regarding the date, time and venue of the study was communicated via e-mail and messaging.

The first student focus group had eleven participants, the second student focus group had eight participants and the focus group for the lecturers comprised of seven participants. All focus groups consisted of representatives of all three schools within the Faculty of Health Sciences, UFS.

3.3.2.7 *Exploratory interview*

The researcher conducted an exploratory interview with two participants to sort out all discrepancies with the interview guide and procedure and adjustments were made. The exploratory interview is also important in estimating the time frame of the focus group and the costs involved. It also assists in ironing out any other problems that may arise. This interview was conducted in November 2015 and transcribed by the researcher. The data generated from the exploratory interview is not included.

3.3.2.8 *Data gathering*

An independent facilitator from the Central University of Technology, Free State was appointed to conduct the focus group interviews. The same facilitator had been used for the first two focus group interviews. This facilitator was not available for the last focus group, but another independent, experienced facilitator from the Central University of Technology was used instead. Both facilitators are friendly, skilled lecturers with

previous experience of facilitating focus groups. The facilitators were not known to the participants.

The researcher and facilitators discussed the interview guide during a meeting prior to the focus group interviews and the facilitators also had a copy of the protocol of the study to use as reference guide on PPE.

All focus group interviews were conducted in the debriefing room of the Simulation and Skills Unit of the School of Medicine in the Francois Retief building, UFS. The venue is suitable for small group discussions and all activities were captured on CCTV, which assisted when transcribing the focus groups. All groups were voice recorded using two Dictaphones which were placed separately on the table and also the recording system on the cell phone of the researcher was used for a backup in case technical problems occur during the interview. This helped when transcribing the data because some information was inaudible on the Dictaphones and then the cell phone was of great assistance and *vice versa*. All voice and video recording of the focus group interviews were downloaded on both the researcher's computer at the UFS and personal laptop. Both these computers are password protected to ensure the safe keeping of the data.

During the first focus group, the researcher and independent observer sat on the wrong side of the room with the participants that could look at them for assistance or approval. The researcher also did not put out numbers for each participant, but luckily the video recording could assist with who were talking and when. From the second group onwards, the researcher and independent observer sat where the participants had their back to them and easy readable metal numbers were placed in front of them. The independent observer captured key points of the discussion and also wrote down all non-verbal interaction and group dynamics between participants. Data saturation was reached after the third interview. It was not necessary to do follow-up interviews with the participants of the study.

3.3.2.9 Data analysis

The researcher transcribed and analysed the data herself. Preliminary themes and concepts were identified while transcribing the data. The different themes were the result of either the focus group interviews or the literature review which lead to the research questions.

It is important when analysing qualitative data that a process must be used. In this study, the following process was followed:

- Understanding the data - read through the focus group interview after transcribing it
- Creating themes and concepts from the transcribed data
- Hypothesising - theorising where the identified themes and concepts fit in
- Re - contextualising the analysed data (Botma *et al.* 2010:221).

Creswell (in Botma *et al.* 2010:224-225) describes qualitative data analysis as follows: "The first step will be to categorise and prepare the data for analysing by transcribing the interviews and putting in field notes. The second step is to obtain a general sense of the data by reading through all the data and adding notes in the margin". As the researcher did the transcribing herself, she had a feeling for the data from the beginning. This helped greatly in the third stage when coding begins. Krueger in Rabiee (2004:657) describes the process as a continuum, starting by collecting the raw data, making descriptive statements and then interpreting the data. It is important to remember that one step may overlap with another and the process is not necessarily linear.

During the third step, the coding and categorising began. The researcher read the complete transcripts three times and then wrote short concepts in the margin. Categories or codes were identified with the research questions in mind and evidence from other participants were looked at to support or reject these identified concepts. In the beginning, the researcher did not make use of *a priori* codes, but only focused on the view of the participants. Every new concept was included when coding and themes were identified where the different codes fit in (Creswell 2013:182-193). All coding was done by the researcher without the assistance of a computer.

The views of the participants of each focus group were considered on its own and then compared to those of the other groups to find similar categories and to ensure that all codes are accounted for. Categories or themes that did not emerge in all focus groups were included on their own.

Lastly the information (themes) identified were compared to those in the literature to see what new information emerged from the focus groups and what was mentioned according to the literature review by students from other institutions of higher education. The supervisor confirmed the identified themes and categories as discussed by the researcher. This contributed to the triangulation of the results.

3.3.2.10 Data interpretation

The researcher used inductive reasoning to interpret the information and list the perspectives of the participants regarding PPE and what should be included in a PPE policy. Theoretical perspectives from the literature study were also taken into account to answer the research questions.

3.4 TRUSTWORTHINESS: CREDIBILITY, DEPENDABILITY, CONFIRMABILITY AND TRANSFERABILITY

Reliability in qualitative research indicates that the approach of the researcher is constant through different researchers and projects.

3.4.1 Credibility

Credibility or truth value asks of the researcher to report the views of the participants accurately. The credibility of the study was ensured by verbatim transcribing of the focus group interviews and asking the supervisor, facilitator and participants to confirm the correctness of the transcriptions. Some participants answered via e-mail, others cell phone messages and some did not react at all.

Triangulation comprises substantiating evidence from different sources or viewpoints (Creswell 2013:251). It was obtained in this research study by asking the supervisor to verify the coding of the data and also by taking the final transcript of the data back to the participants (member checking). A detailed description of the setting and several viewpoints of a theme were provided by the researcher in a rich and thick description. This created an opportunity for self-reflection and clarified any possible bias the researcher could have (Botma *et al.* 2010:231-232). Extracts from the focus-group participants were included in the discussion of the results to provide evidence of the truthful reporting of results.

3.4.2 Dependability

To guarantee the consistency of the study, mistakes while gathering data, conceptualising the ideas and interpreting and reporting the results must be avoided. Dependability in this study was ensured by using the same venue (debriefing room at

the Simulation and Skills Unit of the School of Medicine, UFS) for all focus groups with the same facilitator for the first two focus groups and the same research questions.

The focus groups were all video recorded as well as recorded with two Dictaphones and a cell phone to ensure easy transcript of the data.

3.4.3 Confirmability

Confirmability refers to how transparent the process was. Confirmability was achieved by including a detailed description of the participants, the process of collecting the data, and also the interpreting and reporting of the data. Triangulation is a way of ensuring transparency of the research process and this was achieved by asking the supervisor to confirm identified themes and participants to read through the transcripts to make sure it was transcribed correctly (cf. Section 3.3.2.9).

3.4.4 Transferability

Applicability or transferability was ensured by describing the participants and the research method as well as data analysis process in order for other researchers to conduct similar research (Botma *et al.* 2010:234).

3.5 ETHICAL CONSIDERATION

The principles of respect for people, justice and beneficence were applicable during the process of data collection.

3.5.1 Approval

Approval for the research project was obtained from the Health Sciences Research Ethics Committee (HSREC) University of the Free State, the Dean of the Faculty of Health Sciences at the University of the Free State as well as the Vice-Rector, Research at the University of the Free State.

Final approval was obtained on 11 November 2015 with approval number ECUFS 188/2015. The approval number was used on the relevant documents.

3.5.2 Informed consent

Obtaining informed consent from the participants was an imperative ethical consideration in this study. The participants were provided with a short overview of the study where the purpose of the study was explained. The benefit from the study, the time the researcher will require from the participant to conduct the focus group, how data will be protected and stored and how confidentiality will be maintained were explained to the participants. Participants were assured that participation is voluntarily and they could withdraw at any stage during the research without any retribution. Consent was implied when the person agreed to the focus group, but a signed consent form increased the principle of justice that ensured everybody was treated fairly (Botma *et al.* 2010:15-17). The information and consent documents were available only in English as that was the language used during the focus group interviews. There were no requests from participants to translate it to Afrikaans or any other language (Appendices D and E).

3.5.3 Right to privacy and confidentiality

Respect for participants was demonstrated by maintaining confidentiality. This means that the information shared by the participant was dealt with in such a way that personal information is not shared with persons outside the study without the consent of the participant. Anonymity could not be achieved as face-to-face interviews were conducted. Anonymity means that even the researcher does not know which response belong to which participant (Botma *et al.* 2010:17).

Fairness means that all people must be treated fairly. The researcher followed the protocol and information shared with participants. Participants knew in advance where they can lodge a complaint if they felt they were treated unfairly (Botma *et al.* 2010:19-20). This was explained to participants by the facilitator.

All information was treated in a confidential and professional way to ensure the right to privacy of the participants. Number coding was used to protect the privacy of the responses of the participants with their names or personal particulars not appearing on any of the transcripts or data sheets that were issued for statistical analysis. All computers with data on are password protected and only accessible by the researcher.

3.5.4 Minimising potential misinterpretation of results

Focus groups were transcribed verbatim and transcripts made available to participants to confirm what was said. High ethical standards were followed as well as the procedures set out in the protocol of the study. This together with effective and experienced supervision minimised the potential to misinterpret the results of the study.

3.6 CONCLUSION

In this chapter, the research design, methodology and methods were explained. Theoretical perspectives on the research design and methodology used in the study were presented and described as well as a discussion on the trustworthiness and ethical considerations of the study.

In Chapter 4, entitled **Results of the findings of the focus group interviews**, the results and findings of the focus group interviews will be presented. The contextual setting of the focus groups will be discussed including the demographic profile of the researcher and participants. This will be followed by a thematic presentation of qualitative data in the form of relevant responses of participants in support of themes and categories.

CHAPTER 4

RESULTS OF THE FINDINGS OF THE FOCUS-GROUP INTERVIEWS

4.1. INTRODUCTION

In this chapter, the researcher will present the results of the focus group interviews that were conducted (cf. Chapter 3). The demographic profile and setting of the focus groups will be discussed as well as a thematic discussion of the responses of the participants.

4.2. SETTING OF THE FOCUS-GROUP INTERVIEWS

Three focus -groups were conducted between April 2016 and August 2016 to collect data for this study. Two of the focus group interviews were with students of all three schools (Schools of Medicine, Nursing and Allied Health) within the Faculty of Health Sciences and one focus group with lecturers of the three schools within the Faculty. All participants were from the University of the Free State and either participated in a module where PPE is used or lectured a module where PPE is used as teaching method. The first two focus groups had the same facilitator and all three groups were held at the same venue (debriefing room of the Simulation and Skills Unit of the School of Medicine). All participants received the same question with a slight difference for the lecturers as their question was: *“What is the attitudes and perceptions of lecturers regarding PPE at the FoHS UFS?”* while students had to answer: *“What are the attitudes and experiences of students regarding the use of PPE at the FoHS, UFS?”* (cf. Section 3.3.2.3). The second question was the same for all participants, namely: *“What should the content of a PPE policy be?”* (cf. Section 3.3.2.3).

4.2.1 Demographic profile of the focus-group participants

All participants signed consent to participate in this study. The gender, ethnic orientation, language of instruction (English or Afrikaans) and difference in choice of profession of the participants were recorded, but was not the main purpose of this study. The experiences and attitudes of participants regarding the use of PPE are the main focuspoint of the study.

4.2.1.1 Gender distribution of participants

The composition of the student focus-groups was as follows: two (18%) of the eleven participants were male and nine participants (82%) female in the first focus-group and three (38%) of the second group were male with five (62%) of the eight participants in the second focus-group female. Figure 4.1 provides a graphic illustration of the gender distribution of the focus groups. The gender distribution of students - especially in nursing and allied health professions - is traditionally more female students than male and at the FoHS, UFS it is not an exception.

The gender composition of the focus-group with lecturers is illustrated in Figure 4.1. Two (29%) of the seven lecturer participants were male and five (71%) female. The group of lecturers were actively involved in teaching clinical skills to students.

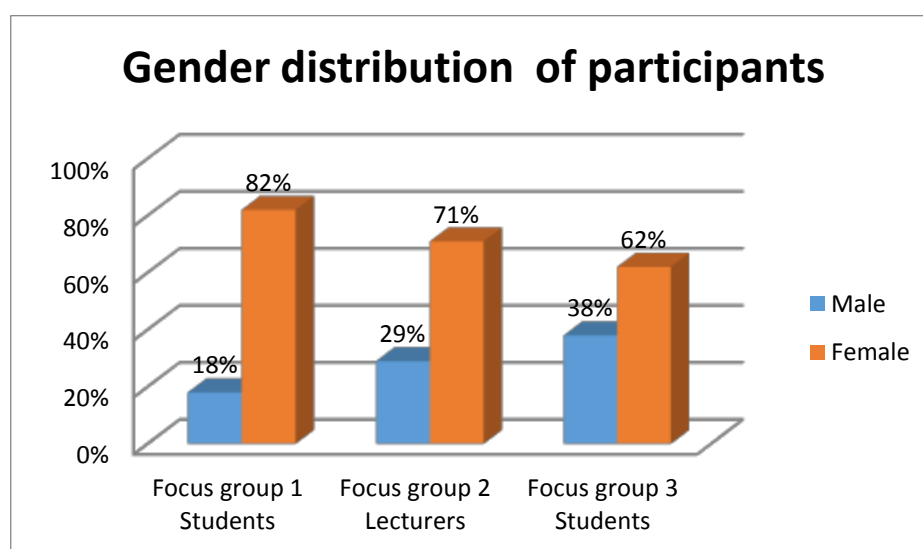


FIGURE 4.1: GENDER DISTRIBUTION OF FOCUS GROUP INTERVIEW PARTICIPANTS

4.2.1.2 Ethnic distribution of participants

The ethnic distribution (Figure 4.2) of student focus group one was: two (18%) of the participants were coloured and nine (82%) white. Student focus group two had two (25%) black, one (12.5%) coloured and five (62.5%) white participants, while the lecturers consisted of one (14%) coloured and six (86%) white participants. The researcher invited Indian students from the School of Medicine and Allied Health Professions to participate, but unfortunately, they were unable to attend.

When looking at the ethnic distribution of students at the FoHS over the past five years the total number of Black, Indian and Coloured students increased and the number of White students decreased. The total number of students at the School of Medicine increased from 114 fifth-year students to 172 first-year students (2016 figures). The number of white students currently in their fifth-year are 87. This decreased to 36 white students currently in their first-year of medical studies. The total number of Indian students stayed the same with nine current fifth-years and 10 current first-years. The biggest increase was in the number of African (Black) students who increased from 15 that is currently in their fifth year to 98 current first-year students (personal communication).

The number of undergraduate students in the School of Nursing increased from 235 students in 2011 to 302 students in 2016. The number of African (Black) students stayed the same in relation to the total number of students since 2011 (about 47% of the students). There are more African male students than white male students in the programme (personal communication).

The School for Allied Health Professions is comprised of Optometry, Physiotherapy, Occupational therapy and Dietetics. The total number of students enrolled in these programmes increased from 472 students to 493 students. The majority of students enrolled in these programmes are still white, with more female than male students (personal communication).

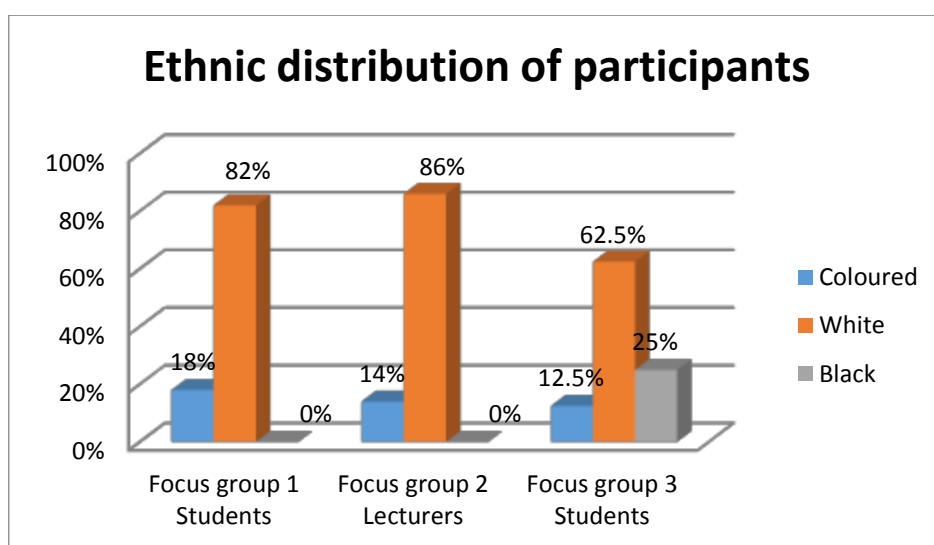


FIGURE 4.2: ETHNIC DISTRIBUTION OF PARTICIPANTS

4.2.1.3 *Language distribution of participants*

Currently, the UFS is still a parallel medium university with the exact same classes presented in both English and Afrikaans. Students apply for selection into the Afrikaans or English programme depending on their language preference. In Figure 4.3, the English and Afrikaans distribution of the students participating in the focus groups can be seen. In focus group one, three (27%) of participants followed the English programme and eight (73%) the Afrikaans programme. In the second student focus group five (62.5%) were in the English programme and three (37.5%) in the Afrikaans. The lecturer focus group had one (14%) English home language and six (86%) Afrikaans home language speaking participants.

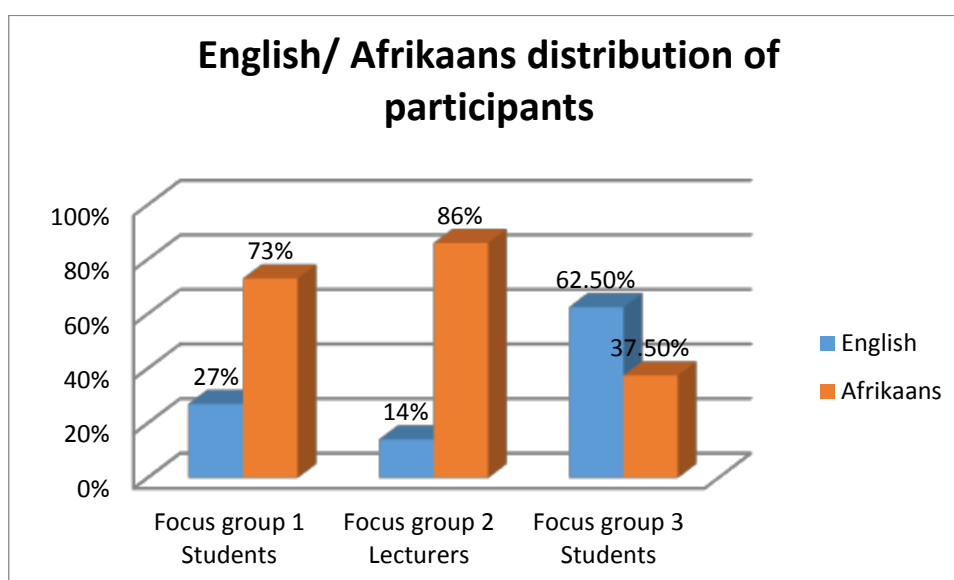


FIGURE 4.3: ENGLISH/AFRIKAANS DISTRIBUTION OF THE STUDENTS AND LECTURERS OF THE FOCUS-GROUP INTERVIEWS

4.2.1.3 *Distribution of professions among participants*

The first student focus group consisted of four (36%) students of the School of Medicine, one (9%) of the School of Nursing and six (55%) of the School for Allied Health Professions. Student focus group two had four (50%) students from the School of Medicine, one (12.5%) of the School of Nursing and three (37.5%) from the School for Allied Health Professions. The focus group with the lecturers had two (29%) from the School of Medicine, one (14%) from Nursing and four (57%) from the School for Allied Health Professions. Figure 4.4 summarises the distribution of participants from the three schools of the FoHS, UFS.

