The Perceptions of Preceptors Regarding Assessment of Clinical Associate Students at Walter Sisulu University

By

Aloysious Kakia

A research assignment presented in partial fulfilment of the requirements for the degree of

Masters of Philosophy in Health Professions Education (MPhil in HPE)

In the

Faculty of Medicine and Health Sciences

At

Stellenbosch University

Supervisor: Professor Ian Couper

December 2019

DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Signature: _____

Date: _____

ABSTRACT

Introduction

Preceptors are vital stakeholders in the training of clinical associate students at district hospital training sites in the Walter Sisulu University Bachelor of Medical Clinical practice (BMCP) programme. They conduct teaching and learning, and assessment activities. Whereas preceptors have facilitated learning and assessment for clinical associate students for ten years, their perceptions of the assessment process had not been explored and factored into clinical associate training.

Aim

The aim of this study was to explore the perceptions of preceptors regarding assessing clinical associate students at district hospital training sites.

Methods

This was a qualitative study using a phenomenological approach. Nine preceptors were purposively selected and interviewed from three district hospitals. The interviews were audio recorded, transcribed, and thematic analysis was conducted.

Results

Four themes emerged from data analysis with several subthemes and categories. The themes were: assessment issues, student issues, preceptor issues and university issues. The subthemes under assessment issues were conduct of assessment, tools of assessment, validity of assessment and ease of assessment. The theme of student issues had the subthemes of poorly performing students, student demands, and conflicts with students. The theme of preceptor issues included the subthemes of preceptor skills for assessment, affect related to assessment, and preceptor motivation. The theme of university issues had one subtheme which was university support for assessment.

Discussion

Preceptors were found to be actively engaged with students at the district hospitals, are highly motivated, and obtained satisfaction from the assessment that they do. There was no training of the preceptors in preparation for their role. They therefore employed various individual techniques to train and assess students which resulted in a heterogeneous picture across the sampled sites. The lack of training coupled with reluctance to fail poor performing students and the possibility of subjectivity bring the reliability of assessment by preceptors into question.

Conclusion

The district hospital training sites are seen to be appropriate for training and assessing clinical associates. There is a need for training and continued support of preceptors so as to assure reliability and uniformity of the assessment process.

OPSOMMING

Inleiding

Preseptore is belangrike belanghebbendes in die opleiding van klinies geassosieerde studente by die distrik opleidingskampusse in die Baccalaureas Kliniese praktiese program by die Universiteit Walter Sisilu. Hulle doen leer en onderrig, sowel as assesseringsaktiwiteite. Die preseptore het die leer en assessering fasiliteer vir die klinies geassosieerde studente al vir die afgelope 10 jaar gefasiliteer, maar hulle ondervinding en persepsies van die assesseringsproses is nog nie ondersoek nie.

Doel

Die doel van hierdie studie was om die persepsies en ondervinding van die preseptore rakende die assessering van die klinies geassosieerde studente by distrik hospitaal opleidingskampusse te ondersoek.

Metodes

Dit was ‘n kwalitatiewe studie met ‘n fenomenologiese benadering. Nege preseptore van drie distrikhospitale is doelgerig gekies om mee onderhoude te voer Die onderhoude is gerekordeer en getranskribeer, waarna ‘n tematiese analise gedoen is.

Resultate

Vier temas het ontstaan uit die data-analise met verskeie subtemas en kategorieë. Hierdie temas was: assesseringsprobleme, studenteprobleme, probleme met preseptore en universiteitsprobleme. Die subtemas onder assesseringsprobleme was die uitvoer van assessering, bronne van assessering, die geldigheid van assessering, sowel as die gemak van assessering. Studenteprobleme het die volgende subtemas gehad: studente wat swak vaar, eise van studente, en konflik met studente. Preseptorprobleme het subtemas ingesluit wat verband hou met die vaardighede vir assessering, die invloed rakende assessering, en motivering van preseptore. Universiteitsprobleme het slegs een subtema gehad, naamlik die ondersteuning van assessering van die universiteit.

Bespreking

Dit is gevind dat preseptore aktief betrokke was by studente by distrik hospitale, dat hulle hoogs gemotiveerd is, en dat hulle tevrede is met die assessering wat hulle doen. Daar was geen opleiding van die preseptore gewees om hulle voor te berei vir die rol wat hulle moet vervul nie. Hulle het dus verskeie individuele tegnieke gebruik om studente op te lei en te assesseer; wat gevolglik gelei het tot ‘n heterogene beeld regoor die verkose kampusse. Die gebrek aan opleiding tesame met die

onwilligheid om studente wat swak presteer te druip en die moontlikheid van subjektiwiteit trek die geldigheid van assessering deur preseptore in twyfel.

Gevolgtrekking

Die distrik hospitaal opleiding areas word gesien as toepaslik vir die opleiding en assessering van klinies geassosieerde studente. Daar is egter ‘n behoefte vir opleiding en deurlopende ondersteuning van preseptore om sodoende die validiteit en uniformiteit van die assesseringsproses te verseker.

ACKNOWLEDGEMENT

This work would not have been possible without the persistent encouragement from my wife and the patient understanding of my children when I had to pay attention to the computer instead of them. Professor J. Iputo and Professor J. Blitz caused the seed of this study to germinate. My supervisor, Professor I. Couper, shaped my thinking, lit the path I had to walk along, and caused the study to blossom. The Lord indeed makes all things beautiful in his time.

DEDICATION

This work is dedicated to the preceptors who have tirelessly supported the training of clinical associate students at district hospitals in South Africa, often under conditions that are far from ideal.

TABLE OF CONTENTS

TABLES AND FIGURES

ABBREVIATIONS

AJOL	African Journals online
BMCP	Bachelor of Medicine in Clinical Practice
CINAHL	Cumulative Index to Nursing and Allied Health Literature
ClinA	Clinical Associate
ECDOH	Eastern Cape department of health
OPD	Out patients department
OSCE	Objective structured clinical examination
WHO	World Health Organization
WPBA	Work place based assessment
WPBL	Work place based learning
WSU	Walter Sisulu University
AERA	American Educational Research Association
APA	American Psychological Association
NCME	National Council on Measurement in Education

CHAPTER 1

ORIENTATION TO THE STUDY

1.1 Background

A preceptor is a skilled clinical practitioner who supervises students in a clinical setting so as to enable them to have a practical experience with patients (Myrick & Yonge, 2005). Preceptors are also called mentors (Black, 2011), practice educators (Kilminster & Jolly, 2000), clinical educators (Kilminster & Jolly, 2000), clinical education facilitators (Lambert & Glacken, 2005), supervisors (Trede, McEwen, Kenny, & O'Meara, 2014), and clinical supervisors (De Villiers et al., 2017). The terminology used varies with geographical region and profession. Preceptorship is a highly useful strategy for clinical training. It ensures that students get individualised experiential learning opportunities, is the interface between theory and real patient management, and provides for role modelling (Burns 2003). Preceptors are the link between the education institution and clinical practice (Bott & Lawlor, 2011), and facilitate the process of making the students become more competent as they learn critical thinking, clinical reasoning, and clinical judgement (Botma 2016). Omer, Suliman and Moola (2016) include assessment as one of the four key roles of preceptors in addition to the roles of protector, educator and facilitator. Botma (2016) reiterates the importance of preceptors being able to conduct valid and reliable assessment of students, and Norcini and Burch (2007) underline the importance of training assessors of students in the workplace (clinical setting) so as to enhance validity and avoid bias in workplace based assessment. Because preceptors are typically not faculty members of the training institution, they need to be trained before they start precepting students (Botma 2016)

Preceptors are an important stakeholder in decentralised health professionals' education, which is training of health professionals at multiple health centres away from the tertiary hospitals traditionally attached to medical schools. A scoping review by de Villiers et al (2017) underlined the need for clinician supervisors (preceptors) who are committed and motivated in order for decentralised HPE to be successful. Decentralised training is a key strategy for transforming and upscaling health professionals' education (World Health Organisation, 2013) because it ensures an optimal use of resources by decongesting tertiary hospital training sites and employing hospitals that are not usually used for HPE. It also helps to address the problem of rural urban maldistribution of the health workforce and trains fit-for-purpose health workers (South African Association of Health Educationalists, 2017).