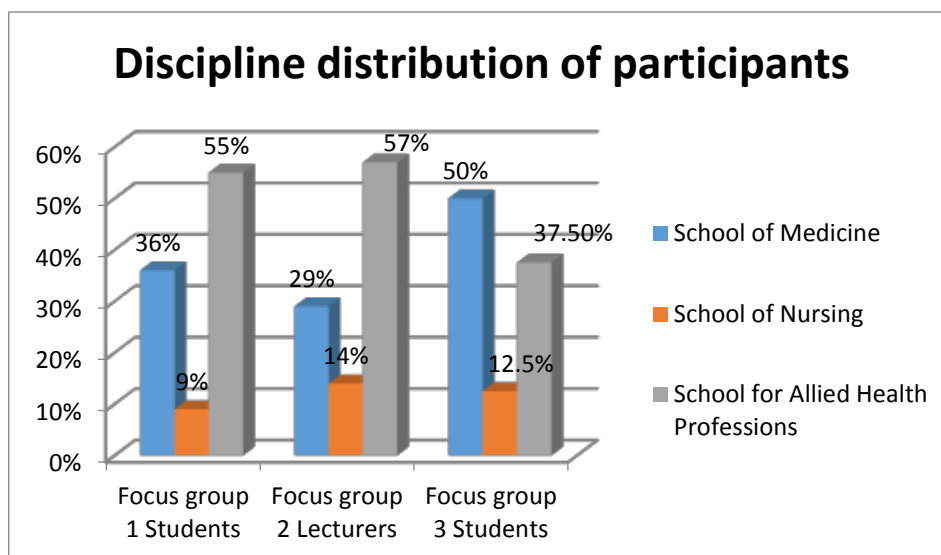


FIGURE 4.4: DISCIPLINE DISTRIBUTION AMONG PARTICIPANTS OF THE FOCUS-GROUPS

4.3 DEMOGRAPHIC AND PROFESSIONAL PROFILE OF THE RESEARCHER

In this section the personal characteristics of the researcher and her relationship with the participants will be discussed.

The researcher is a registered occupational health nurse with 25 years' experience in various fields of nursing and since 2014 holds a support staff position at the Clinical Simulation and Skills Unit of The School of Medicine, FoHS UFS where undergraduate medical students receive training in clinical skills. She is also registered as nurse educator at the South African Nursing Council (SANC) and holds a second position at the FoHS as junior lecturer (units) in the School of Nursing (since 2013), where she teaches the core modules in Health Care Management to post basic nursing students. These modules lead to the registration of the Nursing Administration qualification at the SANC. The researcher assists with the training of first year nursing students as preceptor. The researcher is familiar with the undergraduate programmes of the School of Medicine and the School of Nursing.

4.3.1 Observer/ Independent Observer

The researcher acted as observer during the focus group interviews and made field notes on the verbal and non-verbal reactions of the participants without any involvement in the discussion of the facilitator and research participants.

A second independent observer was present during the first student focus group and also the focus group with the lecturers. She is an experienced, registered operating room nurse as well as a nurse educator. The second observer made field notes on the verbal and non-verbal communication between the group members and also validated the transcriptions as reliable and exact copies of what was said during the interviews.

4.3.2 Facilitator

The first two focus groups were conducted by the same facilitator and the third focus group had another skilled facilitator from the CUT (cf. section 3.3.2.2; 3.3.2.8). Both facilitators created a comfortable, relaxed atmosphere where participation in the discussions could thrive (Botma *et al* 2010:212-213; Kitzinger 1995:300; Wilkinson 2004:177). All focus groups were conducted in English.

The facilitators and independent observer did not receive any personal gain from the study and were impartial to the remarks and opinions of participants; these factors as well as the fact that all three focus groups were conducted in the same venue at the Clinical Simulation and Skills Unit of the School of Medicine, UFS increased the transparency, validity and trustworthiness of the data collection process.

4.4 THEORETICAL FRAMEWORK AND DATA COLLECTION PROCESS

The theoretical framework, selection of participants, focus group setting and data collection were discussed in detail in Chapter 3 (cf. section 3.3.2.1 to 3.3.2.10).

4.4.1 The role of the facilitator during the focus-group discussions

Two facilitators were used for the three focus-group interviews. The original facilitator facilitated the first two focus groups, but was unfortunately not available for the last one so another person, also from the CUT, facilitated the last focus group with students. Both were experienced in facilitating focus group discussions. Both facilitators have all the qualities as listed by Chase and Alvarez (2000:365), namely empathy with participants; good with communication also picking up non-verbal cues from participants; skilled in handling group dynamics; and experienced in keeping the discussion focused on the topic at hand.

An interview guide with two open-ended questions compiled by the researcher was used in all three focus group interviews (cf. section 3.3.2.3). The following quotes are examples of the facilitators probing or summarising while facilitating the focus-groups.

Can I add to that question? Do you have any personal conflict with doing this? [SA16, FG 1]

No we're looking here for a set of rules. What do you think should the rules state to make PPE easier to handle or more acceptable to everyone? [SA33, FG 1]

Thank you. Anyone else? (Looking at no 4). [L10, FG 2]

You wanted to add (pointing to lecturer 7). [L27, FG 2]

You can go (gesturing to number 8). [SE10, FG 3]

You mentioned something that you're encouraged to work on each other? (Looking at number 5). [SE18, FG 3]

Facilitator number two summarised throughout the discussion and then asked the students to validate. A few examples of this follows:

So if I can summarise the feel of you that start now you enjoy participating? Ok. Any of you that would prefer to work on unknown simulated patients rather instead of peers? [SE14, FG 3]

Ok, so hmm we've addressed dress code, diversity issues, cultural issues in other words earlier we spoke about cross gender issues. Do you think that should be included in a policy? [SE56, FG 3]

The focus groups were paced according to the responses of the participants and when there were no new responses from participants, the research question was closed and moved on to the other question until both questions were thoroughly covered. All focus groups ended when there was no new information emerging from participants. The duration of each focus-group and the number of participants per session are summarised in Table 4.1.

TABLE 4.1. SUMMARY OF DURATION AND NUMBER OF PARTICIPANTS PER FOCUS GROUP SESSION

Focus Group	Number of participants	Professions	Duration of session
FG 1	11	5	47 minutes
FG 2	7	5	53 minutes
FG 3	8	3	63 minutes

4.5 REPORTING OF THE RESULTS

The results of the student focus groups will now be discussed. Both groups will be reported on simultaneously and after that the results of the lecturer focus group will be discussed. The results will be reported as suggested in Botma *et al.* (2010:224-225) and Rabiee (2004:657), (cf. 3.3.2.9). Data will be discussed using identified themes and categories. Quotes from the participants will be used to support the themes with the paragraph and focus group number to support it. For the purpose of this report, physiotherapy students will be referred to as “physio”, occupational therapy students as “OT”, optometry students as “optom”, medical students as “medical” and students from the School of Nursing will be referred to as “nursing”.

Focus groups were transcribed into a table with the words of each participant’s time to speak forming one paragraph or row in the table. The first focus group (FG 1) was labelled with an “SA” and the paragraphs numbered from 1 to 116. The paragraphs of the first student focus group (FG 1) is then described as: SA2 meaning the second paragraph of FG1. The second student focus group (FG3) has the letter “SE” in front of the paragraphs while the focus group interview with the lecturers (FG 2) has the letter “L” in front of the paragraphs. The specific person speaking is indicated as e.g. medical 1 if it is the words of a medical student together with the number allocated to him during the focus group interview. For example, [SE8, FG 3, Physio 5] where SE8 in the third focus group (FG3) the eighth paragraph the words of a Physiotherapy student who sat at number 5. Table 4.2 is a summary of the themes and categories identified in the focus group interviews with the students. The results of the focus group with the lecturers is in Table 4.3.

TABLE 4.2. THEMES AND CATEGORIES OF THE FOCUS GROUP INTERVIEWS WITH STUDENTS

Themes	Categories
Value of PPE	Benefits
	Advantages
	Disadvantages
Ethical consideration	Consent
	Voluntary/compulsory
	Respect/privacy/confidentiality
	Ethical dilemmas
Safety of students	Supervision
	Disabled students
	Physical dilemmas
	Types of physical examination
Student concerns	Gender
	Religion/culture/race
	Dress code
	Choice of partner
Miscellaneous	Limited practising time

4.5.1 Reporting on the research questions - Student focus groups

The questions that were asked to both student focus groups according to the interview guide were:

- - **What are the attitudes and experiences of students regarding the use of PPE at the FoHS, UFS?**
- - **In your opinion, what should the content of a PPE policy be?**

4.5.1.1 Theme 1: Value of using PPE

Category 1.1: Benefits of using PPE in skills training

Participants were very vocal in their support of the use of PPE in clinical skills training in both student focus groups.

“...creates a safe learning for students to develop their skills” [SA18, FG 1, Medical 4]

“I’m very positive towards it, hmm, I think it set me up very well for the clinical side of things. Hmm, so I’m very glad we have it” [SE7, FG 3, Medical 6].

“...positive thing because it sets out your clinical work much better...” [SE8, FG 3, Physio 5].

The feeling of support for the use of PPE is mutual between all disciplines and was noted by the independent observer and researcher as everyone were nodding their heads in support of these remarks.

Category 1.2: Advantages of using PPE in skills training

Building of **self-confidence** was one of the most mentioned comments by student participants.

“...by practising on each other you get over the initial awkwardness” [SA10, FG 1, Physio 1]

“... great experience, you get more self-confidence so if you have to go into clinical side it just improves you ...” [SE9, FG 3, Nursing 4]

“...build self-confidence which is a huge factor in effective clinical skills.” [SE11, FG 3, Medical 8].

One participant mentioned the fact that PPE **increases** the level of **competency** of the students.

“...not about comfortableness or the level of comfortableness, but the level of competency that it gives you” [SE41, FG 3, Physio 1].

PPE contributes to students learning to have **empathy** with patients. Hojat, Gonnella, Nasca, Mangione, Vergare and Magee (2002:1563, 1564) describe empathy as understanding the feelings of patients which will always be to the benefit of the patient.

“...you feel what the patient will feel so you can understand what the patient goes through” [SA21, FG 1, Optom 1]

“...remember the feeling you had at the beginning that number 5 said, that you were uncomfortable because your patient might feel that way” [SE44, FG 3, Physio 3].

PPE develop the **tactile skills** of students, which is important in health sciences.

“When you learn theory in all the other disciplines you learn the theory of how to do something but you never really get to feel what it feels like -Important to do before a situation arises where you actually need to know what something feels like in order to treat effectively” [SE11, FG 3, Medical 8]

“...touching and feeling and its important part of the faculty that we are in...” [SE19, FG 3, Physio 1].

Participants agreed that PPE help them to **act and communicate in a professional manner**. This is a very important skill that is needed when students enter the clinical areas in the different hospitals and clinics where they work. The development of leadership, communication, decision-making, situation awareness and interprofessional skills development is necessary to address the core competences for students in healthcare professions (HPCSA 2014).

“...basically, you should treat the person you examine as if they are a patient in all aspects” [SA111, FG 1, Medical 1]

“...act in a professional manner at all times” [SA59, FG 1, OT 1]

“...helps also for the interaction...” [SE13, FG 3, Medical 2]

“...it also helps with one day when you get to a patient.... have an idea of how to handle yourself in the situation.” [SA63, FG 1, Medical 1]

“... so it is practicing speaking in laymen’s terms how to actually conduct your techniques...” [SA23, FG 1, Physio 1]

Peer-assisted learning is something mentioned by many participants. Peer-assisted learning (PAL) is a teaching and learning approach that is well researched, with a substantive evidence basis for effectiveness (Topping & Ehly 2001:114). PAL is particularly useful to ease the transition from pre-clinical to clinical environment. The fact that the participants mentioned PAL in the context of PPE gives an indication that the students grasped the concept and understand the value of learning with and from each other.

“...it’s nice to also to practice the techniques on each other because if you do it wrong your fellow students can help you and correct you.” [SA12, FG 1, Physio 1]

“...you make a mistake the person that is helping you on which you are practicing also helping you correct some of your mistakes so...” [SA14, FG 1, Medical 1]

“...it’s a nice way of Basically, just try out the techniques” [SE8, FG 3, Physio 5]

Part of peer tutoring is the **relationship between students** improves as they are in this situation together and learn to know and trust one another.

“... with your peers, you’re also form a part of responsibility and respect stuff between each other so that you have the openness to go to each other and ask for help or for chaperone like in the guy situation if they have to work with a lady patient...” [SE39, FG 3, Medical 2]

From the responses of the participants it can be deducted that students enjoy PPE and have insight into the valuable lessons they learn while practising. It is not only the

physical skill and competency level that improves, but also the way they interact with others, communication and professionalism improves, which are compulsory skills needed when working in the healthcare sector (HPCSA 2014).

Category 1.3. Disadvantages of the use of PPE in clinical skills training

There is **not enough supervision** when performing PPE, which makes the students uncertain whether they are practising the techniques and skills correctly. This was something that had been mentioned by several participants and by all professions present.

“...a lack it would be kind of like more guiding mentorship there should be a measure of hmm of ...what’s it? (toesig)... what do you say Supervision over the students.

“[SA18, FG 1, Medical 4]

“...we are too quick to help each other and you don’t know if you are actually helping each other in the correct way.” [SA23, FG 1, Physio 1]

“...guidelines towards supervision when doing PPE. There is no use in saying ok guys you’re going to do your PPE and the lecturer or the doctor walks out.” [SA35, FG 1, Medical 4]

“...no supervision. You tend to groove around as well. You’re not as focused...” [SA39, FG 1, Medical 1]

“...need extra supervision especially for a large group of people just to make sure that the people are actually doing the examinations are doing it correctly...” [SE65, FG 3, Physio 5]

“...bit lacking is the supervision that we have in the peer examination...” [SE66, FG 3, Physio 1]

“...your expectation as a student that your lecturer will check on you ...walk around but then they only go to you if you call them to assist you whereas sometimes you might be thinking you are performing the technique correctly but there’s a small change that you should make about moving your hands or changing your position...” [SE66, FG 3, Physio 1]

The students’ form **groups** which always want to practise together; the problem with this scenario is the lack of exposure to people of different body weight, gender etc.

“...practice on so many girls or guys or whatever, but you get to your patient it’s completely different.” [SA57, FG 1, Physio 1]

“...when you work with a patient they’re not the same body type, they’re not the same...” [SA61, FG 1, OT 1]

“...try it on different people because everybody is not the same not the same body weight or mass or whatever, so ja. It’s always good to have a variety...” [SE17, FG 3, Physio 5]

Participants sometimes **feel exposed** when practising PPE.

“...feels expose because there is like 10 students standing around him...” [SE54, FG 3, Medical 2]

“...a lot of students take photos during this ... or videos. Then you are exposed if you give your consent...” [SE94, FG 3, Nursing 4]

Many participants feel there is **not enough time** for everybody to **practise** during the time allocated for skills practising.

“...sometimes you are ten to eleven in one room ... Then you kind of struggle because not everyone get a chance.” [SE60, FG 3, Nursing 4]

“The group sizes are a factor and it do have an impact on what chance is there for peer physical examination.” [SE61, FG 3, Medical 8]

“...everyone just gets time to do one technique and then what?” [SA29, FG 1, Physio 1]

“...smaller groups- time to practise...” [SA36, FG 1, Nursing 1]

“...there are still 10 people after me that should also get a chance and that should happen before say 12h00 or so.” [SA38, FG 1, Medical 4]

When practising with a peer, students do not have to explain what they expect from the “patient”, because the “patient” know what is expected from him or her. The result is the students forget to explain clearly to patients and then there is a **communication gap** between the student and the patient.

“...actually your friend is just like positioning because they know the expectation. ... you just kind of touching their leg and they oh I’m sorry like they actually doing it for you.” [SA24, FG 1, OT 1]

Participants of focus group three mentioned that the way **skills are taught is not consistent**. Every lecturer teaches and performs the skills differently from the others. This is of particular concern for the students, because this is their first encounter with the particular skill.

“...every doctor has a personal style on examination and that’s not necessarily a bad thing in practise but it’s a bad thing in teaching...any discipline but particular applicable to medicine because that is my experience. Different demonstrators on the same day will teach you different things in different ways and that is very confusing...” [SE67, FG 3, Medical 8]

Some students find it **difficult to act** upon a fellow student simulating a patient with a specific problem.

“now you have your best friend in front of you and now they’re not spastic so now to try and do the preparation techniques ... on someone who is normal who does not have these disabilities or these deficiencies sometimes it is a bit awkward and you are not able to fully grasp the concept of what they try to teach you through the activity.” [SA13, FG 1, OT 1]

Supervision is a really major concern of the students. They want to know they are performing the examination or the procedure correctly and therefore supervisors must be available to assist and correct techniques if necessary. Practising time will also be better arranged when more supervisors are available and students will be busy the whole time and not wasting time on other non-related activities.

4.5.1.2 Theme 2: Ethical consideration when using PPE

Category 2.1. Consent

Consent was the first thing that came to mind when participants were asked what needs to be the content of a PPE policy for the FoHS, UFS. Participants suggested they need **more information** and time before they sign the consent forms. They **need time** to look at it and discuss anything they are uncertain of with someone in private before signing.

“...think it necessary that they should write consent to give ...” [SA27, FG 1, Physio 2]

“... then have it explained and then have opportunities for if you unsure about something or uncertain ... speak to someone one on one instead of open up in front of a class full of people and then consent forms should be signed. ...” [SE86, FG 3, Physio 1]

“...consent obtained it should be explained and then signed...” [SE89, FG 3, Medical 8]

“...think the consent form should be more detailed...” [SE90, FG 3, Physio 3]

“...also be included the option of retracting your consent for any treatment you feel uncomfortable with.” [SE92, FG 3, Physio 5]

“...can say you give consent to everything but you don’t want to expose ... you can already tell them you don’t give consent for certain parts of the information...” [SE93, FG 3, Medical 2]

“... we signed our forms stating that we will participate in medical thing back in first year in January before we even started with class and everybody was just speculating now what is this now and it sound very fishy when you signed it and nobody knew what they actually signed there it’s just like well I want to study, so...” [SA109, FG 1, Medical 4]

Participants feel participation in PPE should be **voluntary** and if someone do not want to participate there must be a system in place so the student will **not be penalised** or feel that he/she is been marginalised by not participating.

"If someone just don't want to participate they don't have to then they can just practice on someone else ..." [SA44, FG 1, Physio 1]

"... policy must say if you're not comfortable with other people doing the physical examination on you we don't force me." [SA89, FG 1, Nursing 1e]

"Yah so being the simulant as they said should be voluntary" [SA90, FG 1, Medical 4]

"...different religions ...could do things with them and how they can do so they don't feel discriminated or feel disadvantaged because they can't do things in the class." [SE53, FG 3, Physio 5]

"It goes back to if you don't want to be a patient then don't be it. If you don't want to be exposed to everybody and let them do whatever they want, then don't do it..." [SA105, FG 1, Nursing 1]

"... if you feel you cannot be a simulant maybe come forward to the lecturer who's giving you this class and we will make precautions or alterations for that ..." [SA75, FG 1, OT 1]

Category 2.3. Respect, privacy and confidentiality

Respect, privacy and confidentiality were also mentioned several times. These characteristics are very important later in the professional and private life of everyone in health sciences. Patients must be able to feel comfortable and know they can trust the healthcare professional with anything that bothers them. Participants must **feel safe** when participating in PPE without being scared of personal jokes or remarks from other students.

"I think what happens in the class stays there. Except if it's like jokes made or something but not personal stuff." [SA43, FG 1, Physio 2]

"Have respect for the person that's laying there." [SA67, FG 1, Medical 4]

"...what happens if, you know what I mean, there is something and they don't want the lecturer to know about it or the doctor. What about that confidentiality?" [SA92, FG 1, OT 1]

"Is there confidentiality between students? Because when we are practicing on each other there is no confidentiality?" [SA93, FG 1, Medical 4]. (After this remark, there was silence around the table in the focus group discussion)

"There is currently no confidentiality." [SA96, FG 1, Medical 4]

“... think it’s good to have confidentiality, but I think that’s awesome to learn. I think if you’re not willing to expose yourself then don’t do it.” [SA105, FG 1, Nursing 1]

“There must be respect and confidentiality. I think the understanding is the biggest part...” [SA108, FG 1, Physio 1]

“... a confidential thing and confidentiality is difficult between us students. We like to chat about your day or whatever. It should be stated and like emphasized and respect.” [SA108, FG 1, Physio 1]

“... think back to the confidentiality. I think you’re not going to blurt out to everybody yah do you know that one got cancer...” [SA110, FG 1, Nursing 1]

“... should treat the person you examine as if they are a patient in all aspects.” [SA111, FG 1, Medical 1]

“... the girls can go with the guys but the guys can’t really examine the girls because its more private the girls go separately and examine each other.” [SE30, FG 3, Medical 2]

“... students should respect just privacy and always be dignified in what they do and while they carry out their evaluations or examinations on each other. So basically, just taking each other into consideration and just to be respect privacy...” [SE51, FG 3, Physio 5]

“...a female student says she is uncomfortable by having a male student examining her always making sure she is paired with another student so that you never put a student in an uncomfortable situation...” [SE57, FG 3, Physio 1]

Category 2.4. Ethical dilemmas

The last category under ethical consideration is the **ethical dilemmas** that transpires sporadically. Photos and videos that are posted on **social media** can create a problem. Students enjoy talking to others about what happened in class and will not think twice telling a story that involved somebody in class with an interesting condition or abnormality. From previous experience with students where a **medical condition has been identified** in class, the researcher is aware of the distress students experience with this situation. A policy will guide lecturers and students to obtain the best possible assistance for the person. Some of the remarks students made on ethical issues follows:

“... take videos of the person but if the person does not want to then we don’t do it, but I think that should be in the policy because at this stage we are not allowed to take any videos or any footage what so ever and it is quite frustrating ...” [SA27, FG 1, Physio 2]

“... you can’t go around telling everyone what you saw” [SA43, FG 1, Physio 2]

“some of the guys had never in their live done a thorax or abdominal examination on a female patient so it was very awkward for them to have the woman the lady laying there in her bra and everything and they don’t know what to do.” [SA47, FG 1, Medical 4]

“...if I’m examining someone and I see or I feel that something might be wrong. But it’s also not for me to judge so I would take my concerns to the doctor...” [SA65, FG 1, Medical 2]

“...guideline for specific religions that say exactly what is allowed and what is not allowed.” [SA72, FG 1, Medical 2]

“... race and you are female and you don’t want to be examined by a different race or a different gender then ... Saying this is my fear this is my concern and I’m not comfortable with this and this and this, so please as my lecturer or my doctor or so please see that I’m protected within this policy to not being exposed to any of this, this and this.” [SA83-S87, FG 1, Medical 4]

“...that if you noticed that something is a little strange ... what happens if, you know what I mean, there is something and they don’t want the lecturer to know about it or the doctor. What about that confidentiality?” [SA92, FG 1, OT 1]

“You should know that if someone find something that is a bit abnormal they want everyone to see it, you should know what it is going to entail.” [SA106, FG 1, Medical 1]

“...confidentiality is difficult between us students. We like to chat about your day or whatever.” [SA108, FG 1, Physio 1]

“...you signed it and nobody knew what they actually signed there it’s just like well I want to study, so...” [SA109, FG 1, Medical 4]

“...Just check yourself in terms of where you can touch and always just always make sure that you respect the patient’s privacy...” [SE31, FG 3, Physio 5]

“If, for example a female student says she is uncomfortable by having a male student examining her always making sure she is paired with another student so that you never put a student in an uncomfortable situation...” [SE57, FG 3, Physio 1]

“...must add that photos maybe taken because a lot of students take photos during this ... or videos. Then you are exposed if you give your consent...” [SE94, FG 3, Nursing 4]

4.5.1.3 Theme 3: Student safety when using PPE

Category 3.1. Supervision

Many of the participants mentioned that a lack of **supervision** has an effect on the quality of the teaching and learning that takes place during the practise of PPE. Students feel unsure (many times it is their first encounter with the specific examination or skill) and

need more **guidance while performing** the different skills and examinations. When different lecturers are overseeing a session, they must receive training prior to the session so that all of them will provide the **same information to the students** and teach them to perform the examination in the same manner.

Students can accidentally injure a fellow student when certain techniques are not performed correctly and a shortage of supervisors may thus lead to an injury.

“that if there is a lack it would be kind of like more guiding mentorship in terms of you are two students who are not completely sure of how to do this and are practicing on each other so I one of them will take lead and the other will kind of follow but both wrong or off course they’re not currently hmm actually learning anything at all. So I think there should be a measure of hmm of ... Supervision over the students.” [SA18, FG 1, Medical 4]

“Also guidelines towards supervision when doing PPE. There is no use in saying ok guys you’re going to do your PPE and the lecturer or the doctor walks out because there’s no control, there’s no regulation over if they are actually doing it correctly and then it’s not even a medical opportunity. I think the aim of PPE is to learn and to teach and to educate the students. So without that supervision and guidance and leadership its void, it’s not worth anything.” [SA35, FG 1, Medical 4]

“... you practice alone and there’s no supervision. You tend to groove around as well. You’re not as focused as you would be...” [SA39, FG 1, Medical 1]

“... your expectation as a student that your lecturer will check on you because what happens is they show you a technique and then they say ok everyone will practise it but they’ll walk around but then they only go to you if you call them to assist you whereas sometimes you might be thinking you are performing the technique correctly but there’s a small change that you should make about moving your hands or changing your position.” [SE66, FG 3, Physio 1]

“... I think also in the policy that training must be given for demonstrators and lecturers on the technique of the examinations itself because what we find I’ll just use the medical school as example. Every doctor has a personal style on examination and that’s not necessarily a bad thing in practise but it’s a bad thing in teaching.” [SE67, FG 3, Medical 8]

Category 3.2. Disabled students

Some students need more assistance than others and occasionally there are disabled students in the programmes at the FoHS. In the past three years, the researcher knows

about two **students with a physical problem** in the School of Medicine and one at the School of Nursing. Students with disabilities need extra attention and encouragement as they may struggle with some of the skills needed to be fully functional as a healthcare professional and also to boost their self-esteem as they sometimes feel worthless when they cannot perform certain skills. This was discussed only by participants of the second student focus group.

“... students that require special attention. There’s obvious students that needs extra time students that have disabilities, students that have particular examinations or skills that are difficult for certain students hmm maybe that will fall in an official policy or just have a look at that because I think those students could be marginalised in assessment e.g. or even in the practical classes because the facilities are not available for such students.im not sure if there are cases like I know in medicine there are one or 2 cases.” [SE83, FG 3, Medical 8]

“... same problem with one of the students and it was a long process because you have to work through the university. The varsity psychologist and get a form and everything so that kind of yah I also agree with him you must maybe look at that as well. It’s a long process the whole of the year is almost finished and then they could only help them and then half of them are already gone that’s a problem.” [SE84, FG 3, Nursing 4]

Category 3.3. Physical dilemmas

Some of the techniques and skills performed by the students may injure or **harm a fellow student** if performed incorrectly. Lecturers and students should know what to do in a situation like that. This was not discussed in the first student focus group.

“So you don’t have to wait for the patient to cry or whatever so you can just see on each other what techniques work the best and you can tell each other how to do it better or whatever...” [SE13, FG 3, Medical 2]

“How hard I can push it where I can feel it and then you know how painful something is so that when you’re with the patient you know be careful, you taking notice you’re using all your skills that...” [SE41, FG 3, Physio 1]

“... open for something to happen so to cover hmm the university basically just have something in the policy outlining what measures what steps you take should something happen you’re not comfortable with that you want to report ...” [SE101, FG 3, Physio 5]

Category 3.4. Types of physical examination

Not all examinations can be practised on a peer. Participants were content with the examinations they are currently practised on one another, but these are not **invasive examinations** e.g. gynaecological examinations etc. Participants in the study said there should be rules regarding the types of examinations that may be performed on peers. In the School of Medicine, male and female students normally practise separately in the clinical skills classes and although male students would allow females to practise on them, the other way around is not the norm. This leads to male students feeling awkward when they come to the examination and suddenly they need to perform this examination on a female.

"I think rules in terms of what examinations you can perform. Cause certain examinations are not appropriate even on your friend. I mean outside you can't go and ask someone to do a gynaecological examination." [SA34, FG 1, Medical 1]

"But then it happened in the exam last year when they gave a female hmm patient to the participants of the exam the students and some of the guys had never in their live done a thorax or abdominal examination on a female patient so it was very awkward for them to have the woman the lady laying there in her bra and everything and they don't know what to do." [SA47, FG 1, Medical 4]

"Hmm the only area I can think of where it was a little bit tricky obviously hmm crotch hmm inguinal regions..." [SE27, FG 3, Medical 8]

"... physiotherapy students hmm so in a way hmm we don't really have a choice in terms of whom we can actually practise on so but what number 2 also said now the guys are always more willing to actually practise or volunteer hmm for hmm examinations either by lecturers or by female student partner..." [SE31, FG 3, Physio 5]

"... for any intimate examinations that we learn we use models. We don't actually practise on real people. So, I think that problem is avoided." [SE35, FG 3, Medical 6]

"... physiotherapists we don't really have that at undergraduate level. We don't do those intimate examinations." [SE37, FG 3, Physio 5]

4.5.1.4 Theme 4: Student concerns when using PPE

The participants of the two student focus groups had certain concerns, except the abovementioned, regarding their participation in PPE.

Category 4.1. Gender

In the School of Nursing and School for Allied Health Professions, it seems that gender is not a major issue. All students participate in PPE and practise on one another, regardless of the gender of the person.

"... in a way hmm we don't really have a choice in terms of whom we can actually practise on so but what number 2 also said now the guys are always more willing to actually practise or volunteer hmm for hmm examinations either by lecturers or by female student partner and it's..." [SE31, FG 3, Physio 5]

"In our, the School of Nursing we go into the same room... makes the guys and girls together I don't know because I mean were all grown up and were all used to all the things it's not supposed to be something different for you or something weird so maybe that is something to look at just to make it equal to the rights and everything as well." [SE60, FG 3, Nursing 3]

At the School of Medicine there is different rooms for the male and female students to practise in. This may cause problems as discussed previously (cf. 4.5.1.2. category 2.4)

"the females practice on the males, but the males don't do any examination on the females." [SA46, FG 1, Medical 1]

"... the girls can go with the guys but the guys can't really examine the girls because its more private the girls go separately and examine each other." [SE30, FG 3, Medical 2]

Category 4.2. Religion, Cultural, Race

With the diverse student complement at all the universities, religion and cultural beliefs are aspects that should be considered with care. The differences in religious and cultural beliefs are not common knowledge and a person must be careful not to infringe any person's personal beliefs. A policy or guidelines will help bridge that gap as it can be included in there.

"... guideline for specific religions that say exactly what is allowed and what is not allowed. So, we as the students also have a general idea as what were allowed to do and not allow to do." [SA72, FG 1, Medical 2]

"... enter as a first-year student you have to state, sorry but you have to state your religion and then your lecturer or someone must know and then you can have maybe your peer or just one person knowing that this part is off limits or something ..." [SA73, FG 1, Physio 1]

“... different religions like I feel like more should be, more research should be done how we could do things with them and how they can do so they don’t feel discriminated or feel disadvantaged because they can’t do things in the class.” [SE53, FG 3, Physio 5]

“... into consideration your religion, the culture, all those types of things it will be easier to implement hmm, hmm, how can I say the yah I think implement how students actually partake in this PPE. If your religion does not actually allow you to be undressing or what ook al it might be unfair to someone else because they have to do it and you don’t have to do ...” [SE87, FG 3, Physio 5]

In the first focus group, race was also discussed. It is a difficult topic, but still valid in the South African context as there are still people who do not want to be examined by someone from another race and they also need to be accommodated.

“Well I think the same precautions should be hmm if you are say some race and you are female and you don’t want to be examined by a different race or a different gender then that should all be taken into consideration the same as religion hmm...” [SA83, FG 1, Medical 4]

“... will obviously create certain ructions and so depending what the situation, but I think we should also not be ignorant and thinking that we live in a perfect world and everybody is... hmm everybody is ok with everything ... if there was something that maybe make it uncomfortable for them, they should be respected in that sense. So I feel that just like that could be something that they should be able to discuss with someone they trust or the lecturer or so.” [SA87, FG 1, Medical 4]

“... if you have any reason like with the religion thing and also if you have any other reasons for people not, you know what I mean, not touch you if I mean yah. Then you can bring the race...” [SA88, FG 1, OT 1]

“I think personally the policy must say if you’re not comfortable with other people doing the physical examination on you we don’t force me. You don’t have to be forced, you don’t have to be the patient” [SA89, FG 1, Nursing 1]

Category 4.3. Dress code

Students want to know in advance what they are going to do in the practical skills classes as it is easier to wear clothes that can be pulled up or down as to totally undress to perform certain examinations. Physiotherapy students sometimes need to undress till they are only in their underwear, but according to the participants there are always enough towels available and they do not feel exposed.

“... have available like a lot of towels or whatever to cover up when necessary. With us we really need to get dress down to our underwear sometimes...” [SA44, FG 1, Physio 1]

“... bring another set of clothes, clothes to class so ski pants and maybe a tank top hmm and one of the guys forgot to bring a short. ... could be supplied like a pair of pants to someone or if you can have a locker to put something away for the year for the course.” [SE50, FG 3, Physio 3]

“... tell the guys were going do legs or whatever so the girls can also bring shorts and make that stuff easier and make it comfortable for everyone so they just can exercise and practise that better...” [SE54, FG 3, Medical 2]

Category 4.4. Choice of partner

In the first focus group, one of the medical students preferred to be paired with a specific person for skills training in class. This may initially potentially assist students in getting over the awkwardness and shyness of practising physical examinations on a person, but in the long run it is better to practise on several people because no person is built exactly the same.

“assigned to certain partners who you do your PPE ... if you get your one or two people that you always practice with you build a relationship within that and you build confidence in saying ok listen I don’t know what I’m doing now, please help me with this, this and this. Where with “strangers” and people you don’t know that well you don’t have that confidence because you have to put a smile on your face and fake it.” [SA60, FG 1, Medical 4]

“... doing examinations everyone is different everyone’s body is different.” [SA61, FG 1, OT 1]

4.5.1.5 Theme 5: Miscellaneous

The participants had a problem with **time restraints** when practising skills as the classes are fairly big and there is not always time for everyone to practise as many times as they would want to. One of the participants suggested that a video of the session be uploaded onto Blackboard (learning management system) and that **students need to prepare in advance**. The session can then immediately start with skills practising as everyone will know what will be expected of them. “Flip the classroom” is the suggestion of the students. Flipping the classroom is a fairly new educational concept introduced in 2008 by Jonathan Bergman and Aaron Sams. The reasoning behind flipping the classroom is

to give students the opportunity to go through the work that should have been presented in class, at home and at their own pace. An advantage of this is that the student is able to go through the pre-recorded presentation or study material numerous times until he is satisfied with his knowledge. A disadvantage is questions cannot be asked or answered immediately and the student need to wait until the following contact session (Bergman & Sams 2012:13-16).

“... if you know your work it goes quicker to do the examination...” [SE60, FG 3, Nursing 4]

“But I was also thinking in terms of lectures can maybe use videos preloaded on blackboard or something just for students to actually check their techniques or whatever and hmm and then come to class prepared and still demonstrate in class and then the student can specifically ask certain questions that they saw on the video and what they see now twice with the demonstration before they actually partake in the examination...” [SE62, FG 3, Physio 5]

“... upload it to you tube or blackboard and then tell the students to hmm to look at the video beforehand so that they can come and perform it in class so it’s more interactive not just a lecturer that does it on her, on a volunteer but rather students that come up and say ok, I’ll do the whatever examination. Then it’s more interactive so the lecturer can help them there in front of everyone and everyone can participate.” [SE64, FG 3, Medical 2]

“watch the video and prepare the lect... the session beforehand and then come in and rather instead of doing CPS let you do the technique and give you marks on the technique so that’s like your mini evaluation and then they can also tell you ok you’re not doing it right...” [SE76, FG 3, Medical 2]

“... maybe we should have assessment prior to class beginning based on the videos or the preparation you had to do.” [SE79, FG 3, Physio 5]

“before you are allowed to leave they go and check that you’re executing what you’re supposed to do properly because a lot of times I know students are, they drag, they just want to go home...” [SE80, FG 3, Physio 1]

It is important that the **videos** that are used must be **updated** to reflect the latest developments in the field and the content of the video must be the one students are examined on. Videos must be watched at home and not in class, the actual class time must only be used for a demonstration and PPE.

“... old videos and the techniques are much different from what we do now in practise so I think they should update it like the lecturers that give that specific lecture and make the

video with say for with the first group or just before that session start and then upload...”

[SE64, FG 3, Medical 2]

“... the policy they can just say that the video must be applied to that exam...” [SE69, FG 3, Nursing 4]

Some lecturers are “**not approachable**.” Students are too afraid to ask questions and will rather ask a fellow student.

“... not comfortable to come to the ... and I don’t agree with this. Like I said sometimes they’re not approachable” [SE99, FG3, Nursing 4]

4.5.2 Reporting on the research questions - Lecturer focus group

The questions that were asked in the focus group interview with lecturers participating in a module where PPE is used are:

What are the attitudes and perceptions of lecturers regarding PPE at the FoHS, UFS?

In your opinion, what should be the content of a PPE policy or guidelines?

The following themes and categories that were identified by the researcher will now be discussed.

TABLE 4.3. IDENTIFIED THEMES AND CATEGORIES OF THE FOCUS GROUP INTERVIEWS WITH LECTURERS

Themes	Categories
Value of PPE	Benefit of the use of PPE
	Advantages of using PPE
	Disadvantages of using PPE
Ethical consideration	Consent
	Indemnity
	Voluntary/ compulsory
	Privacy/respect
	Ethical dilemmas
	Human rights
Student safety	Supervision
	Types of examinations
Miscellaneous	Gender
	Religion, culture, beliefs

4.5.2.1 Theme 1: Value of PPE

Category 1.1 Benefit of the use of PPE

All participants were united in their support for the use of PPE in clinical skills training.

“Yes. I think it’s an excellent, excellent idea. And it should be used extensively that’s my opinion.” [L15, FG 2, Lecturer5]

“So, it’s really very good preparation for students when they get to the hospital they know exactly what to do and practise even introduction.” [L16, FG 2, Lecturer 9]

“I think there is safety in the learning as an education tool ... So they are safer in the learning situation with the peers than with a simulated patient.” [L40, FG 2, Lecturer 4]

Category 1.2. Advantages of using PPE

PPE **prepares students** for the clinical work they need to do. It helps them **gain confidence** for when they need to perform the skills on actual patients. From a personal point of view with the researchers’ experience with both first-year nursing students and second-year medical students, one can see the development in confidence levels from where they begin with PPE till at the level where they practise it in the clinical areas.