Clinical associates (ClinAs) are a new cadre of midlevel health worker in South Africa who were introduced into the health workforce in 2011 as an effort to address the shortage of health

professionals in rural areas and in response to the 2001 'Pick Report' (Pick, Khanyisa, Corwall, & Masuku, 2001) detailing the human resources for health needs for South Africa (Couper & Hugo, 2014). Similar cadres of health professionals already existed in several African, North American and European countries under various titles that include clinical officer, medical assistant, physician assistant and associate physician, to mention but a few. Clinical Associates are trained to assist doctors with routine tasks, specifically at district hospitals, and their scope of practice is described in the South Africa Health Professions Act 1974 under the regulations defining the scope of practice of clinical associates (2016). According to these regulations, the clinical associates are to be supervised directly by medical practitioners for a period of at least five years, after which they do not have to be directly supervised, but need to maintain close contact with a medical practitioner. Bac et al (2017) found that using clinical associates in a rural district hospital in South Africa led to improvement in quality of patient care by reducing waiting times in casualty and outpatient departments (OPD) because the clinical associates took on much of the workload of the medical team. Hamm, van Bodegraven, Bac & Louw (2016) looked at the cost of training and employing clinical associates and found that the ClinAs were two and a half times less costly to train than doctors, and about three times less costly to employ. In the same study ClinAs were found to free up the time of doctors by 50% to 70% while providing the same quality of care. Clinical associates are therefore a means of meeting the ever increasing demand for rural healthcare workers in South Africa.

Walter Sisulu University (WSU) began Training of ClinAs in 2008. Currently, sixty students are taken into the program annually to undergo a three-year Bachelor of Medicine in Clinical Practice (BMCP) course. The training is conducted on a decentralised platform that is spread over five hospitals: Mthatha General Hospital, Madzikane KaZulu Memorial Hospital, Malizo Mphehle Hospital, Rietvlei Hospital and St Barnabas Hospital. Four of the hospitals are district hospitals, while Mthatha General Hospital was recently upgraded from a district hospital to a regional referral hospital. The students spend 75% of the training time at these hospitals. This design is based on evidence supporting service-based learning as the most appropriate approach for medical education (Doherty, Couper, & Fonn, 2012) and has so far proved useful in the training of ClinAs (Doherty, Conco, Couper, & Fonn, 2013). At the hospitals, students spend an average of four hours a day in the clinical setting where they acquire attitudes, knowledge and skills under the preceptorship of a multidisciplinary group of health professionals including, inter alia, doctors, clinical associates, nurses, and dieticians in the wards, outpatients' department, and casualty units. The preceptors do not receive compensation for training clinical associate students.

As noted above by Omer, Suliman and Moola (2016), assessment is one of the key roles of preceptors. The preceptors in the BMCP program are therefore involved in assessing the students at the training sites in regard to procedural skills, clinical knowledge, and various aspects of professionalism as part of continuous assessment with both a formative and summative function. The score for continuous assessment comprises 60% of the final mark at the end of the year. The procedures are done over a six-month period and student performance is graded on a scale of one to five for each procedure performed. The procedures vary according to the year of study and include lumbar puncture, removal of foreign bodies from ears and eyes, nasal packing, conducting an ECG, basic life support, wound debridement, intravenous line insertion, administering local anaesthesia, surgical toilet and suturing of wounds, incision and drainage of superficial abscesses, gastric lavage, oral rehydration therapy, to mention but a few. Students are required to conduct each procedure several times as prescribed in the log book. For example, a first year student is expected to perform ten urine dipstick and five pregnancy tests. Procedural skills are assessed by the cadre that typically performs them. Therefore, insertion of intravenous lines is assessed by the doctors or practicing ClinAs, while vaccination is assessed by nurses. The final mark given for procedures contributes 10% of the total mark for continuous assessment. Students are also assessed once at the end of each ward rotation regarding their professionalism, teamwork, timekeeping, communication, clinical reasoning, and clinical skills. This score contributes 5% to the continuous assessment mark, bringing the contribution of the preceptor assessment to 15% of continuous assessment. The remainder of the continuous assessment is conducted by university faculty through OSCEs, written exams, class presentation, and case write ups (called patient oriented medical records). Students who do not score at least 50% on the preceptor assessments are not allowed to sit the end of year exam. Preceptors are therefore an important part of student assessment in the WSU BMCP program.

1.2 Problem statement

The clinical setting is the context where theory is translated into practice for the clinical sciences. Seventy five percent of the BMCP program at WSU is conducted on a decentralised platform based at district hospitals where preceptors lead the students through the clinical experience. The program trains clinical associates who are a new cadre of health professionals in South Africa. Preceptors are therefore key stakeholders as facilitators and assessors of this new cadre of students being trained in a nouvelle learning environment (decentralised sites) and their perceptions and experiences could have a bearing on conduct and quality of assessment. Knowledge of the experience and perceptions of preceptors in assessing ClinA students has been missing in the literature and yet it is important for identifying

strengths and weaknesses of the assessment process and would contribute to quality improvement efforts and to optimizing preceptorship in the BMCP program at WSU and South Africa as a whole.

1.3 Aim

The aim of this study was to explore the perceptions of preceptors regarding assessing WSU clinical associate students.

1.4 Research Question

What are the perceptions and experiences of preceptors regarding assessing WSU clinical associate students at district hospital training sites?

1.5 Justification

The knowledge gained from this study will make it possible for the program leadership to optimise the functioning of this vital teaching and learning resource. It will provide feedback that will be useful for quality improvement of assessment in the BMCP program at WSU.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter consists of two parts. The first part places the practice of preceptorship into a theoretical milieu by presenting some of the education theories that relate to it and to the assessment done during preceptorship (section 2.2). The second part is a synopsis of the literature that relates to the perceptions and experiences of preceptors in relation to assessing students (section 2.3).

2.2 Theoretical considerations

2.2.1 Learning theories for preceptorship

Preceptorship in health professionals' education takes place in the setting of workplace based learning (WPBL). Workplace based learning can be explained by various theories of teaching and learning including, behavioural theories, cognitive theories and social contextual theories. The social contextual theories are of particular relevance because the workplace is a social setting with context and relationships that form the matrix within which learning takes place. The social contextual theories propose that new knowledge and skills are acquired through imitation and reinforcement of the observed Behavior by rehearsal (Torre, Daley, Sebastian & Elnicki, 2006). The key social contextual theories that are relevant to WPBL are the social cognitive, social constructivist and social cultural theories (Morris & Blaney. 2014).

According to social cognitive theory, learning happens within a social context and is the result of a continuous, dynamic, and reciprocal interaction between personal, environmental, and behavioural determinants. The personal factors include previous experiences, perceptions, values, attitudes, goals and knowledge. Environmental factors include external influences that may act as enablers or hindrances to achieving learning goals. The behavioural determinants are a by-product of personal and environmental factors, but are also considered to have a reciprocal influence on these two determinants. This theory is attributed to Bandura who further asserts that the influence of each of the three factors will vary for different activities, individuals and circumstances. (Kauffman & Mann, 2014).

Social constructivist theory is attributed to Lev Vygotsky. It focuses on the construction and application of knowledge in social contexts. The social environment plays a critical role in the development of knowledge. Learning is seen as a collaborative process, and knowledge develops from individuals' interactions with their culture and society. The individual is an active participant in the learning process. This theory also posits that cognitive dissonance is the stimulus for learning. This

refers to the tension resulting from having conflicting thoughts at the same time which compels the mind to acquire new thoughts or to modify existing beliefs in order to reduce the conflict (Thomas, Menon, Boruff, Rodriguez, & Ahmed, 2014).

The socio-cultural theories of learning are influenced by social constructivism. They emphasize the role of the wider community and contexts of learning. They are mainly based on the work of Lave and Wenger. The key tenets of these theories are that: learning is situated (shaped by context); learning is mediated (through various tools); learning is historically and culturally influenced (Morris & Blaney, 2014).

These theories can be seen in play in the BMCP program at the hospital sites. There, a social environment is created by the students, the preceptors and the rest of the hospital community within which teaching and learning takes place. As seen in the social cognitive theory, the personal factors in the students and the environment (including preceptors) can be said to interact reciprocally and result in behaviours (learning). The students are active participants in the learning process and construct knowledge during the interactions at the hospitals (social constructivism). The learning of the students in these hospitals is greatly influenced by the cultures and the unique characteristics of these hospitals (the context).

Experiential learning theory is another useful way of viewing preceptorship. It can be defined as "the strategic, active engagement of students in opportunities to learn through doing, and reflection on those activities, which empowers them to apply their theoretical knowledge to practical endeavours in a multitude of settings inside and outside of the classroom" (Bates 2015). It is built on the works of Kurt Lewin, John Dewey, and Jean Piaget, with Kolb as a more recent proponent of the theory. According to Kolb & Kolb (2009), experiential learning theory is based on six tenets: Learning is best perceived as a process, and not merely as an outcome; All learning is re-learning; Learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world; Learning is a holistic process of adaptation that involves the whole person and not just cognition; Learning results from synergistic transactions between the person and the environment; Learning is the process of creating knowledge. Kolb (1984) asserts that "Learning is the process whereby knowledge is created through the transformation of experience." Kolb proposes two activities that are key in the learning process: grasping experience and transforming experience. The grasping experience has got two components: concrete experience and abstract conceptualization. Transforming experience also has two components: reflective observation and active experimentation (Kauffman & Mann 2015). In the experiential learning cycle, concrete experiences lead to observations and reflections. When reflections

are assimilated and distilled they lead to abstract concepts which can then be actively tested and lead to further development of new experiences. One or more of these activities can be used in learning, however, learning is augmented if all four are used in the learning process. This is figuratively depicted in the experiential learning cycle in figure 1 below. The role of the preceptor is to provide an environment where the learners can have concrete experiences and guide them through the experiential learning process.