“You need to go through all of the systems you need to be able to use the equipment. And best way to teach and to learn and to gain confidence is actually by practising on your peer.” [L16, FG 2, Lecturer 9]

PPE helps students explain procedures better to patients when they have experienced it. This forms part of the **communication skills** which is of utmost importance in any healthcare profession and is also one of the core competencies according to the professional attributes of the HPCSA (HPCSA 2014).

“... after the first time that they practise on each then the explanations immediately gets better because they’ve got experience what it feels like themselves.” [L18, FG 2, Lecturer 1]

When practising PPE, students will **master a certain technique**. It is important to keep in mind that all students are fairly “normal”, so the students will be able to practise the normal, but not necessarily be able to integrate theory and practice and recognise abnormalities that they will see when they start with clinical rotations in the hospital.

“... get to master the method of the examination or assessment, not really understanding how to see a problem or how to identify or integrate what they experience so with the

focus when we do peer hmm peer examinations that they do on their peers is for them to master the method of the assessment..." [L19, FG 2, Lecturer 3]

Students **learn from one another (peer assisted learning)** while practising PPE. This can be positive or negative as students sometimes correct their peers while they themselves are doing it incorrectly and help each other of the frying pan into the fire.

"... see what mistake their peers make and you won't find that student making the same mistake." [L31, FG 2, Lecturer 1]

"we actually have where students that was doing it correctly is now taught by over confident students who didn't really grasp what to do, but they are confident and reassured and so they can even confuse your student who did have it right and did do it correct." [L28, FG 2, Lecturer 7]

PPE prepare students for the workplace as they need to **practise on a diverse group** of people and they all need to work together. It assists them in developing skills to adjust the dynamics that is always present when working together in a group because of the difference in personalities and backgrounds between group members.

"... but I do think it's a nice developmental skill to learn to work with different personalities. So preparing you for work with people from different backgrounds, different perceptions, and different levels of skills." [L33, FG 2, Lecturer 7]

Category 1.3. Disadvantages of using PPE

The disadvantages of using PPE is disciplinary of nature. Students tend to make jokes when there is **no supervision** or **not enough supervisors**. They may also make personal remarks about another student which can be very bad for that person. *"When they start laughing at each other and making jokes making remarks which can be either very bad or making others sort of damper on the whole situation. So I think that whenever this type of examinations are required there should be discipline in the situation..." [L21, FG 2, Lecturer 5]*

Students must not only **practise the steps of a certain skill**, they need to integrate what they practise with the theory behind it to obtain the full value of practising on their peers. Students not always take this fact into consideration and just want to complete the practise and go home.

“... they kind of memorise by a list and not the technique individually as such and if I just tick the box in every technique they don't really think about what they are doing.” [L23, FG 2, Lecturer 7]

Some students are slower than others in learning a skill and it is easy for lecturers to ignore or not notice them, especially in bigger classes. From experience with the students the researcher noticed this **difference in capabilities** and many times students who have more or less the same academic/practical ability tend to group and work together and will be more outspoken while the ones struggling shy away from any attention that will maybe put them on the spot.

“... they will then withdraw. I've seen that in the fifth year ... they withdrew and they stand back. So one must be very careful not to neglect “in aanhalingstekens” neglect these students. They must have- all must have the same opportunity. [L26, FG 2, Lecturer 5]

“There's a group that always struggle and there's the group that always finish early. Yah, and that's also something one certainly needs to control. Because sometimes the group that grasp quickly they get bored, because they practice and they did grasp the....” [L30, FG 2, Lecturer 3]

Language is also a **problem** for some students. They struggle to express themselves and cannot communicate effectively with a patient. Effective communication skills as previously discussed (cf. section 4.5.2.1 category 1.2) is one of the most important skills needed in the healthcare profession and is also a compulsory competency to acquire according to the HPCSA (HPCSA 2014).

“... language problems. Convey messages some people can't explain themselves very easily. And there's again a barrier in this situation.” [L26, FG 2, Lecturer 5]

4.5.2.2 Theme 2: Ethical issues when practising PPE

Category 2.1. Consent

Consent was the first thing that came to mind when asked what should be included in the guidelines for a policy on PPE. Consent for **participating in PPE** will protect the students as well as the UFS, but students need to be accurately informed on what is expected from them and what is meant by participating in PPE. Consent is also very important when **videos** are made from the students even though it is only for teaching purposes.

"I think number one what should top the list is consent. That both sides both students if they going to examine each other should give consent that they might be, they may be examined." [L47, FG 2, Lecturer 5]

"... comes down to communication. And it must be available for them to read in their workbook..." [L54, FG 2, Lecturer 5]

Category 2.2. Indemnity

One of the participants added that in physiotherapy **indemnity** was added to consent (cf. 2.6.3). It is actually very good to add this to consent - especially when the students may perform some of the examinations wrong and accidentally hurt a fellow student.

"We have added consent forms as well as indemnity forms. If the student does overstretch a muscle..." [L50, FG 2, Lecturer 7]

Category 2.3. Voluntary/compulsory

Participants in this focus group felt that participation must be compulsory. When a student enrolls for the course, they need to receive the necessary information regarding PPE. When some of the students do not want to participate, it is unfair to their peers as they also need somebody to practise on.

"... what is expected from them their pupils will be dilated and this and this and this will be done and then sign for it. So, they give consent for it but it's not really voluntary." [L53, FG 2, Lecturer 1]

"very interesting point because they should know that if they are in the course. (This is what number 1 is –) this is what's going to happen to them. So, if they then start nagging and objecting on that and that at that level then they should not be in the course..." [L54, FG 2, Lecturer 5]

"Are you going to look at, at will? Do you have an option if you start the course is it an option or you're start the course you will be a patient?" [L56, FG 2, Lecturer 9]

*"I think they must still feel what it feels like to being examined. I think it just make you a better doctor or a better physio or a better... but **I do feel everybody must be exposed** because you **must** know what it feels like to have your blood taken or have your blood pressure taken or whatever the case may be."* [L61, FG 2, Lecturer 1]

Category 2.4. Privacy/ respect

Some of the students are very self-conscious on how they look and do not want to undress in front of others. Even some of the male students have a problem with their **body image**. One of the participants suggested smaller groups of one or two students which will be better as the student will not feel so exposed. Another participant mentioned the importance of covering your patients (privacy) and when students participate in PPE and need to undress they become aware of the importance of that and will remember to always **ensure privacy** and cover their patients as far as possible.

“Some of the females are very self-conscious about their bodies and the guys are worried about their six-packs, so those ones they really say they are not taking off their top. Even the girls I don’t want to show my legs. So how do you go around that?” [L56, FG 2, Lecturer 9]

“I think even if it’s in a small corner you and your best friend. Go and undress there and do it there. You know you don’t have to have the whole class as an audience. Then rather get the practical in smaller sections 2 or 3 at a time till you do feel comfortable with...” [L61, FG 2, Lecturer 1]

“10 students would watch everything that’s a bit exposing. So, I think structure is extremely important.” [L65, FG 2, Lecturer 3]

“you’re going to be a patient yourself you will actually know how frightening it is and realise that to tell someone to put a towel around them and they should be happy is not good enough. If you were the patient, you expected more. You expected more consideration.” [L70, FG 2, Lecturer 7]

Category 2.5. Ethical dilemmas

Ethical dilemmas like **finding something abnormal** with a student are something that happens every now and then. This must be taken care of in a policy e.g. who will take responsibility for the student, must he make an appointment with a general practitioner or his family physician. What happen when the student do not have a medical aid or the parents stay far from Bloemfontein? How will the student know whether he can wait another few weeks or need to see someone urgently?

“we don’t have a formal procedure but we’re always on the floor, so we always tell them if you pick up any abnormality and you’re not sure you come and ask us.” [L44, FG 2, Lecturer 9]

"The fact that you mention, what if you assess and you find something abnormal in a student there should be a procedure to follow." [L58, FG 2, Lecturer 3]

"... picks up an abnormality there should be clear statement that should you find any physical abnormality this is the person that you contact. And then that responsible person is going to do so that needs to be in every department." [L99, FG 2, Lecturer 9]

Category 2.6. Human rights

Protecting the **rights of everyone** is very important. When a student feels that his/her rights has been violated by practising PPE there need to be a procedure in place to follow to lodge a complaint.

"And human rights are always important. Human rights are always going to be number one in any form. Even if they sign 10 documents it's not going to... if they feel violated..." [L93, FG 2, Lecturer 3]

"just about human rights, number seven again, make me think is also something that I think of something our students also sign that if they do practise on each other they actually practice what they've been taught and not to deviate..." [L95, FG 2, Lecturer 7]

4.5.2.3 Theme 3: Student safety when practising PPE

One of the participants mentioned how needed a policy on PPE actually is because the current generation of students are far more educated on **legal matters** and **human rights** than before.

"... there's really a need for this. Because it's kind of amazing that we did not have problems up to now and I think that the generation students that comes in now are far more experienced and (everybody laughs) educated and legal stuff." [L100, FG 2, Lecturer 3]

Category 3.1. Supervision

Students sometimes try out physical examinations or skills on their friends or family members at home without any supervision. As practising on one another is actually an educational tool it may cause harm to the "patient" in these instances which may cause medico-legal hazards and must be avoided. It must be emphasised that supervision is needed when practising skills - especially at the beginning when students are still inexperienced.

“Even if they come in and practise when we’re not supervising and disclosing their own medical conditions.” [L70, FG 2, Lecturer 7]

“I believe there has to be rules that say this is not allowed to be practise on each other because we sometimes get that the students come back and say we practised this on each other and then it wasn’t supposed to be done. So, it’s not for an examination. It’s not for an education tool its actually then a medico legal hazard. I think it should be in a policy and stipulate that this is not allowed.” [L85, FG 2, Lecturer 4]

“... actually, practice what they’ve been taught and not to deviate from that so for instance not go and practice something on each other that they weren’t taught in class or shown how to do that and not to adapt that in any way.” [L95, FG 2, Lecturer 7]

Category 3.2. Types of examination

Students must be informed in advance about the type of examinations they will perform on one another. They need to know that **intimate examinations** e.g. breast examinations will not form part of PPE and that they will perform these types of examinations on manikins or in the clinical setting when they get there. They also need to know that if they need to examine in these areas, privacy will be ensured and it will be under supervision.

“... we need to specify what areas we will not be able to touch. So, I think that’s important for students. Otherwise they will always wonder when someone is close to my groin area or close to my breast.” [L79, FG 2, Lecturer 9]

“I think for physio. We actually work in that areas” [L82, FG 2, Lecturer 7]

4.5.2.4 Theme 4: Miscellaneous

Category 4.1. Gender

Participant nine mentioned that male students are not keen on practising on female students and then do not know how to approach the female body in an OSCE.

“... basically, just practise on a male. And then gets to the assessment there’s a female, and then he has to percuss the upper edge of the liver. And females have breasts, so you can clearly see the student is uncomfortable because he doesn’t know how to handle it.” [L36, FG 2, Lecturer 9]

In other disciplines gender has no effect and students practise on anyone. Male students are normally quicker to undress when a person is needed to demonstrate something.

"Sometimes when you're in a hurry the male will undress first ... easier where the girls first have to run to the bathroom to get covered up and everything. But in terms of the way students respond to male, female I don't see that. [L35, FG 2, Lecturer 7]

Category 4.2. Religion, culture, beliefs

The UFS as other institutions accept students from any religion. Some religious-affiliated students more so the females, do not volunteer to undress in front of the class for a demonstration.

"I'm not sure if there's a cultural issue from the other, if they're actually allowed to be touched or how much of their body they can expose. So, we usually don't ask them. or they never volunteer..." [L38, FG 2, Lecturer 9]

There must be some guidelines on how to handle situations like religious and cultural beliefs of students because they cannot be forced to participate in PPE, but still need to practise.

"... can be appraise in the correct way and the student won't lose out because of it but there are other ways that can be followed To have it in the policy to say with gender issues and religion issues I'm thinking of the Muslim culture now. So, if it in that way can be handled it's written in the policy like a grievance policy. This is the way it's actually like a pathway to apply and explain there. The reason for not participating." [L71, FG 2, Lecturer 4]

"... But I'm thinking of there should be something where students can disclose real concerns regarding those strong belief systems and if they feel strong about it they should disclose it." [L72, FG 2, Lecturer 7]

Participant number one disagreed on this and said that a student knows in advance what is expected from them.

"It just feels like then you should have chosen your profession better. It's my opinion." [L73, FG 2, Lecturer 1]

4.6 DISCUSSION OF THE FOCUS GROUPS RESULTS

Viewpoints voiced by the participants of the focus group interviews provided the researcher with insight in the ideas, problems and understanding the participants have regarding PPE. A short summary of issues raised during the focus groups will be discussed, but an in-depth discussion will follow in Chapter 5.

Student participants acknowledge the value of PPE to develop the necessary clinical skills and non-technical skills to comply with the core competencies required by the HPCSA (HPCSA 2014). Attributes such as increased confidence when communicating and examining patients and peers; how to act professionally when dealing with patients, colleagues and staff members; empathy, and respect are all invaluable skills needed by healthcare professionals. PPE contributes with building a trusting relationship where confidentiality between students prevail and teach them to work together in improving collaborative patient-centred care. This is important in the diverse South African context. Participants of the focus group with lecturers commented on the value of PPE to prepare students for their professional life (practising on a diverse group) and improve their communication skills and confidence levels when interacting with healthcare users.

Several participants of the focus groups with students are concerned about a lack of supervision which halt their progression in practising skills as they are still uncertain about the correctness of the technique. Another problem mentioned is inconsistency in teaching of a specific skill or examination technique between the various presenters of the same skill e.g. registrars from a clinical department presenting the same skill on different days. Social media and the lack of privacy and respect is another concern. Students feel exposed because fellow students take photos and videos and post it on social media without consent.

Many participants of the student focus group are of the opinion that participation in PPE must be voluntary and care must be taken not to penalise a person who does not want to participate. However, the participants of the lecturers' focus group strongly felt that participation in PPE must be compulsory as participation teach students empathy with and respect for healthcare users. When participating in PPE, the student can experience the self-consciousness and embarrassment patients experience when privacy is not ensured and will remember that for future reference.

The lecturer focus group participants were concerned with the language barrier that sometimes prevent students from performing optimally and also that caution must be taken not to teach students only the steps of a certain skill without integrating the knowledge. Peer-assisted learning is positive, but sometimes problematic as students teach fellow students incorrectly.

The focus groups interviews with students and lecturers provided almost identical results. Both groups feel PPE have a lot of value and that students benefit greatly from

participating. Participants learn communication skills as well as how to interact on a professional level added to the benefit of learning the practical skill.

The outstanding difference between the groups was that students felt participating should be voluntary, while lecturers think it needs to be compulsory if the student wants to study in the field of health sciences.

4.7 CONCLUSION

In this chapter, the results of the focus group interviews were presented. The professional profile of the participants and researcher were discussed followed by a thematic presentation of the qualitative data including relevant responses of participants to support the identified themes and categories.

In chapter 5, entitled **Discussion of results of focus group interviews**, the researcher will discuss the findings of the focus group interviews together with the current literature to make recommendations regarding guidelines for the use of PPE at the FoHS at the UFS.

CHAPTER 5

DISCUSSION OF RESULTS OF FOCUSGROUP INTERVIEWS

5.1. INTRODUCTION

In this chapter, the results of the focus group interviews will be discussed (cf. Chapter 4) and the information as portrayed in the literature review in Chapter 2. The information will provide a guide for identification of content to be included in a PPE policy.

TABLE 5.1. COMBINED THEMES AND CATEGORIES OF THE CONDUCTED FOCUS GROUP INTERVIEWS (Compiled by the researcher, Hattingh 2016)

Table expands over three pages

THEMES	CATEGORIES	SUBCATEGORIES	
		Students	Lecturers
Value of PPE	Benefit	Supports the use of PPE in clinical skills training	
	Advantages		Prepare students for clinical work
		Improves student self confidence	
		Improves relationships between students	
		Improves clinical competency	
		Peer assisted learning	
		Improves professionalism and communication skills among a diverse group	
		Teach students empathy	
		Develops tactile skills	
			Practise on a diverse group of people
	Disadvantages	Lack of supervision	
		Students feel exposed	
		Forms groups that want to work together	
		Regards it as artificial	
		Inconsistency on the side of presenters on skills presentation	

THEMES	CATEGORIES	SUBCATEGORIES	
		Students	Lecturers
		Communication gap between students and patient	
			Practise only steps of skills
			Different Capabilities
			Language problem
Ethical considerations	Consent	More information and time for discussion	
		Voluntary	
			Consent for participating in PPE and videos
	Respect, privacy and confidentiality	Respect, privacy and confidentiality	
		Feel safe when participating	
			Body image problems
	Ethical dilemmas	Social media	
	Human rights		Rights of students, patients etc.
Student safety	Supervision	Lack of supervision	
		Need more guidance	
		Consistency in information provided	
	Disabled students	Physical problem	
	Physical dilemmas	Harm a fellow student	
		Discover an abnormality in a student	
	Types of physical examination	No invasive/ intimate examinations	
	Indemnity		Indemnity
	Voluntary/compulsory		Compulsory

THEMES	CATEGORIES	SUBCATEGORIES	
		Students	Lecturers
Student concerns	Gender	Preferably practise on both genders	
	Religion, Culture, Race	Guidelines not to penalise any non-participating student	
	Dress code	Dress code	
	Choice of partner	Choose own partner	
Miscellaneous	Limited practising time	Time restraints	
		Prepare in advance	
		Updated Videos	

The discussion will follow according to the identified themes and categories the sub-categories will be highlighted in the text.

5.2. VALUE OF PARTICIPATING IN PPE

Universities globally, such as the School of Medicine of the University of Queensland, Australia and the Faculty of Medical & Health Sciences at the University of Auckland, New Zealand and many more, make use of PPE in all the undergraduate programmes of the different schools. Although students mostly perform non-invasive procedures e.g. examination of the abdomen or taking the blood pressure of a fellow student, in some countries like Australia, the UK, and the Netherlands, a formal tertiary qualification in pelvic floor physiotherapy is taught, where students are exposed to PPE of sensitive areas such as the pelvic floor (Delany & Frawley 2012:33-39).

In South Africa, most of the universities make use of PPE. The three schools of the FoHS at the UFS also make use of PPE in clinical skills training. Generally, only non-invasive procedures are practised using PPE, but in the department of optometry in the School of Allied Health professions at the UFS it is required from students to dilate each other's eyes for the purpose of training. This could be considered as invasive because medication is used to anaesthetise the cornea and dilate the pupils and there is a potential of harm to fellow students, for example, causing a corneal aberration.

5.2.1 Benefit of participating in PPE

Students and lecturers of the FoHS, UFS are outspoken in their support of participation in PPE as it assists them with their clinical practise and provided a safe place to learn

the necessary skills (cf. 4.5.1.1 Category 1.1). Participants of the focus group with lecturers also verbalise the importance of PPE as an educational tool and also to prepare students for clinical practice (cf. 4.5.2.1 Category 1.1). One of the participants of the focus group with lecturers said: *“I think it’s an excellent, excellent idea. And it should be used extensively that’s my opinion.”* [L15, FG 2, Lecturer5]

Examination of intimate body areas (GRB examinations) is not part of the PPE practised at the UFS as intimate and invasive examinations and procedures are practised on manikins or actual patients in the clinical setting. *“...any intimate examinations that we learn we use models. We don’t actually practise on real people. So, I think that problem is avoided.”* [SE35, FG 3, Medical 6]

Literature indicate students are more willing to participate in PPE when they understand the importance thereof (Chen *et al.* 2011:e528). In general, students are more willing to participate in PPE when it does not involve the intimate body areas e.g. female chest, inguinal area, rectum or genitals of their peers (Outram & Nair 2008:24).

The researcher has experience of the skills training in the School of Medicine and the School of Nursing. Both schools use PPE as educational tool; the School of Nursing from the first year of training and the School of Medicine from the second year. Intimate body areas do not form part of the training where PPE is being used in the two schools and from personal communication also not in the School for Allied Health Professions. The value of using PPE in clinical skills training cannot be underestimated. The researcher, from personal experience, can see the students’ development from the beginning of their course.

5.2.2 Advantage of participating in PPE

PPE contributes to the **competence level** of students and also assist in **boosting their self-confidence** so that they can confidently apply their knowledge, skills and attitudes in the profession they are being trained for (cf. 4.5.1.1 Category 1.2; cf. 4.5.2.1 Category 1.2). *“... not about comfortableness or the level of comfortableness, but the level of competency that it gives you”* [SE41, FG 3, Physio 1].

PPE provides a safe environment where students can practise new skills without the fear of harming a patient or being laughed at. This is in accordance with the article of Koehler

et al. (2014: online) stating that PPE provides a safe and trusted environment where students' errors are not laughed at, but corrected in a safe milieu.

Chang and Power (2000:384-389) and Braunack-Mayer (2001:681-686) mentioned that PPE teaches students **respect, dignity and empathy** for their patients. While participating in PPE, students can experience the feelings of anxiety and worthlessness the absence of dignity can cause a patient. (cf. Section 2.5). With the current emphasis on human and patient rights (cf. Section 2.5), it is extremely important to always respect and protect the dignity of patients.

In all three focus groups, the protection of patient rights, privacy and empathy for patients emerged as one of the advantages of participating in PPE. *"you're going to be a patient yourself you will actually know how frightening it is and realise that to tell someone to put a towel around them and they should be happy is not good enough. If you were the patient, you expected more. You expected more consideration."* [L70, FG 2, Lecturer 7] and *"...you feel what the patient will feel so you can understand what the patient goes through"* [SA21, FG 1, Optom 1]

Participating in PPE is one of the best ways students will be able to learn characteristics such as dignity and respect for patients as this is not something a person can be taught in theory. Another method could be to hire SP's, but that has financial implications for the specific school or department. The practical application of having respect for the patient, protecting the patient's privacy and having empathy with another person is all things that students can only learn by applying it practically and the best and safest way is by doing it in a safe and non-threatening environment on peers.

Communication skills is one of the most important skills all health professionals need. Excellent communication skills, the ability to interact professionally and to gain the trust of the patients are all skills that can only be acquired with practical training sessions (Chinnah *et al.* 2011:e31). According to the Calgary-Cambridge approach of building a positive doctor-patient relationship (Pounds 2010:145) "acceptance, empathy and support" are important aspects to form an affiliation of understanding between the patient and doctor. According to the model "empathy" is needed as part of communication in this model as it helps in building the trusting relationship that is needed in a patient-centred consultation.

The students mentioned PPE teach them to have **empathy** with their patients. “...*you feel what the patient will feel so you can understand what the patient goes through*” [SA21, FG 1, Optom 1]. This is one of the aspects the Calgary-Cambridge approach recognise and it is also an important aspect of communication as patients generally feel more relaxed with an empathic person and will openly discuss his problems, which is of assistance when taking a complete history and making a better diagnosis (Pounds 2010:145).

The participants of the focus group interviews agreed that PPE assist with acting professionally at all times. “...*act in a professional manner at all times*” [SA59, FG 1, OT 1]

Good communication skills are important and often the students need to improve on these skills. This is especially applicable to the training of medical students (Ranjan *et al.* 2015:JE01, JE04), but also for healthcare professionals in general as they need to be able to build a trust relationship with their patients.

Another important fact that was mentioned in the focus group interviews was the importance of students learning from one another. **Peer assisted learning** helps students to correct mistakes while practising. The importance of immediate feedback from peers is discussed in a couple of studies (Chen *et al.* 2011: e528-e540; Outram & Nair 2008:274; Wearn & Bhoopatkar 2006:958). This can be both positive and negative as one of the participants in the second focus group mentioned that students sometimes teach each other wrongly and then the lecturer struggle to correct this.

“...*it’s nice to also to practice the techniques on each other because if you do it wrong your fellow students can help you and correct you.*” [SA12, FG 1, Physio 1]

5.2.3 Disadvantage of participating in PPE

Koehler *et al.* (2014:online) mentioned the fact that some students regard participating in **PPE as artificial** considering the fact that their peers anticipate the next move when practising on them unlike a real patient that needs to be instructed what to do. Some of the students in the focus group interviews mentioned the same problem. “... *actually, your friend is just like positioning because they know the expectation. ... You just kind of touching their leg and they oh I’m sorry like they actually doing it for you.*” [SA24, FG 1, OT 1] (cf. Section 4.5.1.1. Category 1.3). This may hamper the educational value a student would receive from the particular session, but good preparation of the students

regarding the outcomes of the specific session may prevent this. This aspect could be addressed by using simulated patients (SP's), but it can have financial implications, because SP's have to be paid.

Another disadvantage students and lecturer participants of the focus group interviews mentioned was the problem with staying focused on the task when the lecturer was not in the room. **Lack of supervision** also has an influence on the quality of teaching the students receive. Students will many times make jokes the moment the lecturer leave the room and forget the purpose of the session namely to practise a specific skill. From the second focus group (lecturers), it was deducted that students learn the steps of a technique or examination but not always understand the reason behind the practise. The students just follow the list (tick sheet) and want to leave. This is something the researcher had experienced often and although the value of the session is explained to them it is as if they forget why they are there and just want to finish as quickly as possible and go home.

This situation was also described in Koehler *et al.* (2014:online) where it is described that students sometimes use medical equipment deliberately wrong or even physically or verbally abuse a fellow student when there is a lack of supervision.

5.3. ETHICAL CONSIDERATION WHEN PARTICIPATING IN PPE

Students and lecturers have many ethical issues regarding participating in PPE. Braunack-Mayer (2001:681-686) discuss some of the issues such as consent and duty of care.

5.3.1 Consent when participating in PPE

Consent is not the mere signing of a paper to give permission to do something. Consent must always be signed in full knowledge of the risks, benefits, possible consequences and alternatives that are available (Appelbaum 2007:1834).

Consent was the first thing that came to mind in all three focus groups when participants were asked what needs to be included in a PPE policy, which is an indication of how important this aspect is. Delaney and Frawley (2011:539) state that students need more information about the benefits and risks associated with PPE to take an informed decision about participating in PPE. Power (2011:539) recognises the fact that students

need information before informed consent can be given. Outram and Nair (2008:275) emphasise the importance of a written, clear policy on PPE participation and the acquisition of informed consent.

Students from the department of physiotherapy and some of the other departments and Schools in the FoHS also have consent forms the students sign, but there is not enough information accompanying it to qualify it as informed consent. Students criticise this process because they need to sign and hand back the forms within the same session. The students need time to study the document and clarify all discrepancies before the consent can be documented as informed consent. A way to make the information available to the students could be to put the information leaflet accompanying the consent form on Blackboard® or supply students with hard copies to take home. The researcher as part of the team presenting clinical skills for semester four students of the School of Medicine knows that students do not have an idea of what is included in PPE. An information letter together with the consent form will assist the students in signing informed consent. Informed consent is mandatory according to the National Health Act (cf. section 2.8.4) and also the guidelines for good practice of the HPCSA before any procedure or practise.

5.3.2 Indemnity when participating in PPE

The department of Physiotherapy from the School for Allied Health Professions at the UFS has an indemnity form their students sign before participating in PPE. According to the focus group interview with lecturers, the indemnity form was introduced to protect the department when students accidentally hurt one another or themselves when participating in PPE. *“We have added consent forms as well as indemnity forms. If the student does overstretch a muscle...”* [L50, FG 2, Lecturer 7].

In South Africa, litigation against healthcare professionals were relatively low at first, but it is on the increase. People (including students) become more aware of their rights and risk management plans are needed to protect the university, the employees involved in the module and the students. Students are not yet skilled practitioners and can accidentally harm a fellow student. This is another reason informed consent is so important (Klinck 2015: PowerPoint presentation)

The researcher could not find confirmation of indemnity with participation in PPE in the literature but regards indemnity as valuable because of the inclination of some of the

students to play when they are supposed to practise their skills (cf. section 4.5.1.3). It is important to note that indemnity will not completely absolve the institution or educators from litigation as it is still the responsible lecturer's duty to ensure all possible precautions were taken to prevent injury or loss for participants.

5.3.3 Voluntary/compulsory participating in PPE

Student participants of the focus group interviews are of the opinion that participation in PPE must be voluntary and there must be a system in place if students do not want to participate without penalization. Outram and Nair (2008:275) support this viewpoint and add that students must be able to choose their own partners to practise with and it must only be for non-intimate areas.

Participants of the focus group with lecturers are more of the opinion that participation must be compulsory for students if they want to study any healthcare-related course. Students must receive the information beforehand so that they can take an informed decision whether they want to continue with the course.

"... they should know that if they are in the course. (This is what's – number 1) this is what's going to happen to them. So, if they then start nagging and objecting on that and that at that level then they should not be in the course..." [L54, FG 2, Lecturer 5]

The researcher is of the opinion that all students need to participate in PPE as it assists them with not only with the physical skills of performing the different procedures, but also with skills such as good communication, professionalism etc. When a student for some reason cannot participate in PPE, the student must arrange for a person to practise on as it will be unfair to other students when a particular student do not want to participate in PPE, but wants to practise on their peers. It is also important that the students who are examined must get enough opportunity to practise on other students, because it could happen that their opportunities to perform the examination can be limited if not managed well by the supervisor.

5.3.4 Respect, privacy and confidentiality in PPE

Delany and Frawley (2012:33-39) mention the importance of respect for the students from the side of the educators. Students need to understand the difference of a social relationship with friends and their professional relationship with a patient. Braunack-Mayer (2001:681-686) regards PPE as a good way to teach students to treat people with

respect. Koehler *et al.* (2014:online) address the students' concern that PPE is not always practised in a respectful and confidential environment as class activities are sometimes placed on social media. Wearn and Bhoopatkar (2006:957-963) postulate that a PPE policy must include concerns such as confidentiality. Chen *et al.* (2011:e533) report that students preferred small groups of four to six students with some kind of privacy arrangement such as a curtain or a screen.

Participants from the focus group interviews have raised the same concern. According to the student participants, there are no confidentiality among them. *"Is there confidentiality between students? because when we are practicing on each other there is no confidentiality?"* [SA93, FG 1, Medical 4]. Participants want to feel safe when practising PPE without the fear of jokes or remarks. It was also mentioned from the educators' side that when students experience the embarrassment of being examined without privacy being ensured, they will remember it in future when they need to examine patients. *"you're going to be a patient yourself you will actually know how frightening it is and realise that to tell someone to put a towel around them and they should be happy is not good enough. If you were the patient, you expected more. You expected more consideration."* [L70, FG 2, Lecturer 7]

From experience, the researcher knows that respect, privacy and confidentiality is not very high on the agenda of students. Although privacy and confidentiality on social media is emphasised to students, it is common knowledge that individuals often post on social media. They forget or just do not think about the consequences of putting an image of a patient or fellow student on social media, especially if they did not ask permission from the person. They must keep in mind the accountability and responsibility for all their actions always stay a fundamental part of their profession and personally. Healthcare professionals are accountable to the patients, their colleagues, the public, their profession, employer and their respective regulatory bodies such as the SANC and the HPCSA (Pera & van Tonder 2015:87,88). This accountability and responsibility in relation to professional conduct is the reason students need to constantly keep in mind patients' rights to confidentiality and privacy and their responsibility to protect it. The researcher reasons PPE is a very good way to teach and enforce these concepts.

5.3.5 Ethical dilemmas when participating in PPE

Some students have a problem undressing in front of others because of a negative **body image**. It was verbalised in the focus groups that it is mostly the male students that will volunteer to act as patient for a demonstration. It is not only intimate body areas that pose a problem, it can be something such as undressing to practise abdominal examination. One of the participants suggested smaller groups could be used if a student do not want to participate in PPE in the normal class setting to ensure more privacy.

Raubenheimer (2013:99) conducted a study with students from the School of Medicine at the UFS regarding body image and found that students' perception of their body (both male and female) has an influence on undressing in front of others. This is in accordance with the results of a study published by Rees (2007:803) that found that especially females are susceptible to a negative self-image if they do not comply with the required slenderness that is prescribed by the world view. Reid *et al.* (2012:61) also states that students are more scared to be embarrassed about their bodies in front of others than any cultural or religious problems.

The researcher feels the advantages of using PPE far outweighs the problems and a student who feels uncomfortable to undress in front of the class may choose his/her own partner and practise the skill in a separate, private location. It will create more problems regarding the practical presentation of skills if students are allowed to not practise on one another

Another problem that was highlighted by the focus group participants is the problem of **duty of care**. When someone find an abnormality in a fellow student, there need to be a process in place to follow. Outram and Nair (2008:274) refer to the protocol that is in place at the medical school of the University of Auckland, New Zealand. According to their specific protocol, the onus is on the student to follow up on the possible problem.

Focus group two with the lecturers mentioned the importance of **human rights** in PPE. A student who feels his human rights had been violated, must have a procedure or process in place to lodge a complaint. This was not something that had been addressed in the literature as pertaining to PPE *per se*, although consent and whether students are forced to participate will mean an infringement of the rights of the students.

5.4. STUDENT SAFETY WHEN PARTICIPATING IN PPE

The importance of a safe environment when practising PPE is an imperative to be addressed. Students need to be briefed about the risks involved when practising a specific examination or skill on one another. This forms part of obtaining informed consent and although students sign consent at the beginning of the year or module, it will be best practice to brief students before each session on the risks, benefits and needs for performing a specific skill or examination on a fellow student and eventually on a patient.

5.4.1 Supervision in PPE

Chen *et al.* (2011:e533) indicate in a study that increased educator intervention changed the attitudes of students towards PPE. This is consistent with the views of the participants of the focus group interviews who emphasised the importance of supervision when practising skills. Students require more guidance when practising skills and felt the different lecturers overseeing the sessions must receive training prior to a session in order that all of them provide the same information to the students.

The researcher understands the concerns of the students and suggests that the ratio of supervisor/ student must be re-assessed. The ratio for supervisor/student varies with the different disciplines, but the American Heart Association, who provides training in amongst other basic life support (BLS) requires a supervisor/student ratio of one to six for their courses and a ratio of one to ten is needed for clinical skills training in nursing (Snider, Seffinger, Ferrill & Gish 2012:182).

5.4.2 Students with disabilities practising PPE

Participants of the third focus group mentioned the importance of accommodating and encouraging students with disabilities when practising skills. Disabilities includes physical disabilities such as cerebral palsy and emotional disabilities such as depression. The researcher suggests more should be done to accommodate students with disabilities in the healthcare professions. Many students just need extra encouragement and time during examinations and practises to complete their studies. These students also need accompaniment in the clinical setting as they are slower than others with clinical work. With a little understanding and encouragement, they can make a success of their studies.

5.4.3 Physical dilemmas in PPE

It is possible that students can accidentally harm a fellow student while practising. Koehler *et al.* (2014:online) discussed the concern that many students have because medical equipment is not always used as it should be or there is even verbal, emotional or sexual abuse of students while participating in PPE. Students from the Flinders University and the Universities of Exeter, Plymouth, Auckland and Sydney (Gibson 2009:205-206) mentioned they are concerned that they will hurt a fellow student, but still regard PPE as better than to practise on a real patient.

From the perspective of a lecturer, the researcher had not yet experienced any of these physical problems when practising PPE. This may be more of a concern when intimate body areas are part of the PPE programme. No students complained about this as far as the researcher could establish.

A problem that may arise and was discussed in the focus groups is the situation where a student refuses to be examined or to examine a student from a different race, culture or the situation triggers past experiences in the life of the student. As a focus group participant said: *"We don't live in a perfect world and don't know what happened in somebody else's life prior to studying in healthcare"* [SA 87, FG 1, Medical 4]. Some participants supported this view while others were of the opinion that it will create an opportunity for racism in the classroom and an easy way out if a student did not want to participate.

The researcher is of the view that students must feel safe in the skills unit and a trusting relationship must be established with the lecturer presenting clinical skills in order to discuss any problems. A valid problem must be dealt with in private without embarrassing the student and the student must be assisted without alerting the whole class to the problem. Arrangements can be made to accommodate the student by letting him/her choose his/her partner and the two of them practise in a separate room in privacy. This is one of the reasons the orientation session is so important. Participants also mentioned that some of the lecturers are not "approachable". *"... not comfortable to come ... and I don't agree with this. Like I said sometimes they're not approachable"* [SE99, FG3, Nursing 4]. This is a concern as lecturers, especially in a practical module, must be available and approachable. Students must have the confidence to discuss problems if they need to.

5.4.4 Types of examination used in PPE

Focus group participants were comfortable with the types of examinations practised in PPE sessions during clinical skills training at the UFS. Exposure of the thorax and abdomen are some of the most invasive practises students need to do. Optometry students from the School for Allied Health Professions install anaesthetic or mydriatic eye drops in one another's eyes for the purpose of training. This is the most invasive PPE practise at the FoHS of the UFS. Students are content with it and as one of the lecturers said, it teaches students soft skills needed for their future practise as they have a better understanding of the experience of a patient and is able to explain procedures to patients in a better way.

Literature corresponds with these findings when it is reported that very few students are willing to participate in PPE when it involves examinations such as breast, genital and rectal examinations (Outram & Nair 2008:24; Reid *et al.* 2012:55).

The fact that it was recommended for educators to remember their position of power relative to those of the student (Delany & Frawley 2012:33-39) is of importance to the researcher. This is a fact that educators need endless reminding of as it is easy to forget and students sometimes feel so overwhelmed by the PPE situation and peer pressure that they participate although it is against their will. Informed consent is important and students must be knowledgeable from the beginning of what is included in PPE. Invasive examinations and procedures need more preparation and alternatives such as standardised patients must be available if students refuse to participate.

5.5. STUDENT CONCERNS WHEN PARTICIPATING IN PPE

Participants of the focus group interviews had some concerns when participating in PPE. The classroom of today consists of a heterogeneous group of people, which is very good in the way it teaches students to work with a diverse group of people/patients, but there may be some students who have problems in such a set up.

5.5.1 Gender concerns when participating in PPE

Participants of the focus group interviews did not have a problem regarding gender when participating in PPE. Students from the School of Medicine, Schools for Allied Health Professions and School of Nursing said that they did not have a problem practising on

students from an opposite gender. The reason may again be the fact that only non-invasive procedures are practised in the context of the FoHS at the UFS.

A problem identified and mentioned in all three groups related to specifically medical students, was the fact students practise mainly on males, but in the practical examination they may have a female to examine and then they do not know how to handle the situation. For this reason, it is good that students are allowed to do PPE on students from an opposite gender, but it must be emphasised that there should be proper supervision at all times.

Literature indicates that the majority of students feel more comfortable practising on their peers when they are from the same gender (Chang & Power 2000:384-389). Rees *et al.* (2009a:921-927) report female students are scared of sexual harassment from male students while male students were scared of being accused of abusing their peers. Both male and female students felt a chaperone is needed when female students are examined by male students. Participants of the focus group interviews shared this view.