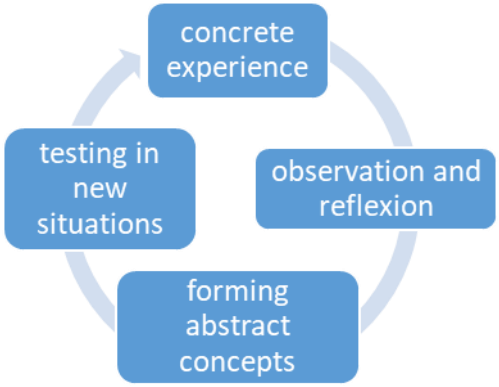

Figure 1 The experiential learning cycle

2.2.2 Assessment by preceptors

Assessment is a key aspect of health professionals' education since it defines the quality of the educational processes and also shapes the learning and behavior of both students and educators. (Schuwirth & van der Vleuten, 2011). It is now widely believed that Assessment drives learning (Wormald, Schoeman, Somasunderman & Pen, 2009). Workplace based assessment (WPBA) is one of the best ways of assessing competence in the medical professions (Epstein & Hundert, 2002). Govaerts & van der Vleuten (2013) argue that WPBA is socially situated and potentially value laden since it is influenced by the experiences, meanings, intentions and interpretations of the assessors. This, they argue should be factored into the planning, execution and interpretation of WPBA for it to have better meaning. In this section we look at literature regarding the purpose of assessment, the psychometric theories of assessment and George Millers pyramid for the assessment of clinical competence.

2.2.2.1 Purpose and timing of assessment

Assessment activities are traditionally seen to fulfil one of two purposes, formative or summative. Formative assessment refers to ongoing assessment whereby educators gather information through assignments, tests, theses, projects, oral exams and various other means, over the course of instruction so as to adapt the teaching in ways that would meet students' needs while making progress toward a

long-term objective (Black & William, 1998). Formative assessments are used for guiding future teaching and learning, for providing reassurances to the students of their progress, and for promoting reflection on how teaching and learning is taking place. Providing comprehensive feedback for the students is a key focus of formative assessments (Ferris 2015). Summative assessments on the other hand make a final judgment about competence and fitness to practice or to progress to higher levels of training or responsibility (Suskie, 2009). Summative assessment can be seen as oriented towards assessing the final product, while formative assessment looks at improving the process towards completing the final product (Hernandez, 2012). Formative assessment is also referred to as assessment for learning while summative assessment is assessment of learning (Wood 2014).

Continuous assessment occurs during or throughout a course, while end of course assessment occurs at the end of the course. Continuous assessment enables student progress to be monitored during the course and plans can be made to help the student improve if necessary. They may serve both a summative and formative purpose. End of course assessments are typically summative. (Vergis & Hardy, 2009).

2.2.2.2 Psychometric theories of assessment

The psychometric theories of assessment focus on validity and reliability of the assessment process. Reliability in assessment means that any two raters would assign the same grade or numerical mark to the same piece of work (Norton, 2013). Tavakola and Dennick (2017) state that an assessment should be considered reliable only if a cohort of students would be consistently rank ordered if the assessment is administered under different conditions. They further argue that assessments that do not have an acceptable reliability may not be useful.

Suskie (2009) identifies four possible sources of error in regard to reliability in student assessment: the student, the assessment instrument, the assessment environment and the rater. The student may lack sufficient motivation to be serious about the assessment, may have a poor experience of the type of assessment being used, could have test anxiety, poor coaching, or have other physiological and psychological problems. The assessment instrument on the other hand may have test items that have been ambiguously worded, or the marking memo may be confusing and vague. From the environment point of view, having different environments for students taking the same test would produce errors and lead to biased assessment. According to Suskie (2009) there are several types of reliability errors (biases) that can be attributed to the rater. Central tendency bias comes about as a result of a rater keeping the marks of individuals in the middle of the rating scale. Leniency bias is an error that results from a rater giving mainly high marks. Severity error has to do with a rater giving mainly low marks.

The halo effect arises as a result of a rater's evaluation in one module or dimension being influenced by his or her perceptions of the student in another module or dimension. Several other forms of rater bias exist, including contamination bias, similar-to-me bias, rater drift bias, contrast effect bias, and first impression effect bias, to mention but a few.

Validity means that the assessment measures what it is supposed to measure (Norton 2013). Whereas the traditional taxonomy of validity views validity of a test as being composed of three main subtypes (content validity, criterion validity and construct validity), the unitary theory of validity views all validity as construct validity. The unitary theory of validity is based on the work of Messick (1995) and others before him, including Cronbach. To use the words of Downing (2003), 'construct validity is an investigative process through which constructs are carefully defined, data and evidence are gathered and assembled to form an argument either supporting or refuting some very specific interpretation of assessment scores.' Validity of a test from this point of view is an all-encompassing construct that has got five sources of evidence that can support or fail to support it: the content of the test, the response processes, the internal structure of the test, relationships of the test to other variables, and the consequential aspects of construct validity. Based on this theory, therefore, validity can be defined as "the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests" (AERA, APA, & NCME, 2014). To paraphrase this definition, when looking for validity, we ask ourselves the question, 'what evidence is there to support the conclusions that have been made from a test score?' A sound assessment must have sufficient evidence of being valid for the purpose for which it is intended so as to satisfy the multiple stakeholders that include students, educators, society at large, institutions, and future patients.

2.2.2.3 Millers model for assessment of competence

Miller (1990) proposed a classification of methods of assessment in health professions education into a pyramid with four hierarchical levels as a framework within which assessment could be viewed. At the base of the pyramid is 'Knows', followed by 'knows how', 'shows how.' and 'does' in ascending order. The assessment of 'Knows' is done through recall of factual knowledge as seen in multiple choice questions, essays and some oral tests. Assessment of 'knows how' is based on the application of knowledge to problem-solving and decision-making (Wass, Van der Vleuten, Shatzer, & Jones, 2001). As in assessment of the 'knows' this can be done through multiple choice questions, modified essay questions and oral tests applied to real life scenarios. Knows and knows how look at assessment at the level of cognition. The next two levels, 'shows how' and 'does,' assess behavior. 'Shows how' can be assessed through in vitro assessment of skills using objectively structured clinical examinations (OSCE), and standardized patients. Miller (1990) refers to standardized patients as the

most accurate substitute to actual clinical encounters. At the apex of millers pyramid is assessment of performance in vivo. This is done by direct observation of students in real life settings and forms the basis of assessment in the workplace. It can be enhanced by logs, videos and undercover standardized patients. (Ramani & Leinster, 2008). This pyramid reminds health professionals' educators that the outcome of training is supposed to be a graduate who can take their place in the workplace (does) and that knowledge is the foundation of the skills that are practiced. (David, Taylor & Hamdy (2013).

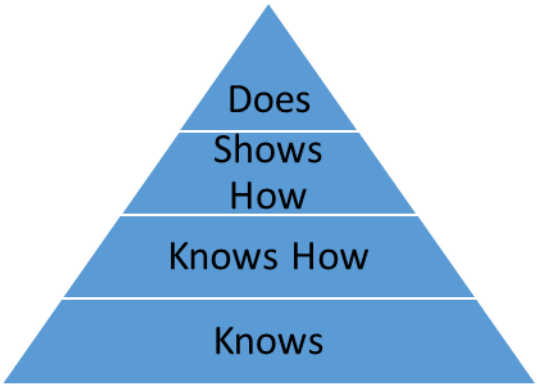

Figure 2: Framework for clinical assessment (Miller 1990).

In the BMCP program at WSU, preceptors assess students performing tasks in the clinical setting with real patients. Their role therefore matches the highest tier of Miller's pyramid for clinical competence, as depicted in figure 1 below, since it is the 'does' that is being assessed.

2.3 Preceptors perceptions and experiences of assessment

This section presents a synopsis of a review of the literature regarding perceptions and experiences of assessment by preceptors. The search was conducted in key electronic databases including PubMed, African Journals online (AJOL), and the Cumulative Index to Nursing and Allied Health Literature (CINAHL). In order to optimise the yield of the search, the following search terms were used in varying combinations: preceptors, mentors, practice educators, clinical educators, clinical education facilitators, supervisors, clinical supervisors, perceptions and assessment. The full texts of articles seen to be relevant to the area of research were downloaded and studied, and the findings thereof synthesized into this literature review.