The researcher is of the view that separate rooms for male and female students are advisable - especially in the beginning when students just start practising the basic examinations. As they progress, it may probably be more valuable if they could practise all examinations on both genders. It need not be peers, it could be SPs or even patients, but it is important for the progression of the students to have experience in examining both genders. The School for Allied Health Professions and School of Nursing have traditionally more female students and this results in students practicing mainly on female students due to the fact that there are no male students available.

5.5.2 Religion and culture concerns when participating in PPE

Currently at the UFS there is not a problem regarding religion or culture when practising clinical skills. Students from different religions or culture normally group together and practise on one another in a separate room. The UFS as all universities in South Africa accept students from the different races, cultures and religious groups. Religious and cultural differences may have to be addressed to make students and lecturers more aware of differences in religion, customs and culture. A session informing students about the different religions, customs and cultures will have a positive impact on their respect for each other, ethical behaviour and should transfer to the clinical areas and with their patient interactions as well.

Braunack-Mayer (2001:685) supports the principle of educating students and lecturers on cultural differences and how to be sensitive to participants while participating in PPE. Alternatives to PPE must be available on request and both students and lecturers must know what options are available and how to access it. Outram and Nair (2008:274) noted that ethnicity and culture play a definite role while students practise PPE with especially students from Middle Eastern countries not so willing to partake in PPE. O'Neill *et al.* (1998:online) discuss the fact that Muslim women refuse to be examined by peers even in the presence of a chaperone.

5.5.3 Dress code when participating in PPE

The general dress code of the School of Medicine require from students to attend classes and clinical areas dressed professionally with their white coats, long trousers and wearing socks and shoes. The female students also need to be dressed according to strictly prescribed dress code. This can cause problems when students have to participate in PPE. It is expected from students to bring an extra pair of shorts and t-shirt to wear during the PPE sessions. Students from the Department of Physiotherapy undress until they are in their underwear and must bring along an extra pair of clothes fit to practise in. If a student accidentally forgets to bring his extra clothes, that student must make use of towels to cover himself which can be very uncomfortable for the student. A solution will be to provide lockers to the students where they can keep an extra set of clothes for when it is needed.

According to a study at the Peninsula Medical School (PMS) in the United Kingdom (Chinnah *et al.* 2011:e27-e36), students who participated in PPE find it easier to communicate and examine a patient that is half-clothed than undressed. Students struggle sometimes with unsuitable feelings such as disgust or arousal when in the presence of an undressed person and PPE assists them in developing their professional behaviour (Chinnah *et al.* 2011:e27-e36).

The dress code is important to give students the perception of reality when practising on their peers or SP's. To be "in uniform" whether it is the nurses uniform or the white coat of medical students or the allied health professions' particular uniform, it provides them with the perception that this practical session is real and it is easier to distance yourself from your peer, act professionally and see him/her as your patient.

5.5.4 Choice of partner when participating in PPE

Participation in PPE should always be voluntarily and students must be able to choose their own partner (Outram & Nair 2008:275; Power & Center 2005:337-343). Practising a new skill must preferably be in a small group setting between peers where the student feels safe.

One of the students in the first focus group interview mentioned that it will be good to be paired with a specific partner to practise with for the duration of the module (cf. section 4.5.1.4, Category 4.4). This might be a good idea when students are still in the beginning of their skills training or want to practise skills independently, but eventually they need to get into contact with a diversity of persons to prepare them for the clinical areas. Practising PPE with different people prepare the students for patients with various body types.

5.6. MISCELLANEOUS

Participants of the student focus group interviews are concerned with the **limited time for practising** skills during class. They feel students need to receive the information on blackboard and prepare in advance so that when they are in class the whole time can be devoted to practising the specific skill. On entering the class, an evaluation of the technique instead of a written class test must be used as assessment tool. Students want the classes to be more interactive and videos and the PowerPoint presentation must be watched at home with only a demonstration of the skill and then enough time to practise with supervision from the lecturers. The concept of a flipped classroom is thus suggested by the students and this is a concept that should be looked into for implementation into the modules.

All videos used in demonstrations need to be up to date with current information. If there is any discrepancy regarding a video or presentation, the content of the video must be aligned with the outcomes and the prescribed text books and learning material. This must be done to prevent students from being penalised by external examiners.

Prepared students will save a lot of unnecessary explanation time. Students will come with questions regarding the day's work and the rest of the time can then be used to assist students with practising the correct examination or technique. Each student can be evaluated individually before leaving the unit to ensure they know how to perform the

examination or skill. There will also be enough time to help the student who learn at a slower pace to perform the skills.

5.7. PPE POLICY RECOMMENDATIONS

From the literature and the results of the focus group interviews, the following recommendations regarding the aspects that should be included in a PPE policy can be made.

5.7.1 Premises for PPE policy

A policy ensures that specific matters or problems will always be dealt with in the same way. It ensures uniformity, continuity and regulate the actions of all involved. A policy provides the legal support for decision-making and ensures that different role-players will take the same action when faced with similar problems. This ensures a specific standard on the action of role players taking into consideration that setting the standard requires from all role-players to be at a specific level of experience with appropriate qualifications (Bezuidenhout 2015:49-50).

When formulating a policy, management must take into account the requirements of the institution and employees, as well as consider the practises of similar organisations. The policy serves as a performance standard and ensures that temporary problems become permanent and also to prevent repeatedly addressing the same problems as all role players are aware of what is expected from them (Bezuidenhout 2015:51).

Kelleher and Schafer (2014:826-827) explain that the introduction of a PPE policy at the University of Queensland, Australia led to discussions and finding solutions for existing problems when PPE was used. This policy included aspects recommended by Koehler and McMenamin (2014:431-432) such as consent, general information on PPE and ways not to penalise students that choose not to participate in PPE (cf. section 2.6.1).

O'Neill *et al.* (1998:433-437), Outram and Nair (2008:274-276), Braunack-Mayer (2001:681-686) state the importance of a policy on PPE that includes aspects such as informed consent, confidentiality, choice of partner, dress code and alternatives to the participation of PPE. Ethical, cultural and professional problems such as gender, religion, accidental harm of fellow students should be addressed.

5.7.2 Points of departure for PPE policy

All three schools within the Faculty of Health Sciences at the UFS make use of PPE to train clinical skills, but no formal policy is available. Each of the FoHS's schools or individual departments has their own form of blanket consent in place that is typically signed at the beginning of their studies or at the beginning of each academic year, but the existence of a formal informed consent document on the participation of PPE could not be found.

With litigation against healthcare professionals on the rise (Klinck 2015:PowerPoint presentation), the emphasis on human rights and ethical behaviour in our society and the increased diverse student population, a policy that ensures consistency in the day-to-day management and execution of PPE practices is imperative for the smooth running of the clinical skills departments of the Faculty of Health Sciences. A policy will ensure that the standard of clinical skills training and problems emanating from participating in PPE are treated uniformly throughout the Faculty without any person or department feeling victimised or discriminated at.

An important aspect to always keep in mind is that not all students can constantly be treated in the same way although educators would want guidelines or a policy that covers all the possible scenarios. When a student refuses to participate in PPE and discloses that the situation triggers past negative experiences, it is the duty of the educator to counsel the student and try to find a solution that suits both parties.

It is better for the student to experience negative emotions and situations in the safety of the classroom where they will be able to trust their peers and ask for assistance than to be embarrassed in front of many peers and the public in the clinical areas.

5.7.3 Role players in a PPE policy

In Figure 5.1 is a summary of the role players involved in the establishment of a PPE policy for the FoHS.

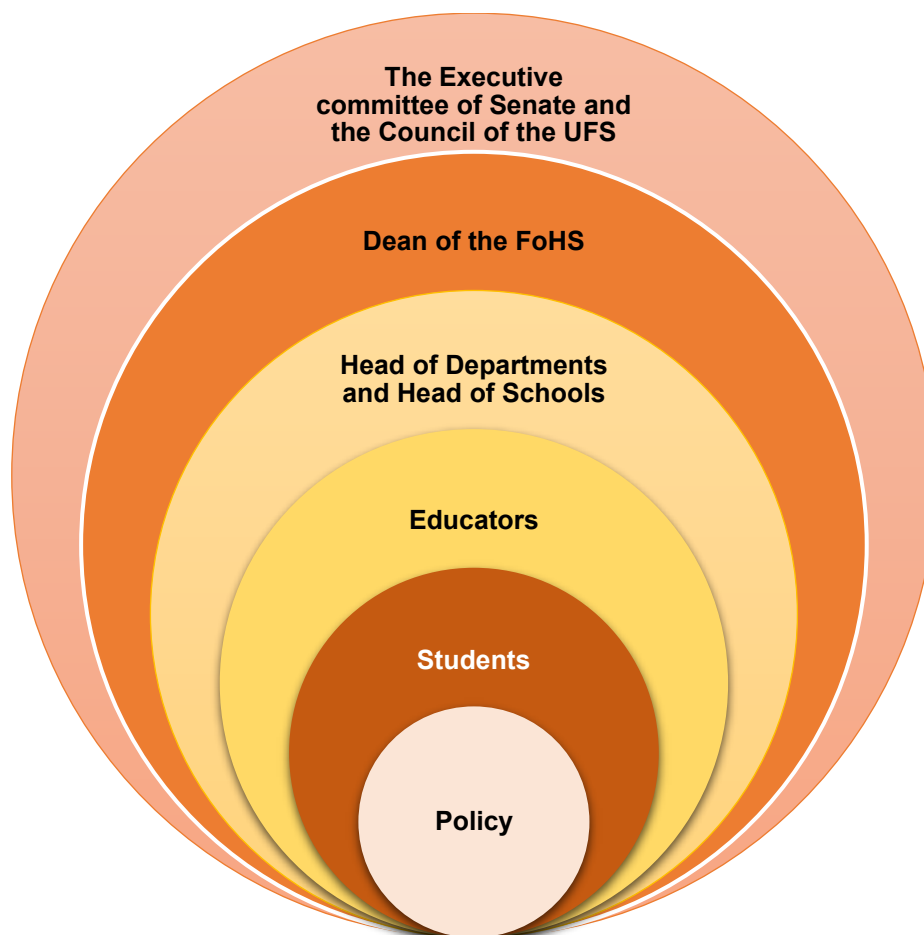


FIGURE 5.1. ROLE-PLAYERS IN A PPE POLICY FOR THE FOHS AT THE UFS
[Designed by the researcher, Hattingh 2016]

PPE Policy

The policy on participation of students in PPE will be central to the use of PPE in the skills units of the different Schools within the FoHS. A policy will provide the rules and regulations to provide a positive learning experience for students of the FoHS when practicing their skills on one another. It will ensure students and educators know how to conduct themselves and uniformly deal with situations and individuals when using PPE.

The students

They are participating in PPE and need to develop certain competencies in fulfilling the requirements for registrations as laid down by the regulating bodies namely the HPCSA and the South African Nursing Council (SANC).

Educators

Lecturers presenting modules that involve practising PPE have the responsibility to ensure that a safe environment is created where students feel safe and protected to practise without fear of being exploited.

Head of Departments/ Head of Schools

They form part of the authoritative or governing body of the Faculty of Health Sciences. They must ensure all Faculty and specific School rules and regulations are adhered to when using PPE in a module. Problems originating from the use PPE in the module will be referred to the Head of Department or the Head of the respective School for finding a solution.

The Dean of the Faculty of Health Sciences

This position manages and oversees the implementing of all university policies and procedures as well as the recommendations and requirements of the different regulating bodies namely the HPCSA and the SANC. The Dean of the Faculty of Health Sciences in collaboration with the executive committees of the different schools can recommend and implement new policies and procedures when needed after it was approved by the executive committee of the Senate and Council of the university.

The Executive committee of Senate and the Council of the UFS

The Executive Committee of the Senate in conjunction with the Senate and Council of the UFS, is responsible for the strategic management of the institution. A proposed policy change or introduction of a new policy will be approved by the Senate and Council of the UFS before it is implemented.

5.7.4 Recommendations for a PPE policy

There are differences in the requirements of the different Schools within the FoHS and it would be recommended that a generic PPE policy should be drafted with appendices to be used in the different departments and schools. The following aspects were recommended by the participants of the focus group interviews as important aspects that need to be included in a PPE policy:

- Informed consent is very important. Students must know in advance what they can expect of PPE and what will be expected of them before they will be able to take a decision on participation.
- Voluntary or compulsory. Students must be able to trust the educators so that they can disclose to them, if for some reason, they cannot perform a certain examination or skill on a peer.
- Respect, privacy and confidentiality. Physical exposure of fellow students must be limited and privacy ensured as far as possible. It is important to include guidelines for the use of social media and privacy.
- Types of examinations and skills included in PPE practise. Only non-invasive examinations and skills. What are the requirements for practising the different skills and examinations?
- Appropriate supervision. Supervision to ensure students practise the technique of the examination or skill correctly, but also to ensure that students practise in the allocated time and not waste time.
- How to handle religious, gender and cultural differences. There must be a framework or policy in place to prevent discrimination and victimisation of students from lecturers and fellow students when they choose not to participate in PPE.
- Duty of care when an abnormality is discovered in a PPE participant. The steps that need to be followed when discovering an abnormality in a student.

Dress code of the students. It is easier to participate in practising certain examinations and skills when wearing comfortable clothing. To act professionally comes more natural when in uniform. Students may wear uniforms to class but bring along comfortable clothes to change into when they are the patient.

The participants of the focus groups with students suggested that videos and presentations being uploaded onto blackboard to increase practising time in class. What they actually recommend is to flip the classroom (cf. section 4.5.1.1).

Briefing of students on the outcomes of the session might be of value. This will remind them why they need to practise on one another and what the educator wants to achieve. Debriefing of students at the end of each class will also have value as transfer of learning take place during debriefing. Debriefing helps students to integrate knowledge and skills which brings about permanent behaviour changes and discover their gaps in knowledge, preventing them from just following a tick list to complete their practising and then leave the room. Debriefing forms an integral part of Kolb's learning cycle (cf. Figure 2.2), but is a teaching strategy in its own where the cognitive, affective and psychomotor components integrate. This is essential to grow professionally as well as personally (Cantrell 2008:e 19-e20).

Student focus group two discussed the importance of assisting students with disabilities. This is applicable to practical modules as it is in these modules that such students need more assistance and time when practising. According to the White Paper on the rights of people with disabilities (RSA Department of Social Development 2015:83), educational institutions must take reasonable and practicable steps to accommodate students with disabilities on an equal basis in mainstream education in such a way they do not feel discriminated. At the UFS (2016:Dec 10) the Center for Universal Access and Disability Support (CUADS) assist the institution in creating a space that is both welcoming and empowering to all students studying at the UFS. To be inclusive in accommodating all students with their different needs is the motto of CUADS.

5.8 CONCLUSION

In this chapter, the experiences and attitudes of students and lecturers participating in PPE at the FoHS, UFS were discussed as linked to the relevant literature presented in Chapter 2. Similarities and differences were pointed out as well as the viewpoint of the researcher. Proposed recommendations regarding the content of a PPE policy were also included.

In the following chapter entitled Chapter 6, **Conclusions, Recommendations and Limitations of the study**, a summary of this study will be presented. Limitations of the study will also be identified and summarised.

CHAPTER 6

CONCLUSION, RECOMMENDATIONS AND LIMITATIONS OF THE STUDY

6.1 INTRODUCTION

The researcher conducted an in-depth study to establish the experiences and attitudes of students and lecturers regarding peer physical examination in the Faculty of Health Sciences at the University of the Free State.

In the previous chapter, Chapter 5, the results of the focus group interviews were discussed and interpreted in relation to the objectives of the study.

The aim of this chapter is to provide a synopsis of the study and to make recommendations on the findings of the study. The recommendations were made with the aim of providing guidelines regarding the optimal use of PPE at the FoHS at the UFS. PPE is currently widely used in the three schools of the FoHS without formal guidelines or policies to protect the students, educators and the UFS.

The chapter begins with an overview of the study, followed by an analysis of the research questions and addressing the objectives of the study. The chapter concludes with recommendations, limitations and concluding remarks.

6.2 OVERVIEW OF THE STUDY

The study was performed and completed based on two research questions and was conducted and completed over the period from February 2015 to November 2016. The research findings served as the basis for recommendations which may be used as basis to develop a policy on the use of PPE in the FoHS at the UFS.

The research questions were presented in Chapter 1 (cf. section 1.3). These research questions directed the study and formed the outcome of the study. The research questions and main findings are reviewed below.

6.2.1 Research question one

The first research question was:

What are the attitudes and experiences of students regarding the use of PPE at the FoHS, UFS?

The first research question was slightly altered for the focus group with lecturer participants and read as follow:

What are the attitudes and perceptions of lecturers regarding PPE at the FoHS, UFS?

The following objective was pursued:

To determine the attitudes and experiences of students and lecturers regarding the use of PPE at the FoHS, UFS. This was accomplished by conducting three focus group interviews, two with students and one with lecturers of the FoHS at the UFS.

Data collection was done by conducting three focus group interviews (cf. Appendices C, D, E). Two focus group interviews were held with students and one with lecturers of the three schools in the FoHS, UFS. The data were transcribed, themes, categories and sub-categories identified and a discussion of the findings was reported in Chapter 4. The introduction (cf. 4.1) was followed by demographic information of the participants in the study (cf. 4.2.1.1. to 4.2.1.3). The demographical information on the participants was not an objective of the study, but only for the purpose of transparency. Figures 4.1 to Figure 4.4 provide graphic illustrations of the demographic information of the research participants. The credibility, dependability and trustworthiness of the study were described in Chapter 3 (cf. section 3.4). The findings of the focus group interviews were presented (cf. 4.5 **Reporting of the results**) by discussing the responses given by the participants of the focus group interviews (cf. Table 4.2 and 4.3). Chapter 5 (cf. Table 5.1) provided an integrated discussion of the results of the focus group interviews with students and lecturers as well as the literature on PPE as portrayed in Chapter 2.

6.2.2 Research question two

The second research question was:

To identify the content to be included in a PPE policy or guidelines

This question remained exactly the same for the focus groups with lecturers and students.

The following objective was pursued:

To determine what the content of a PPE policy or guidelines should be according to participants of the focus group interviews.

This objective was addressed by conducting an extensive literature review (cf. Chapter 2) on PPE. Chapter 2 provided conceptualisation and contextualisation of the subject. The literature review provided a clear understanding of PPE and the concepts related to the use of PPE namely, **what is PPE?** (cf. 2.2), **student attitudes regarding PPE** (cf. 2.3), **the use of PPE in the different healthcare professions** (cf. 2.4), **the rationale of using PPE** (cf. 2.5). It provided an **understanding of the use as PPE as educational tool** in the teaching of clinical skills (cf. 2.10) and the **content of a PPE policy** (cf. 2.11.1). The benefits, problems and solutions encountered at universities internationally when introducing a policy on the use of PPE were discussed (cf. 2.6.1). **The concerns students have** regarding the use of PPE were highlighted in Paragraph 2.8. A graphic overview of the different aspects of Chapter 2 was provided in figure 2.1.

The literature review provided the background for the study and form the basis from which the research questions were derived.

The results of the focus group interviews were analysed. Themes, categories and subcategories were identified and presented in Chapter 4 (cf. 4.5 **Reporting of the results**). The opinions of the participants of the focus groups included their experiences and attitudes regarding the use of PPE during clinical skills training and also recommendations from participants regarding what should be included in a PPE policy.

Five themes were identified and reported on for the two students focus groups. Their opinions and recommendations were grouped and discussed together (cf. section 4.5.1) and the results from the focus group with lecturers were reported on separately (cf. section 4.5.2). Only four themes were identified from the lecturers' focus groups.

Both the participants of the focus groups with students and lecturers were of the opinion that PPE has a **positive influence on the acquisition of skills and the level of competence** of students when it is used in the training of clinical skills (cf. section 4.5.1.1; 4.5.2.1) and it also **increases the level of confidence** of students when they are in the clinical areas.

Both the student participants and lecturer participants mentioned **peer-assisted learning** and the benefit thereof when participating in PPE (cf. section 4.5.1.1; 4.5.2.1). **Supervision and the lack of adequately skilled supervisors** were discussed in Chapter 4 (cf. section 4.5.1.3; 4.5.2.3). The **importance of informed consent** and whether **participation in PPE should be voluntary or compulsory** were some of the concerns discussed by participants of all the focus group interviews (cf. section 4.5.1.2; 4.5.2.2).

Participants of the focus groups with students expressed their views on the possibility of and benefit for students to make use of the concept of **flip the classroom**. Their main concern for taking this step is the lack of enough practising time when there is a lecture in class for the first hour or two (cf. section 4.5.1.5). The differences in capabilities of students and also the fact that there are students with certain disabilities among them were discussed (cf. section 4.5.2.1; 4.5.1.3).

To conclude, the majority of participants agreed on the **positive value and benefit of participating in PPE**. PPE is of benefit to students as it increases the level of competence of students with regard to clinical skills and also boosts their self-confidence. It teaches them the necessary **communication skills** to interact with patients, colleagues and subordinates in a professional way so that they can enter the clinical platforms as confident professional students.

A lack of skilled supervisors, time constraints and inconsistency among presenters of the same skill are some of the important disadvantages of using PPE in the training of students.

The interpretation of the opinions and recommendations regarding the content of a PPE policy as identified by the participants of the focus group interviews were discussed and compared to the literature (cf. 5.2 to 5.6). Recommendations for a policy on PPE were identified and discussed (cf. 5.7 PPE policy recommendations). Figure 5.1 provides a schematic illustration of the role players in the drafting of a policy on the use of PPE for the FoHS, UFS.

Recommendations on the content of a proposed PPE policy for the FoHS of the UFS can be seen in section 5.7.4.

6.3 LIMITATIONS OF THE STUDY

The researcher recognises the following limitations in the study:

The study was conducted focussing only on the FoHS, UFS. To ensure the results can be generally accepted by all higher education institutions that present health professions' education and training, follow-up studies need to be conducted that involve more of these universities and institutions and the recommendations validated against the criteria proposed in the literature.

The method used to collect data provided valuable and rich information regarding attitudes and experiences, but not all cultures or ethnic groups were represented in the focus group participants, which may have an effect on the results. A second data collection method by means of an open-ended questionnaire could have been valuable to reach a more diverse student sample. The same could be done with the educators to reach a bigger and more comprehensive sample of participants from more than one institution.

6.4 CONTRIBUTION AND SIGNIFICANCE OF THE STUDY

The research made a valuable contribution by providing recommendations on the content of a PPE policy. A policy on the participation of PPE is important for the protection of all role players such as the students, educators and the university. The first step in drafting a policy is a needs analysis to establish the value and content of a specific policy. This research study serve as a first step in adding valuable input in the understanding of the existing knowledge base on PPE and the experiences and attitudes of students and educators of the FoHS, UFS regarding the use of PPE in teaching clinical skills to healthcare professionals.

The overall goal of the research was to explore the experiences and attitudes of students and lecturers regarding the use of PPE at the FoHS, UFS and make recommendations regarding the content of a PPE policy. This was accomplished by the drafted recommendations regarding a comprehensive PPE policy for the FoHS at the UFS (cf. 5.7.4).

The significance of the study lies in the contribution to the body of scientifically based knowledge regarding peer physical examination (PPE) and the value of providing

guidelines for the content needed to successfully implement a PPE policy at the FoHS, UFS.

6.5 RECOMMENDATIONS

For this study to produce noteworthy and valuable results, the researcher takes the opportunity to make the following additional recommendations:

- Submitting a report on the findings of this study to the various Program Directors of the three schools in the FoHS, UFS.
- The results and findings of this study must be presented at national conferences and in journal articles.
- A follow-up study regarding the use of PPE needs to be conducted involving a bigger sample of students and lecturers.
- The recommendations of this study need to be verified against the needs and opinions of lecturers and students at Faculties of Health Sciences of more than one South African University.
- The suggestion from the students regarding the strategy of flip the classroom must be investigated further and implemented to determine whether it will improve the benefit and value students receive from participating in PPE.

6.6 CONCLUDING REMARKS

PPE as teaching strategy is widely used in the FoHS at the UFS. A PPE policy will enhance the satisfaction level of students and lecturers participating in the practical modules as students will be more willing to participate when they know the reasoning behind participation in PPE. This will make a difference in the desired outcomes of the practical modules and enhance the purpose of the clinical skills modules of all three Schools in the FoHS, UFS. A policy regarding the use of PPE will protect students, educators and the institution. It will enhance the experience of students in the clinical skills classrooms as they will be well prepared in advance and will be able to acknowledge the benefits and value of PPE on the preparation of their future careers.

REFERENCE LIST

Appelbaum, P.S. 2007. Assessment of patient's competence to consent to treatment. *New England Journal of Medicine* 357:1834-1840.

<http://www.nejm.org/doi/pdf/10.1056/NEJMcp074045>

Retrieved on 22 October 2016.

Bergman, J. & Sams, A. 2012. *Flip your Classroom: Reach Every Student in Every Class Every Day*. Washington: International Society for Technology in Education.

Bezuidenhout, M.C. 2015. Managing Policy and Procedures. In Booyens, S., Jooste, K. & Sibiya, N. (Eds). *Introduction to Health Services Management for the unit manager* (4th ed.). Claremont: Juta and company.

Botma, Y., Greeff, M., Mulaudzi, F.M. & Wright, S.C.D. 2010. *Research in Health Sciences*. Cape Town: Heinemann.

Braunack-Mayer, A.J. 2001. Should medical students act as surrogate patients for each other? *Medical Education*

https://www.researchgate.net/publication/11903101_Should_medical_students_act_as_surrogate_patients_for_each_other

Retrieved on 11 February 2015.

Bruce, J.C., Klopper, H.C. & Mellish, J.M. 2011. *Teaching and learning the practice of nursing* (5th ed.). Cape Town: Heineman.

Cantrell, M.A. 2008. The importance of debriefing in clinical simulations. *Clinical Simulation in Nursing* 4(2):e19-e23.

Chase, L. & Alvarez, J. 2000. Internet Research: The Role of the Focus Group. *Library & Information Science Research* 22(4):357-369.

<http://www.sciencedirect.com/science/journal/07408188>

Retrieved on 29 October 2016.

Chang, E.H. & Power, V. 2000. Are medical students comfortable with practising physical examinations on each other? *Academic Medicine* 75(4):384-389.

<http://journals.lww.com/academicmedicine/pages/articleviewer.aspx?year=2000&issue=04000&article=00020&type=abstract>

Retrieved on 23 July 2015.

Chen, J.Y., Yip, A.L.M., Lam, C.L.K. & Patil, N.G. 2011. Does medical student willingness to practise peer physical examination translate into action? *Medical Teacher*

<http://informahealthcare.com/doi/abs/10.3109/0142159X.2011.599893>

Retrieved on 11 February 2015.

Chinnah, T.I., De Bere, S.R. & Collett, T. 2011. Students' views on the impact of peer physical examination and palpation as a pedagogic tool for teaching and learning living human anatomy. *Medical Teacher*

<http://informahealthcare.com/doi/abs/10.3109/0142159X.2011.530313>

Retrieved on 11 February 2015.

Chioncel, N.E., Van Der Veen, R.G.W., Wildemeersch, D. & Jarvis, P. 2010. The validity and reliability of focus groups as a research method in adult education. *International Journal of lifelong education* 22(5):495-517.

<http://www.tandfonline.com/doi/abs/10.1080/0260137032000102850#.VcMjOyP8LIU>

Retrieved on 5 August 2015.

Consorti, F., Mancuso, R., Piccolo, A., Consorti, G. & Zurio, J. 2013. Evaluation of the acceptability of Peer Physical Examination (PPE) in medical and osteopathic students: a cross sectional survey. *BMC Medical Education*

<http://www.biomedcentral.com/1472-6920/13/111>

Retrieved on 10 April 2015.

Creswell, J. W. 2013. *Qualitative inquiry and research Design: Choosing among five approaches* (3rd ed.). Los Angeles: SAGE Publications.

Creswell, J. W. 2014. *Research design: Qualitative, quantitative and mixed methods approaches* (4th ed.). Los Angeles: SAGE Publications.

CUADS (Center for Universal Access and Disability Support). 2016. Home page.
[http://www.ufs.ac.za/supportservices/departments/student-affairs-home/center-for-universal-access-and-disability-support-\(cuads\)/overview-home](http://www.ufs.ac.za/supportservices/departments/student-affairs-home/center-for-universal-access-and-disability-support-(cuads)/overview-home)

Retrieved on 10 December 2016.

Delany, C. 2008. Making a difference: incorporating theories of autonomy into models of informed consent. *Journal of Medical Ethics* 34(9):1 of 5.

<https://www.researchgate.net/publication/23223978>

Retrieved on 10 June 2015.

Delany, C. & Frawley, H. 2011. We need a New Model for obtaining Students' consent to conduct peer physical examinations. *Academic Medicine* 86(5):539.

http://journals.lww.com/academicmedicine/Fulltext/2011/05000/We_Need_a_New_Model_for_Obtaining_Students_.3.aspx

Retrieved on 11 February 2015.

Delany, C. & Frawley, H. 2012. A process of informed consent for student learning through peer physical examination in pelvic floor physiotherapy practice. *Physiotherapy* 98(1):33-39.

[http://www.physiotherapyjournal.com/article/S0031-9406\(11\)00414-7/abstract?cc=y](http://www.physiotherapyjournal.com/article/S0031-9406(11)00414-7/abstract?cc=y)

Retrieved on 11 February 2015.

Dennis, A., Warren, R., Neville, F., Laidlaw, A. & Ozakinci, G. 2012. Anxiety about anxiety in medical undergraduates. *The Clinical Teacher* 9:330-333.

De Vos, A.S., Strydom, H., Fouche, C.B. & Delport, C.S.L. 2011. *Research at grass roots for the social sciences and human service professions* (4th ed.). Pretoria: van Schaiks.

Etheridge, L. & Boursicot, K. 2013. Performance and workplace assessment. In Dent, J.A. & Harden, R.M. (Eds). *A practical guide for medical teachers* (4th ed.). London: Churchill Livingstone Elsevier.

Gibson, L.M. 2009. Students' concerns about examining their peers. *The Clinical Teacher* 6:205-206.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1743-498X.2009.00306.x/pdf>

Retrieved on 11 February 2015.

Hargraves, R. 2012. Standardized Patient Training. In Wilson, L. & Rockstraw, L. (Eds). *Human Simulation for Nursing and Health Professions*. New York: Springer Publishing Company.

Hendry, G.J. 2013. Barriers to undergraduate peer-physical examination of the lower limb in the health sciences and strategies to improve inclusion: a review. *Advances in Health Sciences Education* 18:807-815.

<http://link.springer.com/article/10.1007/s10459-012-9418-4>

Retrieved on 11 February 2015.

Hojat, M., Gonnella, J.S., Nasca, T.J., Mangione, S., Vergare, M. & Magee, M. 2002: Physician Empathy: Definition, Components, Measurement, and Relationship to Gender and Specialty. *Am J Psychiatry* 159(9):1563-1569.

<http://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.159.9.1563>

Retrieved on 30 October 2016.

Houghton, C., Casey, D., Shaw, D. & Murphy, K. 2013. Rigour in qualitative case-study research. *Nurse researcher*. 20(4):12-17.

https://www.researchgate.net/publication/236072601_Rigour_in_qualitative_case-study_research

Retrieved on 3 May 2016.

HPCSA (Health Professions Council of South Africa). 2008. *Guidelines for good practice in the health care professions seeking patient's informed consent: The ethical considerations*. Pretoria:online.

http://www.hpcsa.co.za/Uploads/editor/UserFiles/downloads/conduct_ethics/rules/generic_ethical_rules/booklet_9_informed_consent.pdf

Retrieved on 21 October 2016.

HPCSA (Health Professions Council of South Africa). 2014. *Core competencies for undergraduate students in clinical associate, dentistry and medical teaching and learning programmes in South Africa*. Pretoria: Undergraduate Education and Training Subcommittee of the Medical and Dental Professions Board in collaboration with training institutions and the South African Committee of Medical and Dental Deans.

Hyde, A., Howlett, E., Brady, D. & Drennan, J. 2005. The focus group method: Insights from focus group interviews on sexual health with adolescents. *Social Science & Medicine*. 61:2588-2599.

Isaac, L. n.d. Policy Development: Steps in policy development.

<http://www.leoisaac.com/policy/top132.htm>

Retrieved on 7 October 2016.

Isaacs, A.N. 2014. An overview of qualitative research methodology for public health researchers. *International Journal of Medicine and Public Health* 4(4):318-323.

<http://web.a.ebscohost.com/abstract?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=22308598&AN=99519167&h=ulw%2bTE4SmIWDNwU9uadpYUEVF4VvO1%2bG3rgcisQuatHFi5ddvRx9dxT1kNgBQD%2bQOWygkYo06vH5i1MP0rT27Q%3d%3d&crl=f&resultNs=AdminWebAuth&resultLocal=ErrCrlNotAuth&crlhashurl=login.aspx%3fdirect%3dtrue%26profile%3dehost%26scope%3dsite%26authtype%3dcrawler%26jrnl%3d22308598%26AN%3d99519167>

Retrieved on 3 May 2016.

Jansen, J.D. 2012. The research question. In Maree, K. (Ed.). *First steps in Research*. Pretoria: van Schaik Publishers.

Keary, E., Byrne, M. & Lawton, A. 2012. How to conduct a literature review. *The Irish Psychologist*, 38(910):239-245.

<http://www.lenus.ie/hse/handle/10147/240231>

Retrieved on 23 October 2016.

Kelleher, M. & Schafer, J. 2014. Peer physical examination policy. *Medical Teacher* 36(9):827.

Kitzinger, J. 1995. Introducing focus groups. *British Medical Journal* 311(7000):299-302.

<https://www.ncbi.nlm.nih.gov/pubmed/7633241>

Retrieved on 3 August 2015.

Klinck, E. 2015. Practice Management: Malpractice, Negligence and Taking Steps. [PowerPoint presentation].

Koehler, N., Currey, J. & McMennamin, C. 2014. What should be included in a peer physical examination policy and procedure? *Medical Science Educator* 24(4):379-385.

<http://link.springer.com/article/10.1007/s40670-014-0068-4>

Retrieved on 11 February 2015.

Koehler, N. & McMennamin, C. 2014. The need for a peer physical examination policy within Australian medical schools. *Medical Teacher* 36(5):430-433.

<http://informahealthcare.com/doi/pdf/10.3109/0142159X.2013.874551>

Retrieved on 11 February 2015.

Kotsis, S.V. & Chung, K.C. 2013. Application of See One, Do One, Teach One Concept in Surgical Training. *Plast Reconstr Surg* 131(5):1194–1201.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4785880/>

Retrieved on 4 October 2016.

Kruger, S.B., Nel, M.M. & van Zyl, G.J. 2015. Implementing and managing community-based education and service learning in undergraduate health sciences programmes: Students' perspectives. *African Journal of Health Professions Education* 7(2):161-164.

<http://0-web.b.ebscohost.com/wagtail.ufs.ac.za/ehost/results?sid=257f89fd-d7f3-4970-a701b24674d8f8a6%40sessionmgr103&vid=10&hid=118&bquery=community+based+education&bdata=JmRiPWE5aCZjbGkwPVJWJmNsdjA9WSZjbGkxPURUMSZjbHYxPTlwMTlwMS0yMDE3MTImdHlwZT0wJnNpdGU9ZW5vc3QtbGl2ZQ%3d%3d>

Retrieved on 4 October 2016.

Maree, K. & Pietersen, J. 2012. Sampling. In Maree, K. (Ed.). *First steps in Research*. Pretoria: van Schaik publishers.

Mavis, B.E., Ogle, K.S., Lovell, K.L. & Madden, L.M. 2002. Medical students as standardized patients to assess interviewing skills for pain evaluation. *Medical Education* 36:135-140.

<http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2923.2002.01070.x/pdf>

Retrieved on 28 March 2015.

McLachlan, J.C., White, P., Donnelly, L. & Patten, D. 2010. Student attitudes to peer physical examination: A qualitative study of changes in expressed willingness to participate. *Medical Teacher* 32(2):e101-e105.

<http://www.tandfonline.com/doi/pdf/10.3109/01421590903202504?needAccess=true>

Retrieved on 11 February 2015.

McLafferty, I. 2004. Focus group interviews as a data collecting strategy. *Journal of Advanced Nursing* 48(2):187-194.

Mosby's medical dictionary. 2009. (8th ed.). Elsevier.

<http://medical-dictionary.thefreedictionary.com/informed+consent>

Retrieved on 3 May 2015.

Nicholls, D. 2009a. Qualitative research: Part one – Philosophies. *International Journal of Therapy and Rehabilitation* 16(10):526-533.

https://www.researchgate.net/publication/234055157_Qualitative_Research_Part_One_-_Philosophy

Retrieved on 3 May 2016.

Nicholls, D. 2009b. Qualitative research: Part two – Methodologies. *International Journal of Therapy and Rehabilitation* 16(11):586-592.

https://www.researchgate.net/publication/234055156_Qualitative_Research_Part_Two_-_Methodology

Retrieved on 3 May 2016.

Nieuwenhuis, J. 2012. Qualitative research designs and data gathering techniques. In Maree, K. (Ed.). *First steps in Research*. Pretoria: van Schaik publishers.

O'Neill, P.A., Larcombe, C., Duffy, K. & Dorman, T.L. 1998. Medical students' willingness and reactions to learning basic skills through examining fellow students. *Medical Teacher* 5:433-437.

<http://informahealthcare.com/doi/pdf/10.1080/01421599880526>

Retrieved on 21 March 2015.

Outram, S. & Nair, B.R. 2008. Peer physical examination: time to revisit? *MJA* 189(5):274-276.

<https://www.mja.com.au/journal/2008/189/5/peer-physical-examination-time-revisit>

Retrieved on 11 February 2015.

Pera, S.A. & van Tonder, S. 2015. *Ethics in Healthcare* (3rd ed.). Lansdowne: Juta & Co.

Pounds, G. 2010. Empathy as 'appraisal': A new language-based approach to the exploration of clinical empathy. *Journal of Applied Linguistics & Professional Practice* 7(2):139-162.

<http://eds.a.ebscohost.com/eds/pdfviewer/pdfviewer?sid=c2abbe80-3efe-4b43-8f73-591d88425c17%40sessionmgr4009&vid=0&hid=4113>

Retrieved on 10 November 2016.

Power, D.V. 2011. We need a New Model for obtaining Students' consent to conduct peer physical examinations. *Academic Medicine* 86(5):539.

http://journals.lww.com/academicmedicine/Fulltext/2011/05000/We_Need_a_New_Model_for_Obtaining_Students_.3.aspx

Retrieved on 11 February 2015.