The literature about experiences and perceptions of preceptors regarding assessing students reveals five major themes: the experience of making decisions to fail underperforming preceptees; the preceptor-preceptee relationship; support for preceptors in their role as assesors; preparation for the role of assessor; the tools of assessment. Each of these themes is discussed below.

2.3.1 Failing underperforming students

The difficulty of making decisions to fail underperforming preceptees pervades the literature. In his study among nurse preceptors in the United Kingdom, Rutkowski found that preceptors feel that giving a fail mark to a student means that they (the preceptors) have failed to provide an appropriate learning environment, use effective facilitation strategies and provide adequate feedback to the student, making them look incompetent as preceptors (Rutkowski, 2007). Duffy (2003) also found that preceptors were reluctant to fail poorly performing students because they felt it would cause friction in the relationships and reflect on their own quality of preceptorship. Hunt, McGee, Gutteridge, & Hughes (2016) found that preceptors who were faced with the decision to fail an underperforming student experienced negative emotions that included disappointment, frustration, dismay, indignation, discouragement, confusion and dejection and that the emotions were a result of the preceptors' fear of being labelled as ˙bad nurses' if they failed an underperforming student. They also experienced loss of confidence, anxiety and stress in these circumstances. Black (2011) found that many preceptors in the United Kingdom find it extremely difficult to fail a student as they feared not getting the required managerial support with this decision. They felt that the decision would be easier if there was support from the sending university. In South Africa, Meyer (2013) studied the preceptorship relationship in physiotherapy and found that subjectivity on the part of the preceptor made it difficult for preceptors to fail students who had previously been performing well.

2.3.2 Conflict

Conflict is a common experience in the preceptorship relationship. 100% of the sample of Mamchur & Myrick (2003) that was derived from departments of education, family medicine, nursing and social work at a Canadian university reported having experienced conflict with preceptees. However, the majority of the preceptors in this study also reported that the conflict was later fully resolved. Meyer (2013) in her study among physiotherapy preceptors and preceptees found that a key source of conflict was a result of preceptors acting in the dual roles of both mentor and assessor. The conflict was accentuated when a student failed. The conflict was not only in the relationship with the preceptee, but also an experience of inner emotional conflict in the preceptor – a dual conflict. Preceptors in Meyer's study also felt that students felt too intimidated to reveal their lack of knowledge to a person who would later assess them since, to them, it put them to a disadvantage. As a result, preceptors preferred the role of transferring skills over assessment of skills (Meyer, 2013).

2.3.3 Preceptor Support from the Training Institution

Support for preceptors is another major theme in the literature. The systematic review of summative assessment of clinical practice of student nurses done by Helminen, Coco, Johnson,

Turunen, & Tossavainen (2016) highlights the need for preceptor and faculty staff to meet in the beginning of the clinical practice period so as to have a common understanding of the assessment that will take place at the end. 57.5% of the participants in MCcarthy and Murphy (2010) reported receiving little or no feedback on their preceptorship role. A significant portion of this Irish sample also reported having never got support or appreciation from the hospital management. As noted above, Black (2011) found a desire among preceptors for faculty support when it came to judgements regarding underperforming students in the United Kingdom.

2.3.4 Preparation for Assessment

In the research by Palermo et al (2014), preceptors of dietetics and nutrition students across different practice settings in Australia felt that assessment is challenging and they had not been sufficiently prepared for the assessment role. In the absence of formal training, the preceptors developed their skills from peers, student feedback, interacting with university staffs, and their past experiences as students. Novice nurse preceptors in Malaysia used terms like disappointment, nervous, burden, unprepared, stressful, and worry to describe their experiences as preceptors mainly because they were not prepared for the preceptorship role (Enrico, Chapman, & Nsg, 2011). The literature underlines the importance of training of preceptors for them to fulfil their roles in the face of the various challenges they face. They need training in conflict management, performance evaluation and assessment, clinical teaching strategies, formulating constructive feedback, and how to match pedagogy to learning styles (Duteau, 2012). To this preceding list, Tan, Feuz, Bolderston, & Palmer (2011) add the need for training in teaching and learning theories, principles of adult education, communication skills, and values and role clarification.

2.3.5 Assessment Tools

Palermo et al (2014) also obtained preceptors' perceptions and experience with the assessment tools used. They found that tools that required ticking boxes (checklists) were perceived by preceptors not to capture competence sufficiently, especially when assessing professional attributes and behaviours like communication, negotiation, time keeping and leadership skills in the workplace. Portfolio style of assessment was favoured for demonstrating achievement of competence because it is student-led, student owned and has the ability to facilitate reflective practice and self-evaluation, and to document student progress (Palermo et al 2014). It also was in consonance with the preceptors' views of the importance of student-led development of competence. Calman, Watson, Norman, Redfern, and Murrells, (2002) found that there was a need to have evaluation forms that make assessment objective and clear.

2.4 Summary of literature review

In summary, the literature has shown a dissatisfaction among preceptors regarding the preparation that they get for the role of assessment, the support that they receive from the training institutions (university), and the tools that they use for assessment. There is much concern regarding the relationships with the students, and handling of poorly performing students. Thus far the literature did not address the issue of assessment and the perceptions thereof for preceptors of clinical associate students or similar cadres. Also, there was only one relevant study from South Africa (Meyer, 2013) that looked at assessment by preceptors. It was therefore pertinent to have a study that would focus on preceptorship with clinical associate students in South Africa since this is a new cadre being developed for the South African context. In the BMCP program, there are three different types of preceptors: doctors, nurses and clinical associates. None of the studies found in the literature review involved preceptorship by such a diverse inter-professional team.

CHAPTER 3

METHODOLOGY

3.1 Design

This was a qualitative study using a phenomenological approach. According to Merriam (2009), phenomenological research is well suited for studying affective, emotional, and often intense human experiences. It gives an understanding of social and psychological phenomena from the perspectives of the people involved. It brings deep issues to the surface and makes voices heard (Lester, 1999).

3.2 Sampling

A sample of nine preceptors was purposively selected, three from each of three training sites. Participants were preceptors who had been active in assessing clinical associate students irrespective of the duration of time they had been preceptors. Preceptors who had been involved in teaching but not assessing ClinA students were excluded from the study. The participants were identified by the WSU onsite tutors and the clinical managers at the hospitals. The sample size was based on recommendations in Groenewald (2004) who sees 2-10 participants as sufficient for phenomenological studies. The three sites for the study were Malizo Mphehle hospital, Rietvlei hospital and St. Barnabas hospital. Mthatha general hospital was omitted since it is a regional referral hospital and does not represent the typical district teaching hospital. Madzikane hospital was omitted because the researcher is the WSU tutor in charge of the teaching site and data obtained could be biased. We involved different cadres from different hospitals so as to enhance the credibility of the study.

3.3 Data Collection

The selected participants were told about the purpose of the study and what was expected of them as study participants. Those who indicated interest in the study were taken through the information leaflet and those that accepted to participate in the study went through the informed consent process which culminated in signing the informed consent form.

Semi structured interviews were conducted using an interview guide (appendix 1) whose development was guided by the literature reviewed. The interview lasted an average of ten minutes and fifty-four seconds. The shortest interview was six minutes while the longest was thirteen minutes fifty-eight seconds. The interviews were audio recorded with the permission of the participants, and transcribed verbatim by a third party.

3.4 Data analysis

The transcripts were reviewed by the researcher and corrections made where necessary to ensure accuracy. Data was analysed using the six steps of thematic analysis as described by Braun and Clarke (2006) viz. familiarisation with the data; generating initial codes; searching for themes; reviewing themes; defining and naming themes; producing the report.

Familiarization was done by listening to the audio recordings, reading the transcribed interviews and reading notes that were made during the data collection. This provided the researcher with a good knowledge of the content of the interview. The process of reviewing and correcting the transcribed interviews also improved familiarization.

The data was assigned initial codes which were open to modification as the analysis proceeded. Categories were developed from the codes that had a relationship to each other. These were further built into subthemes and themes. The initial themes were further revised into the final themes which the researcher has defined and given distinct names. The final stage of the analysis involved developing the research report. The process of data analysis was regularly shared with two peers involved in medical education research and practice so as to enhance the validity of the research.