Power, D.V. & Center, B.A. 2005. Examining the Medical Student Body: Peer Physical Exams and Genital, Rectal, or Breast Exams. *Teaching and Learning in Medicine* 17(4):337-343.

<http://www.ncbi.nlm.nih.gov/pubmed/16197320>

Retrieved on 22 September 2015.

Rabiee, F. 2004. Focus-group interview and data analysis. *Proceedings of the Nutrition Society* 63(4):655-660.

<https://www.cambridge.org/core/journals/proceedings-of-the-nutrition-society/article/focus-group-interview-and-data-analysis/E5A028A3DA12A038A7D49566F73416B8>

Retrieved on 29 October 2016.

Ranjan, P., Kumari, A. & Chakrawarty, A. 2015. How can doctors improve their communication skills? *Journal of Clinical & Diagnostic Research* 9(3):JE01-JE04.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4413084/>

Retrieved on 8 November 2016.

Raubenheimer, D. 2013. Students' body image perceptions after completion of an anatomy course. *Journal for New Generation Sciences* 11(1):89-103.

<http://journals.co.za/content/newgen/11/1/EJC141430>

Retrieved on 5 October 2016.

Rees, C.E. 2007. The influence of gender on student willingness to engage in peer physical examination: the practical implications of feminist theory of body image. *Medical Education* 41(8):801-807.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2923.2007.02779.x/pdf>

Retrieved on 12 February 2015.

Rees, C. E., Bradley, P., Collett, T. & McLachlan, J.C. 2005. "Over my dead body?" the influence of demographics on students' willingness to participate in peer physical examination. *Medical Teacher* 27(7):599-605.

<http://informahealthcare.com/doi/abs/10.1080/01421590500237671>

Retrieved on 11 February 2015.

Rees, C.E., Bradley, P. & McLachlan, J.C. 2004. Exploring medical students' attitudes towards peer physical examination. *Medical Teacher* 26(1):86-88.

<http://informahealthcare.com/doi/abs/10.1080/01421590310001642984>

Retrieved on 11 February 2015.

Rees, C.E., Wearn, A. M., Vnuk, A.K. & Bradley, P.A. 2009a. Don't want to show fellow students my naughty bits: Medical students' anxieties about peer examination of intimate body regions at six schools across UK, Australasia and Far-East Asia. *Medical Teacher* 31(10):921-927.

<http://informahealthcare.com/doi/pdf/10.3109/01421590802578244>

Retrieved on 11 February 2015.

Rees, C.E., Wearn, A.M., Vnuk, A.M. & Sato, T.J. 2009b. Medical students' attitudes towards peer physical examination: findings from an international cross-sectional and longitudinal study. *Adv in Health Sci Educ* 14:103-121.

http://download.springer.com/static/pdf/14/art%253A10.1007%252Fs10459-007-9094-y.pdf?originUrl=http%3A%2F%2Flink.springer.com%2Farticle%2F10.1007%2Fs10459-007-9094-y&token2=exp=1484229115~acl=%2Fstatic%2Fpdf%2F14%2Fart%25253A10.1007%252Fs10459-007-9094-y.pdf%3ForiginUrl%3Dhttp%253A%252F%252Flink.springer.com%252Farticle%252F10.1007%252Fs10459-007-9094-y*~hmac=d3f55b4f00a366a731614b1a6ccf2d1e7277b5b15d35dbd53ef8a0611b7152c0

Retrieved on 11 February 2015.

Reid, K.J., Kgakololo, M., Sutherland, R.M., Elliott, S.L. & Dodds, A.E. 2012. First-year medical students' willingness to participate in peer physical examination. *Teaching and Learning in Medicine* 24(1):55-62.

<http://www.tandfonline.com/doi/pdf/10.1080/10401334.2012.641489?needAccess=true>

Retrieved on 11 February 2015.

RSA (Republic of South Africa). 1997. *White Paper on the Transformation of the healthcare System in SA*. Pretoria: Department of Health.

http://www.gov.za/sites/www.gov.za/files/17910_gen667_0.pdf

Retrieved on 28 August 2015.

RSA (Republic of South Africa). 2003. *National Health Act, no.61 of 2003*. Cape Town: Government Printer.

RSA (Republic of South Africa. Department of Social Development). 2015. *White paper on the rights of persons with disabilities*. Pretoria: Department of Social Development.

<https://www.ru.ac.za/.../White%20Paper%20on%20the%20Rights%20of%20Persons%20>

Retrieved on 9 December 2016.

SAMA (South African Medical Association). 2016. *National Patients Health Charter*.

<https://www.samedical.org/links/charter>

Retrieved on 8 November 2016.

Slowther, A., Johnston, C., Goodall, J. & Hope, T. 2004. *A practical guide for clinical ethics support*. The Ethox Centre. Section C: Ethical Frameworks.

http://www.ukcen.net/uploads/docs/education_resources/prac_guide.pdf.

Retrieved on 5 October 2016.

Snider, K.T., Seffinger, M.A., Ferrill, H.P. & Gish, E.E. 2012. Trainer-to-Student Ratios for Teaching Psychomotor Skills in Health Care Fields, as Applied to Osteopathic Manipulative Medicine. *JAOA* 112(4):182-187.

<http://jaoa.org/article.aspx?articleid=2094443>

Retrieved on 10 November 2016.

Tong, A., Sainsbury, P. & Craig, J. 2007. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care* 19(6):349-357.

<http://intqhc.oxfordjournals.org/content/19/6/349>

Retrieved on 4 August 2015.

Topping, K.J., & Ehly, S.W. 2001. Peer assisted learning: a framework for consultation. *Journal of Educational and Psychological Consultation* 12(2):113-132

UNESCO (United Nations Educational, Scientific and Cultural Organization). 2015. Education-Most influential theories of learning.

<http://www.unesco.org/new/en/education/themes/strengthening-education-systems/quality-framework/technical-notes/influential-theories-of-learning/>

Retrieved on 10 September 2015.

Vaughan, B. & Grace, S. 2016. Perception of peer physical examination in two Australian osteopathy programs. *Chiropractic & Manual Therapies* 24(21):1-11 of 11.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4939704/pdf/12998_2016_Article_102.pdf

Retrieved on 7 October 2016.

Wearn, A. & Bhoopatkar, H. 2006. Evaluation of consent for peer physical examination: students reflect on their clinical skills learning experience. *Medical Education* 40:957-964.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2929.2006.02557.x/epdf>

Retrieved on 11 February 2015.

Wearn, A. & Bhoopatkar, H. 2014. Experience of a peer physical examination policy within a New Zealand medical programme. *Medical Teacher* 36(9):826-827.

Wearn, A. M., Bhoopatkar, H., Mathew, T.K. & Stewart, L. 2013. Exploration of the attitudes of nursing students to peer physical examination and physical examination of patients. *Nurse Education Today* 33:884-888.

http://ac.els-cdn.com/S0260691712002754/1-s2.0-S0260691712002754-main.pdf?_tid=9a94651c-d8cf-11e6-be9f-00000aacb360&acdnat=1484229864_9f0542efaf72969a01e2ddf9d8c65ebc

Retrieved on 11 February 2015.

Wearn, A.M., Rees, C.E., Bradley, P. & Vnuk, A.K. 2008. Understanding student concerns about peer physical examination using an activity theory framework. *Medical Education* 42:1218-1226.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2923.2008.03175.x/epdf>

Retrieved on 11 February 2015.

Wilkinson, S. 2004. Focus group research. In Silverman, D., (Ed.) *Qualitative research: Theory, method and practice* (2nd ed.). London: Sage.

Yardley, S., Teunissen, P.W. & Dorman, T. 2012. Experiential learning: AMEE Guide No. 63. *Medical Teacher* 34(2):e102-115.

<http://www.pubfacts.com/detail/22289008/Experiential-learning:-AMEE-Guide-No.-63>.

Retrieved on 9 September 2015.

PERSONAL COMMUNICATION

Barnes, R. 2015. Head: Department of Physiotherapy, Faculty of Health Sciences, University of the Free State. E-mail on 07 September.

Fichardt, A. 2015. Program Director: School of Nursing, Faculty of Health Sciences, University of the Free State. E-mail on 09 September.

Oberholzer, M. 2015. Lecturer: Department of Optometry, Faculty of Health Sciences, University of the Free State. E-mail on 07 September.

Swanepoel, A. 2015. Lecturer: Department of Occupational Therapy, Faculty of Health Sciences, University of the Free State. Telephonic interview on 07 September.

Van der Merwe, L.J. 2015. Program Director: School of Medicine, Faculty of Health Sciences, University of the Free State. E-mail on 08 September.

APPENDIX A
IMPORTANT NOTICE NO 3 DEPARTMENT OF PHYSIOTHERAPY

APPENDIX A

IMPORTANT NOTICE NO 3 DEPARTMENT OF PHYSIOTHERAPY



UNIVERSITY OF FREE STATE FACULTY OF HEALTH SCIENCES PHYSIOTHERAPY DEPARTMENT

IMPORTANT NOTICE no.3

I understand and agree that as part of the Physiotherapy Programme I will be expected to **expose relevant joints and/or body parts during practical classes** for educational purposes. This will be done respecting my privacy at all times.

I am aware that I will also **be expected to perform and practice practical skills and techniques on my fellow students**, and them on me.

It remains my responsibility to inform the student co-ordinator, lecturer(s) and my fellow students of any **relevant** pre-existing medical conditions, injuries or precautions ahead of any practical classes.

I,, hereby acknowledge that I cannot hold the Department of Physiotherapy liable for any injuries sustained during practical training classes or other practice sessions amongst fellow-students. I also undertake to execute all techniques as instructed and demonstrated by the lecturer in order to limit the risk of causing injury to my fellow students.

Name

Date

Signature

APPENDIX B
CONSENT FORM: SCHOOL OF MEDICINE

APPENDIX B

CONSENT FORM: SCHOOL OF MEDICINE

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA



UFS·UV
HEALTH SCIENCES
GESONDHEIDSWETENSKAPPE

SLEGS M.B.ChB. – EN FISIOTERAPIE-STUDENTE

TOESTEMMING TOT MEDIESE ONDERSOEK

Ek, die ondergetekende, met

I.D Nr:, verklaar hiermee as volg:

1. Ek is tans 'n geregistreerde student verbonde aan die Fakulteit Gesondheidswetenskappe, Universiteit van die Vrystaat.
2. Ek is a bekwame, volwassene en is by magte om toestemming te verleen tot alle aspekte rakende my persona sonder die volmag of bystand van my ouer(s) of wetlike voog.
3. Ek is bewus van die feit dat dit gedurende die kursus en omvang van my studies soms vir my nodig sal wees om gedeeltelik te ontklee, of 'n ledemaat te ontbloot. Dus verleen ek hiermee toestemming daartoe, onderworpe aan die volgende bepalings en voorwaardes:
 - a. Verwydering van 'n deel van my kledingstukke sal slegs vir kliniese opleidingsdoeleindes en behandeling plaasvind.
 - b. Sodanige ontbloting en/of verwydering van sommige van my klere sal slegs plaasvind met die doel om my opleiding te bevorder en meer spesifiek te help met die aanleer van tegnieke wat tydens kliniese ondersoeke en behandelings gebruik mag word.
 - c. Sodanige ontbloting sal te alle tye in die teenwoordigheid van 'n dosent in diens van die UNIVERSITEIT VAN DIE VRYSTAAT, en meer spesifiek die Departement (of Afdeling) plaasvind.
 - d. Sodanige ontbloting sal te alle tye binnenshuis plaasvind en sal my geen ongemak veroorsaak of in die verleentheid stel nie.

Ek verklaar hiermee verder dat ek vrywillig toestemming verleen tot voormelde ontbloting en dat ek onder geen dwang geplaas word om hierdie toestemming te verleen nie.

GETEKEN TE OP HIERDIE DAG VAN 2016.

.....
HANDTEKENING: STUDENT

NAAM &
VAN IN
DRUKSKRIF:

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STUDENTENOMMER:

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1.
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APPENDIX C
INTERVIEW GUIDE FOR FOCUS GROUP INTERVIEWS

APPENDIX C

INTERVIEW GUIDE FOR FOCUS GROUP INTERVIEWS

THE EXPERIENCES AND ATTITUDES OF STUDENTS AND LECTURERS REGARDING PEER PHYSICAL EXAMINATION IN THE FACULTY OF HEALTH SCIENCES AT THE UNIVERSITY OF THE FREE STATE.

Interview guide by Maryna G.M. Hattingh (1987429956) as part of a Master's degree in HPE.

Facilitator: _____

Independent observer: _____

Welcome and Introduction (3-5 minutes)

Thank everyone present for their participation in the study.

Introduce all participants and reconfirm confidentiality and anonymity.

Remind them of the purpose of the study and of the fact that the discussion will be recorded.

The purpose of the study is to establish what the content of a peer physical examination policy within the Faculty of Health Sciences could be.

Focus area one: (15-20 minutes)

a) Students:

What is your attitude and perception regarding peer physical examination (PPE)?

b) Lecturers:

What is your approach and perception regarding the use of peer physical examination (PPE) as an education tool in the classroom?

Focus area two: (15-20 minutes)

Students and lecturers:

What should be the content of a peer physical examination policy?

Conclusion (3-5 minutes)

Are there any challenges relating to PPE which was not yet addressed?

Thank all the participants for their cooperation.

APPENDIX D

INFORMED CONSENT DOCUMENT: FOCUS GROUP INTERVIEW

APPENDIX D

INFORMED CONSENT DOCUMENT: FOCUS GROUP INTERVIEW

Consent Form

Master's (HPE) project titled:

**THE EXPERIENCES AND ATTITUDES OF STUDENTS AND LECTURERS
REGARDING PEER PHYSICAL EXAMINATION IN THE FACULTY OF HEALTH
SCIENCES AT THE UNIVERSITY OF THE FREE STATE.**

I (title and full names)

Have been fully informed about the research study and my participation in the study

Agree that the focus group interview may be recorded and I understand that these recordings will be kept safe and my name will not be labelled on the recording

Freely agree to participate in this project and acknowledge that should I wish to withdraw my participation, due to unforeseen circumstances or personal choice, I would be required to sign a Revocation of Consent Form which will be given to me by the researcher. I understand that this will not disadvantage me in any way.

Understand that my identity and personal details will remain confidential

Further acknowledge that I am aware that the results from this study will be made available to the Faculty Board of the Faculty of Health Sciences, UFS. The findings will also be presented at appropriate congresses and forums and for publication purposes

Understand that I will be given a copy of the consent form to keep

Am aware that I can contact the researcher and/or study leader of the study at any time should I have a concern.

Signature_____

Date_____

Please e-mail or hand delivers this form to:

Mrs. M.G.M.Hattingh

Researcher

P.O.Box 35864

Faunasig 9325

E-mail address: hattinghmgm@ufs.ac.za

Cell no: +27837494178

APPENDIX E
INFORMATION TO PARTICIPANT DOCUMENT

APPENDIX E

INFORMATION TO PARTICIPANT DOCUMENT

Master's (HPE) project titled:

THE EXPERIENCES AND ATTITUDES OF STUDENTS AND LECTURERS REGARDING PEER PHYSICAL EXAMINATION IN THE FACULTY OF HEALTH SCIENCES AT THE UNIVERSITY OF THE FREE STATE.

Principal Researcher: Mrs. Maryna Gertruida Maria Hattingh, Researcher University of the Free State, Division Health Sciences Education

Dear Students

I am in the process of writing a mini-dissertation to obtain the Master's degree in Health Professions Education in the Faculty of Health Sciences at the University of the Free State (1987429956). The title of my research is: **THE EXPERIENCES AND ATTITUDES OF STUDENTS AND LECTURERS REGARDING PEER PHYSICAL EXAMINATION IN THE FACULTY OF HEALTH SCIENCES AT THE UNIVERSITY OF THE FREE STATE.**

You have been selected because you are participating, or were participating in a module where peer physical examination is used in your specific school within the Faculty of Health Sciences at the UFS.

I therefore would like to request your participation in this research as part of the panel of participants. Participation is voluntary. Your responses will be treated confidentially and no reference will be made to the names of the participants. Should you feel concerned you may withdraw your consent and end your participation at any stage of the project. *There will be no cost payable by any participants and it should be noted that no remuneration will be received.*

A focus group interview will be conducted at a date and venue which will be communicated to you if you indicate your interest to participate

After having addressed the research questions the findings will be written up and published. The results of this study might assist in the developing of a peer physical

examination policy which can be used by all three schools of the faculty of health sciences at the UFS.

If you require further information, or wish to withdraw your participation at any stage, you can contact the researcher.

Thank you in advance for your consideration to take part in the research.

Yours sincerely.

Mrs. M.G.M.Hattingh

Researcher

P.O.Box 35864

Faunasig 9325

E-mail address: hattinghmgm@ufs.ac.za

Cell no: +27837494178

APPENDIX F
ETHICS COMMITTEE APPROVAL LETTER

APPENDIX F

ETHICS COMMITTEE APPROVAL LETTER



IRB nr 00006240
REC Reference nr 230408-011
IORG0005187
FWA00012784

11 November 2015

MRS MGM HATTINGH
CLINICAL SIMULATION AND SKILLS UNIT
FACULTY OF HEALTH SCIENCES
UFS

Dear Mrs Hattingh

ECUFS NR 188/2015

PROJECT TITLE: THE EXPERIENCES AND ATTITUDES OF STUDENTS AND LECTURERS REGARDING PEER PHYSICAL EXAMINATION IN THE FACULTY OF HEALTH SCIENCES AT THE UNIVERSITY OF THE FREE STATE

1. You are hereby kindly informed that, at the meeting held on 10 November 2015, the Ethics Committee approved the following project after all conditions have been met, when the signed permission signed permission from UFS Authorities (EC42) form was submitted.
2. The Committee must be informed of any serious adverse event and/or termination of the study.
3. Any amendment, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.
4. A progress report should be submitted within one year of approval of long term studies and a final report at completion of both short term and long term studies.
5. Kindly use the ECUFS NR as reference in correspondence to the Ethics Committee Secretariat.
6. The Ethics Committee functions in compliance with, but not limited to, the following documents and guidelines: The SA National Health Act. No. 61 of 2003; Ethics in Health Research: Principles, Structures and Processes (2015); SA GCP(2006); Declaration of Helsinki; The Belmont Report; The US Office of Human Research Protections 45 CFR 461 (for non-exempt research with human participants conducted or supported by the US Department of Health and Human Services- (HHS), 21 CFR 50, 21 CFR 56; CIOMS; ICH-GCP-E6 Sections 1-4; The International Conference on Harmonization and Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH Tripartite), Guidelines of the SA Medicines Control Council as well as Laws and Regulations with regard to the Control of Medicines, Constitution of the Ethics Committee of the Faculty of Health Sciences.

Yours faithfully


DR SM LE GRANGE
CHAIR: ETHICS COMMITTEE

Cc: Dr MJ Labuschagne



APPENDIX G

Declaration from language editor

APPENDIX G

Declaration from language editor

17 January 2017

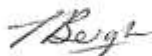
Luna Bergh

55 Jim Fouché Avenue
Universitas, Bloemfontein

To whom it may concern

This is to certify that I language-edited Maryna Hattingh's mini-dissertation manually, excluding references. She effected the changes herself. In this way both linguistic excellence and the candidate's ownership of her text were ensured.

Sincerely



Luna Bergh

D Litt et Phil

Language and writing specialist

APPENDIX H
Turnitin Report

APPENDIX H

Turnitin Report



Digital Receipt

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