3.5 Data Quality

Guba's criteria for quality in qualitative research as described in Frambach, van der Vleuten & Durning (2013) were used to assure quality in this study. The criteria are credibility, transferability, confirmability, and dependability. To this end, credibility has been enhanced through data triangulation by obtaining information from different cadres of staff at three different hospitals. Transferability has been enhanced by describing and interpreting the data in a manner relevant to the setting of preceptorship, and relating findings to the literature. This was further enhanced by doing purposive sampling. To increase dependability, and confirmability, the researcher regularly shared and asked opinions of two colleagues who are medical educationists during the research process. They examined the methodology of the study, sampled the transcripts, the coding tables that were developed and the final report. Issues with contention were further discussed and agreement reached. The feedback from the peers was incorporated into the research process and data analysis. The researcher also consulted the supervisor for this research assignment when he encountered issues in the field that could potentially have a bearing on the data quality. The researcher referred to notes made in the field during data collection to help better understand the data and its context. These notes also contained the researcher's reflexions about the research process, enabling him to have self-awareness and appreciate the impact the research was having on him and the possibility of him influencing the research process.

3.6 Ethical Considerations

Ethical approval to conduct the study was obtained from the Stellenbosch University Health Research Ethics Committee HREC reference # S17/09/180 (Appendix 3). The study was registered on the research website of the Eastern Cape department of health (ECDOH). Verbal permission to interview the preceptors was provided by the clinical leadership of the hospitals.

Informed consent was obtained from all the study participants prior to participation. Each participant received an information leaflet about the study. Participants who agreed to participate in the study signed an informed consent form which included all the basic elements of informed consent including that the study is voluntary, respondents can withdraw from the interview process at any time and that the interview will be audio recorded. A copy of the consent form for study participation and for audio recording is attached as appendix 2. To assure confidentiality, no names were used in the recordings and transcriptions. Audio-recordings were downloaded onto the researcher's computer and deleted from the audio recorder. Both the computer and the folder with the recordings are password protected. Each of the interviews was allocated a code which was used for the saved audio recording and the transcript. Participants in this report are referred to by these codes.

3.7 Summary

In this chapter, the Methodology of the study has been explained, with emphasis on process, maintenance of data quality and adherence to ethical principles. The next chapter will present the study findings.

CHAPTER 4

RESULTS

4.1 Introduction

This chapter presents the analysis of the data, showing the themes, subthemes and categories that were developed. These findings highlight the key issues that relate to how preceptors perceive assessment of ClinA students.

Ten preceptors were approached for the study and nine accepted to participate. The one who declined gave a reason of being too busy to participate. The interviews were conducted in February and March 2018 at three hospitals. The hospitals are here numbered A, B and C. There were three participants from each hospital. The participants are coded according to the hospital and the chronological order of the interview. Thus C1 was the first participant from hospital C and B3 is the third participant from hospital B. The hospitals are among the five hospitals involved in the decentralised training of clinical associates at Walter Sisulu University. Four participants preferred to have the interviews while they were attending meetings and trainings at the Mthatha Health Resource Centre and WSU Faculty of Medicine. The other five had their interviews conducted at the hospitals. All interviews were conducted in a private atmosphere to ensure confidentiality. In the case of the hospitals, they were done in consultation rooms at the OPDs. Interviews in Mthatha were done in offices at the health resource centre and the faculty of medicine. The average duration of the interviews was ten minutes and seven seconds. The longest was thirteen minutes and fifty-eight seconds while the shortest was six minutes.

4.2 Participant Characteristics

Five doctors and four ClinAs were interviewed. The doctors included three medical officers, a medical registrar and a clinical manager. The period the participants had been involved in training clinical associates ranged from seven months to six years. The average for ClinAs was one year and average for doctors was three years. Whereas the researcher had indicated in the research proposal that some of the participants would be nurses, no nurse was found to be involved in assessment at the sites selected for this study. The researcher also found that the turnover rate of doctors at one of the hospitals resulted in there being only one doctor who had the experience of assessing ClinA students, with most of the assessment being done by ClinAs working at the hospital.

4.3 Themes and Categories

Initial analysis led to the formation of seven themes. After review and further analysis, the data was condensed into four themes, with several subthemes and categories. The themes were assessment issues, student issues, preceptor issues and university issues and are summarised in table 1 below.

Table 1. Themes and Categories formed from the Data

Theme	**Assessment issues**	**Student issues**	**Preceptor issues**	**University support issues**
Sub themes and categories	• Conduct of assessment • Tools of Assessment ✓ Type of tools used ✓ User friendliness of tools • Reliability of assessment • Ease of assessment	• Experiences with poorly performing students • Conflicts with students	• Preceptor skills for assessment ✓ Preceptor training for assessment ✓ Source of skills for assessment • Satisfaction derived from assessment • Preceptor motivation	• University support for assessment

4.4 Assessment Issues

The theme of assessment issues had four subthemes: Conduct of assessment, Tools of Assessment, reliability of assessment, and Ease of assessment. Furthermore, the subtheme of tools of assessment had two categories: Type of tools used and User friendliness of tools.

4.4.1 Conduct of assessment

The conduct of assessment covers how and where assessment is done. The participants reported that they conduct assessment at the casualty department, the OPD and the wards. It is done during ward rounds, after hours call time, patient presentations, and routine consultation with patients. Students are assessed for clinical knowledge, history taking, examination skills, patient assessment and management, and procedural skills. Students are also assessed at the end of a clinical block:

'For example if they presented a patient to us, then we give them a score. Physically they have a book whereby we score them.' A1

'There are certain procedures that they are supposed to do during their clinical time in the hospital, so you teach them how to do it and they do it so usually … you score them how they did the procedure.' A2

'Well basically am involved in assessing the clinical students based on the clinical skills during the hospital rounds and everything.' B1

'Mostly it's the clinical approach to assessing patients and history taking, correct examination and how to do a procedure, and the management of the patient.' C2

'The final sort of score is given at the end of the program before they leave … and our input is channeled to our clinical manager.' B2

4.4.2 Tools of assessment

4.4.2.1 Types of tools

Participants reported that they base their assessments on tools found in the students' logbooks. They alluded to both the procedural and patient logbooks without describing them in detail. None of the participants made direct mention of the end of ward rotation assessment tool.

'I assess them using the procedure log books, checking their skills in performing clinical procedures and also check their history taking skills using the log books.' B3

'Physically they have a book whereby we score them.' A1

4.4.2.2 User-friendliness of tools

The preceptors also talked about the user-friendliness of the tools and the extent to which they are satisfied with them. Participants who were satisfied with the assessment tools described them as easy to use, friendly, and quite helpful. Two of the ClinAs indicated that the tools were easy to use because they were trained using the same tools.

'Very friendly to me since I was taught or trained with the same book.' B3

One participant indicated that if they had any issues with the tool, they would sort it out at the beginning of the year with the help of the WSU staff.

'They are usually easy to use but if we have questions we would have tackled questions right from the beginning of the year because, like I said, the WSU staff they come to discuss it.' A1

The tools are not only easy to use but also make assessment easy.

'... The aspect of assessment that we do is purely driven by their log book so there is good direction and a good ummm, how should I say ummm ...what you expect it to be, you just look at the book and you know what you are meant to oversee.' C2

Those that were not satisfied with the tools complained about them being too simplistic, giving a narrow range of possible scores, being inaccurate, and being subjective. Some indicated that they preferred the tools to be more detailed:

'They usually have just simple questions like satisfactory, excellent, poor, not a very big range of answers that you could give.' C2

'Checklist would be a very helpful tool, like in the OSCE there is something of that sort that would help to make it easy for you to score the student according to how they did this and how they did the other and all that. But then you see if you had to score just in percentages, like 80% but you don't know how you got to that 80%.' C1

'I think the tool is fine to just get an overall idea as to how the pupil is but obviously I doubt it will give you a very accurate sort of level skills that the individual has.' B2

In spite of the misgivings about the tools, there is a belief that the tools have made students work harder because they know they will be assessed:

'But it has encouraged students to work harder at least because they have that assessment' C2

The levels of satisfaction with the tools present a mixed picture as seen above. The participants that were dissatisfied were mainly from hospital B and C.

'... but if we have questions we would have tackled questions right from the beginning of the year because, like I said, the WSU staff they come to discuss it.' A1

4.4.3 Ease of assessment.

Participants talked about the extent to which they found assessment difficult. There was a mixture of opinions and experiences across the sites in this regard. Those that found assessment to be easy attributed the ease to the use of logbooks, enthusiastic students, students who perform well, and having a small number of students who are easy to monitor:

'I don't think it's a difficult task mainly because the aspect of assessment that we do is purely driven by their log book so there is good direction.' B2

'What makes it easy is as a student like you, you get those enthusiastic students who are always willing to learn, are always willing to do everything you need to give everything, so they make it easy for you to assess them because they always do this thing and they have come to a point that they almost perfect the skill.' A2

'It's not that difficult to assess them because some of them they are always present and active, eager to learn those procedures so it gets easy to assess those who attend regularly except for their absenteeism for others.' A3

'So it's very easy for us to know these students personally and to follow up on how they are doing. It's like this small group which you can easily monitor.' B1

Those that found it difficult indicated that the students were too many, and students had a tendency to demand for marks that they did not deserve.

'Assessing them hasn't been easy at all, there are so many of them.' C2

'Most of them will want to have a good mark even if they know that they are not up to scratch with other student.' C2

'It's difficult some times because you get the students who always prepare to work with you so they are always with you so they kind of expect favors when it comes to giving them marks because you spent a lot of time with them and they are always with you. And they think that even regardless of how they performed the skill you have to give them a higher mark.' A2

One participant attributed the difficulty in assessment to lack of formal training in assessment.

'not very easy, reason being we were never given, we were never trained on what to exactly check and how to assess the clinical associates so that's why it's not easy.' B3

4.4.4 Reliability of assessment

Concern over the reliability of assessment was raised by three participants. One participant felt that the assessment was prone to subjectivity.

'I find that it's very subjective, it really depends on the individual you are dealing with and the kind of person that you are. ... For instance if someone is my friend, although it shouldn't happen, it does happen to tell you the truth. Telling someone to give someone marks between one and five, if you don't like them in a certain way you lean towards the other way.' B2

Two of the participants felt that the assessment done was not necessarily a true picture of the students' knowledge and skills.

> *'I think the tool is fine to just get an overall idea as to how the pupil is but obviously I doubt it will give you a very accurate sort of level skills that the individual has.'* B2

> *'You cannot base your judgement on just your assessment alone because some of them you find out that this one is a very good person, good in the skills that was taught but when it comes to assessment, when they know that you are assessing them, for example when they are supposed to present they are not doing well, it does not necessarily mean that they are not good at this.'* A1

One participant felt that the students memorise the assessment tool and already know what to expect and therefore this was more like copying.

> *'They read the tool before we assess them because they have the tool with them. If we could have something that was not at their exposure, then we could examine them according to something that they don't know about but only we know about that comes out only during examinations. Because it's kind of copying when you know what you are going to be asked or what is expected of you, you are kind of like copying.'* C2

4.5 Student related issues

The preceptors talked about issues in assessment that related to students. This included experience with poorly performing students and conflict with the students.

4.5.1 Experiences with poorly performing students

Dealing with poorly performing students evokes negative emotions among the preceptors. It also makes the preceptors feel that there is something they never did right during the teaching. It gives feelings of guilt. Preceptors also found it hard to fail a poorly performing student. The preceptors described their emotion as 'feeling bad', 'sad', 'annoying,' and 'discouraging.'

> *'I always feel bad giving low marks knowing that as someone who has been teaching these students, probably there is something that I missed out for this particular student or something wasn't clear. It's hard, it's hard failing any student. Even when you know that the student is capable of performing badly.'* B1

> *'It's a sad moment, especially if you are examining candidates that you have been teaching for a long time. So seeing that somebody you have taught has failed, for me I feel bad. For me as*

a teacher, it's my own. As far as am concerned if I teach you, you must pass so if somebody I have taught comes and fails it's sad.' A3

'But then there some moments … some discouraging moments. okay I just taught you this and now that am assessing you, it's like I have never ever seen or said anything to you like, it's so annoying if I can put it that way. But you have to like fail the student because they became too careless, like if you taught something, and student does not catch it, and when you assess, you find that this person doesn't care, it's so discouraging.' B1

Some preceptors make every effort to ensure that the students don't get a low mark.

'You don't want to give a student a low mark, sometimes you may do that. That's why I say we help them when they are doing the procedures and all that, so that like they can understand. Because we can't have them scoring very low marks.' C1

'Like you said the poorly performing students they give them another chance, okay and most of the time they improve.' A1

In addition to negative emotion, poorly performing students tempt preceptors to go against their own principles of assessment.

'Poorly performing students: it's quite sad you know … so in a way that's when you see you might not know even when you are going contrary to the rules, sometimes you find yourself sort of prompting.' A3

A preceptor described the need to approach the poorly performing student with subtlety, tact and individualizing the approach to each student.

'I think it is something that needs to be done with tact there are a lot of factors involved in how you approach it because not every individual is the same not every individual will take criticism the same way so with time you get to know each individual student and based on your relationship that you have built with them and where their shortfalls may be you find an appropriate way to address it. …. So sometimes you might have to be subtle.' B2

This preceptor also underlined the importance of objectivity even when students perform badly since their education has to be taken seriously. He also insisted on giving feedback with the bad result and helping the student to improve.

'I mean, we understand that it is something that we need to take seriously, this is their education and you cannot take it lightly. So when it comes to assessing it is best to be as objective and as

strict as possible. Not for the sake of being spiteful or harsh but for the betterment of their education, So if you feel someone is lacking somewhere it is best to address it and if you are going to give him a certain score it is always appreciated if you give a sort of feedback or your opinion as to why you gave them that score and then you see how you can improve it thereafter.' B2

Some preceptors put the blame of poor performance squarely on the shoulders of the students and did not take any of the blame onto themselves. They used words like 'careless,' 'did not bother,' 'skip classes,' '

'Sometimes some of them they skip classes and maybe that skill is taught or when they were lectured they were not around and they never bothered to follow up themselves, so when you asses them, "how could this have been," you understand, so you feel discouraged sometimes.' A1

'It's so annoying if I can put it that way but you have to like fail the student because they became too careless.' B1

Some preceptors however report having no challenges with assessing the poorly performing student.

'I don't get any challenges assessing poorly performing students. Yeah I don't get challenges at all'. C3

4.5.2 Conflict with students.

Participants were asked about their experience regarding conflict with students in the process of or as a result of assessment. The responses ranged from no experience of conflict at all, efforts to avert conflict, to conflict attributed to various causes.

A number of participants reported no conflict resulting from assessment. One participant said they take steps to avert conflict through giving assessment feedback and discussing the assessment with the students, thus taking the student along the journey of learning and assessment.

'I have not had any conflict.' A2

'No, and the reason is not that we have taken a paternalistic attitude to it. But because of the fact that when you assess them especially after a skill or after presentation the best time to assess them is immediately after and when you give them to discuss, you give it to them, what

they feel about this, and most of the time they don't argue, there has never really been a conflict. Because we take them along.' A1

Another reported that the students identify with him as a ClinA and this reduces the chances of conflict since it becomes easier for them to discuss.

'I think for me as a clinical associate it's not much of a challenge because they, I think they have this perception that we are approachable. They may at a certain point get scared of the doctors but us as the clinical associates they are more open with us. So if you take a student and sit them down wherever the challenge is and help, yes, they are easy to open up.' C1

Where there has been conflict, it has been attributed to students' expectations of the assessment process. Some students for example expect to be assessed even if they have been absent from the clinical experience:

'Sometimes I do experience challenges especially some students they just get absent, they don't come to OPD, they may come once or twice and you are expected to assess and yet you don't even know that student because they don't always go to OPD.' B3

They also ask the assessors for more marks than the preceptors feel they deserve during an assessment, leading to conflict:

'Yes. Students will ask you to please give them a higher mark and you say no. ... You see tears and frustrations but in the end it has to be fair if someone is to pull-up their socks if they are lagging behind.' C1

Some conflict has arisen because the preceptor is seen as being very strict during assessment:

'Yes, yes. I did. When assessing students, the feedback I got wasn't so nice. Apparently am told from one of them I was very strict, they were not comfortable with me because I was just too straight so they were so scared of me. But I was doing what am supposed to do.' B2

'It's difficult some times because you get the students who always prepare to work with you so they are always with you so they kind of expect favors when it comes to giving them marks because you spent a lot of time with them and they are always with you. And they think that even regardless of how they performed the skill you have to give them a higher mark.' A3

4.6 Preceptor Issues

The theme of preceptor issues includes preceptors' skills for assessment, satisfaction derived from assessment and motivation for assessment. The subtheme of skills for assessment was subdivided into two categories: training for assessment and the source of skills used by the preceptors.

4.6.1 Skills for assessment.

Preceptors talked about whether or not they had received any training for assessment and what their source of assessment skills is in the absence of formal training.

4.6.1.1 Training for assessment.

All the preceptors reported that they had had no formal training for assessing the ClinA students.

'I didn't really go to a proper training to be able to assess a student.' A1

'We were never trained on what to exactly check and how to assess the clinical associates. ... We were never trained, the university is not involved in teaching us how to assess the students.' B3

'There has not been any formal teaching. ... Apart from the initial Instructions given.' B2

4.6.1.2 Source of skills for assessment.

In light of the absence of training, participants spoke about the various ways of making up for the lack of training. The various sources of the knowledge and skills for assessment are mentioned below:

Some participants depended on their inherent abilities, stating that the skills of assessment come naturally.

'Just from my knowledge of what I was supposed to do.... It just comes naturally.' A1

One participant uses previous experience and training as a high school teacher.

'Fortunately for me I was once a teacher. ... So ... scoring is not that much of a problem for me.' C1

Some participants received a few hints for assessment at the beginning which they built on over time.

'It's just that someone shows you that this is how you do and you just keep following , it's like you are in-serviced, something like that, not exactly formal training.' B1

'There has not been any formal teaching. … Apart from the initial instructions given.' B2

'Of course in the beginning we made some mistakes, we were too strict on them but as time went by over the years we realized that no.' A1

A number of participants reported that they depend on their previous experience as students.

'I have been there before, I knew what was expected of me as a student at the time when I knew that I had to do this course properly in order to get a mark. … I didn't really go to a proper training to be able to assess a student, just from my knowledge of what I was supposed to do.' A3

'Taking from your own experience, and from your own feelings on how you were treated you find that you try to be as fair as possible, that is the best training that we could have.' C2

Participants recommended that there be formal training for preceptors.

'So, if ever we could get probably a day or a few hours training of telling the doctors of how to properly assess, to conduct an assessment of students.' A2

4.6.2 Satisfaction derived from assessment.

Most participants reported that assessment is satisfying for various reasons as indicated below:

It is a reflection of the work they have been doing with the students.

'Yeah I do get satisfaction from it because what really culminates into assessment is what you have done for them over some weeks or over some days.' A1

Assessing students is part of their duty and is an honor

'I can say it's quite a fulfilling experience because the reason as to why I was transferred here was for me to find clinical associate students to train and to assess so I have been very honored to be involved in that.' B1

Assessment improves teaching skills

'so it can create room for you to improve your teaching skills so the next group coming, you use those experiences of where people have made mistakes to give them as an example so that they don't repeat the same thing, so in general being part of the assessment is something that, its natural it's quite fulfilling and has helped me to improve subsequently.' A3

'I feel very happy being involved in training of clinical associates (mmm) since am a clinical associate myself so, hmmm, I feel like it's also learning curve for myself because it reminds me of what I used to do as a student and I have always met very active students who are always eager to learn and they want to know the procedures in the hospital so I feel very happy.' B3

Students who perform exceptionally well bring much satisfaction.

'I was assessing, I think it was for a procedure this time, and the way he was so fine and I was like 'this student is doing better than myself as a professional' you see. But then I was not jealous but I was so proud, it's so rare to find such a student, someone who is dedicated, you get to see how dedicated a child is and how hungry they are for this.' A1

'You see that this student is really very good and if by chance you have the opportunity to assess such, it makes you feel good. Because some of them they are scoring all the marks there, you understand, you feel happy within yourself that at least this will be a good ambassador to this institution.' A1

Students love the preceptors' teaching and assessment.

'Getting students who would like to work with you because they love how you teach them or yeah they love how you teach them and assess them.' A3

Passion of the teacher determines the fulfillment obtained.

[Assessment] *'Is fulfilling especially if you are a passionate teacher.'* A3

Some preceptors however had mixed feelings. They found assessment challenging but also satisfying, the main satisfaction coming from the improvement that they see in the students over time.

'Not much satisfying. To me it's a challenge, something I said I would do, but it has been fun interacting with the students and seeing their level of progress as the years go by, as the terms go by and you see them improving academically and skills as well. So it's quite satisfying to see the progress of the students.' C2

A few preceptors reported unsatisfying experiences in regard to assessment. These included experiences with student absenteeism and badly performing students.

'I don't have a bad one except for absenteeism that I have just mentioned otherwise the students are always fine. It's not that difficult to assess them because some of them they are always

present and active, eager to learn those procedures so it gets easy to assess those who attend regularly except for their absenteeism for others.' A3

'It's like I have never ever ever said anything like this to you like, it's so annoying if I can put it that way but you have to like fail the student because they became too careless.' B1

4.6.3 Motivation for assessment.

The preceptors are motivated towards assessment and desire that it be done better. The motivation emanates from various sources including a sense of duty, an inner drive to teach students, a sense of responsibility, and a source of self-development.

'I mean, we understand that it is something that we need to take seriously, this is their education and you cannot take it lightly.' B2

'I can say it's quite a fulfilling experience because the reason as to why I was transferred here was for me to find clinical associate students to train and to assess so I have been very honored to be involved in that.' B2

'... So in general, being part of the assessment is something that it's natural. It's quite fulfilling and has helped me to improve subsequently.' A3

4.7 University support issues

The theme on university support issues looks at the efforts by the university staff or relevant university department towards helping the preceptors to perform assessment of the ClinA students. In this regard the preceptors' responses show a heterogeneity across the sites. Some participants indicated that the support was sufficient.

'They do support us adequately because from time to time they come to brief us, to lecture us the trainers basically. They give us tips on assessment and everything, what to look for and what not to look for periodically.' Participant A1

'They are supportive because they always tell us that we should assess the students thoroughly and with no favors because they really need to know if they are up to standard with the practical work.' Participant A2

'They are doing very well especially in regard to these clinical associates programs, because for some of us coming from the center there is nothing like this middle cadre so we find it difficult to sort of align ourselves.' Participant A3

It should be noted that these preceptors were all from hospital A. All participants from hospitals B and C indicated that the support was not sufficient or was absent all together.

'I feel I don't get any support as I said that we were never trained, the university is not involved in teaching us how to assess the students.' Participant B3

'They don't interact at all, hardly interact. When they are having the tutorials we are never there, because we have our own things to do in the hospital.' Participant B2

'In terms of assessing, I can't dwell much on that one because they are not around when we are assessing the students.' Participant C3

'Sometimes you can have some concerns but someone from the university is not around that time so it gets difficult to upraise some of those issues.' Participant B1

'Not a lot actually. They just believe that as a good doctor and as a reliable person you will do a good job. But when you think about it they are not really hands on with assessment you know, they trust that you have to assess the student, they trust, it's a trust process more than support. Fortunately we have not had a bad bunch of students so it has been easy flowing.' Participant C2

'Sometimes we talk about the performance and how we assess them and all that although it's never something formal but you just talk to the person and discuss some of the issues of student assessment.' Participant C1

Preceptors feel they do not know what the university expects of them and they desire the university to make this clear to them.

'It's not only the procedure books. There are those end of year, end of term assessment that we have to do. … They may seem straight to the point but we need to know how we are supposed to assess the students, like university's part of how they like us to do the assessment.' A2

The preceptors gave several examples of how they would want the university to support assessment. This mainly centred on formal training and the presence of university staff during assessment.

'So if ever we could get probably a day or a few hours training of telling the doctors of how to properly assess, to conduct an assessment of students because we also get those , it's not only the procedure books there are those end of year, end of term assessment that we have to

do after the students. They may seem straight to the point but we need to know how we are supposed to assess the students like university's part of how they like us to do the assessment.' A2

'but I feel that if for example we are going to assess students, we can have like just a formal sit down with a person from the university, someone who understands how it works so that we can also be clear on what to look for.' B1

'... If I assess a student, at least one person from WSU must be there.' C3

4.8 Summary

This chapter has discussed the results of the analysis of the participant interviews under the four themes, the subthemes and categories. The next chapter builds onto these findings by discussing them in light of the literature.

CHAPTER 5

DISCUSSION

5.1 Introduction

In this section, key issues that have arisen from the results are discussed with reference to the literature. The discussion is arranged according to the themes that emerged in the results.

5.2 Assessment related issues

5.2.1 Conduct of assessment.

The findings show that the preceptors are actively involved in training and assessing the students at the district hospital training sites. They view student assessment as an important day to day activity and show a high level of motivation whose source is intrinsic as opposed to extrinsic. De Villiers et al (2017) underline the importance of this type of enthusiasm and motivation as a factor for the success of decentralised health professionals' education. The preceptors' responses also suggest that the district sites provide a good opportunity for training and assessment of students. The range of skills being assessed is broad and includes clinical knowledge, history taking, examination skills, patient assessment and management, and procedural skills. The hospital training sites can also be seen to be ideal for experiential learning since they provide the concrete experiences required to trigger the experiential learning cycle.

Each of the sites has at least one clinical associate involved in training and assessment. This cadre has experienced what the students are now going through and is able to empathise. The empathy is seen in the responses of the ClinAs regarding the tools of assessment and relationships to students. They report that students easily identify with them, and they understand the tools because they used them as students. The involvement of doctors in training and assessment denotes an acceptance of this new cadre by the health care system. This is all the more important because ClinAs are supposed to work under the supervision of doctors in practice as discussed in Doherty, Couper & Fonn (2012).

There were no nurses involved in assessing ClinA students at the three hospitals in this sample contrary to what had been expected. This is a gap in the teaching-learning-assessment continuum since many of the procedural skills that ClinA students learn in the clinical setting are performed and taught by nurses. It is possible that their absence is a result of variations in implementation of the ClinA program such that nurses are involved in assessment in some hospitals and not in others.

5.2.2 Tools of assessment.

None of the preceptors reported difficulty in using the tools, but rather the tools are seen as easy to use. This explains why the preceptors have been able to conduct assessments over the ten years

of the program without any training. Simple, easy to use tools also save time spent on assessing students, thus allowing the preceptors to do their primary job. Like the sample of Palermo et al (2014), some of the preceptors prefer tools that would capture more than what is provided for in the current tools. The need for objective tools is also similar to what was found in the study of Calman et al., (2002).

5.2.3 Ease of assessment

A number of preceptors found assessment to be easy mainly due to the enthusiasm of the students and the assessment tools. Having user friendly tools compensates for the lack of training. It ensures that assessment can be done during the clinical exposure of the students. Only one preceptor reported lack of training as a cause of difficulty of assessment, underlining the need for training. Student demand for higher marks also featured as a cause of difficulty in assessment. They push the preceptors to compromise their values and quality of assessment and contribute to the lack of reliability of the assessment. This calls upon the preceptors inner resources to be able to remain objective and to make hard decisions.

One preceptor experienced a high number of students making it a difficult task assessing them. In view of the fact that this is the only preceptor that reports a high number of students, it may suggest a variable distribution of students between preceptors, or between sites. It may also represent a difference in preceptor perceptions in regard to what size of group a preceptor can handle.

5.2.4 Reliability of assessment

The possibility of errors in the preceptor assessment features in the results. Govaerts and van der Vleuten (2013) have stressed the importance of validity in work place based assessment (WPBA). Norcini and Burch (2007) further underpin the need to ensure that assessors in WPBA are able to ensure validity and accuracy of the assessment. As noted earlier, Suskie (2009) points out that error in regard to reliability in student assessment could emanate from the student, the assessment instrument, the assessment environment and the rater. The results of this study highlight each of these areas as a possible source of error: Both B2 and A1 alluded to the assessment not necessarily being a true reflection of the abilities of the students, since the students could be affected by the environment of assessment. Preceptor B2 indicated that subjectivity on the part of the rater is highly likely in the assessment of ClinA students. The raters (preceptors) are not trained to assess. They report a lack of knowledge of what is expected of them by the university. Assessment has been left to the creativity, interpretation and discretion of individual raters. This is compounded by reports of preceptor reluctance to fail poorly performing students and students demanding for higher marks, pushing the

preceptors to compromise their values and the quality of assessment. This shows that the preceptors feel that the assessments that they conduct are prone to bias and echoes the need for rigorously assuring reliability in the WPBA settings.

5.3 Student related issues

5.3.1 The preceptor-student relationship

The relationship between preceptor and preceptee is vital and critical to the success of preceptorship. Foley, Myrick, and Yonge (2012) state that the formation of positive working relationships between the student and preceptor determine the success of preceptorship. Cuncic, Regehr, Frost, et al. describe it as 'a critical component of teaching.' Similar to the findings of Meyer (2013) and Mamchur & Myrick (2003), some preceptors in this study experienced a strain in the preceptor-preceptee relationship emanating from conflict. The conflict arises from the demand for higher marks than is deserved, as seen in the case of students who expect a high mark just because they spend a lot of time with preceptor A3. Furthermore, some preceptors experienced dual conflict similar to that described by Meyer (2013): The conflict between preceptor and student and an inner conflict for the preceptor. The inner conflict manifest as feelings of guilt that some preceptors get when they assess poorly performing students. They feel that it is their fault that the students perform badly, that something went wrong in the teaching process. This was reported by A3 and B1 among others. In contrast, A1 and C3 do not experience this inner conflict because they attribute poor performance to the students. They expressed no hesitation in giving the low marks they felt the students deserved.

Some preceptors have developed mechanisms for warding off conflict with the students. Allowing students to discuss the assessment outcome gets them involved in the process and makes it easier for them to pursue improvement. Conflict is also prevented by fostering a good environment which provides a bridge over which difficult issues can be discussed with the students. In the case of preceptors who are ClinAs, this bridge seems to be easier to build as reported by C3.

5.3.2 Poorly performing students

The reluctance to give a low grade to a poorly performing student emerged strongly. Preceptors do all they can to avoid giving a low mark e.g. prompting the student, giving them a second chance to do a procedure, and helping the student to do the procedure. Only a couple of preceptors indicated that they would fail a student that deserved to fail. This goes back to the discussion on the reliability of assessment. These findings are similar to the findings in Black (2011). One participant mentioned that some previously well performing students may not do well in an assessment and so the bad performance may not necessarily be a true reflection of that students abilities. This borders on the hallo

effect seen in Meyer (2013) and further discussed by Suskie (2009). It was also noted that some preceptors attributed poor performance of the students to their own shortcomings in teaching. There were preceptors however who clearly attributed poor performance to the students themselves and expressed no hesitation in giving the low marks that the students deserved. This later view that seemed to be devoid of affect was not captured in the literature that was reviewed for this study.

5.4 Preceptor related issues.

5.4.1 Skills for assessment.

There is a conspicuous absence of training of preceptors in assessment. This leaves the process to the individual's interpretation and understanding of what needs to be done. It is inevitable therefore that there will be heterogeneity in the assessment of students from one assessor to another and from site to site. As mentioned earlier, it also brings the reliability of assessment into question. Assessment that has a summative purpose should be conducted by trained assessors because it is high stakes. Burns (2006) states that preceptors need to be familiar with the training curriculum of the course the students are doing, in addition to the evaluation tools that are being used. This familiarity is absent in the BMCP program at WSU.

Preceptors have shown adaptability to the lack of formal training for their assessment role by calling upon various methods to fill in the gap. The methods vary by preceptor, but most of all they depend on previous experiences and personal judgement. This represents a determination and enthusiasm on the part of the preceptors to conduct their role, even without receiving material benefits. The preceptors however do not feel entirely comfortable in this role and so they desire and recommend that there be training for them to be more effective.

5.4.2 Satisfaction from assessment.

Assessment was generally found to be satisfying. Most of the satisfaction and frustration, emanate from viewing the outcome of assessment as a product of the teaching that had been done. From this angle the preceptors regard these outcomes to be a reflexion of their teaching efforts. Resultantly, good results cause positive emotion while poor results cause negative emotion. Some of the satisfaction came from being validated by the students as in the case of the preceptor who got satisfaction because the students loved her teaching and assessment. For some it was a fulfilment of a goal, thus making it an honour to assess students. The satisfaction among the participants also echoes the findings of De Villiers et al (2017) who found that preceptors at decentralised training sites benefitted through greater job satisfaction, and positive impact of the students on the preceptors, among other things. The reciprocal interplay of the triad of interacting factors explained in the social cognitive

theory above (Kauffman & Mann, 2014) is seen in this case. The personal factors of the students are acted on by the preceptors (environmental influences) resulting in a behaviour (learning and the outcomes of assessment). The preceptors are emotionally influenced by the behaviour and are motivated or demotivated to influence the students further.

Participants in this study had emotions similar to those in Hunt, McGee, Gutteridge, & Hughes (2016). The verbal expression of emotion could have however been limited because English is not the first language of these respondents. Thus whereas the sample in Hunt, McGee, Gutteridge, & Hughes (2016) had seven adjectives to describe their emotions, this sample only had four in that regard. Feelings of guilt for poor performance also existed similar to what was seen in Rutkowski, (2007).

5.4.3 Motivation for assessment

Motivated preceptors are an imperative for successful implementation of decentralised training (De Villiers et al 2017). The responses of the preceptors in this study show that they are motivated towards assessment and desire that it be done better. The intrinsic nature of the motivation is indicative of a potential for longevity. The preceptor motivation and satisfaction seen in this study are important factors in the success of teaching and assessment in the BMCP program.

5.5 University support for assessment

The preceptors reported their experiences relating to the extent to which they are engaged by Walter Sisulu University. Across all the sites there is a conspicuous absence of training for assessment. None of the preceptors reported ever receiving formal training from the university to conduct assessment for ClinA students. As a result, they depended on a variety of sources for skills of assessment. This is similar to what was found by Palermo et al (2014), Enrico *et al* (2011) and Blitz et al (2018). It is easily conceivable that this would lead to differences in understanding, interpretation and appreciation of the assessment tools and assessment process as a whole. Assessment that has a summative purpose should be conducted by trained assessors because it is high stakes. Burns (2006) states that preceptors need to be familiar with the training curriculum of the course the students are doing, in addition to the evaluation tools that are being used.

Ongoing support from the university varies by site as seen from the preceptors' narratives. Whereas the university staff at hospital A are in constant touch with the preceptors and regularly update and motivate them towards accurate assessment, the staff in hospital B are reported to not interact at all. Some informal support exists at hospital C but that too is not considered sufficient. This result is slightly different from that of MCcarthy and Murphy (2010) who found a homogeneous lack of support. Following on this lack of support is a cry for help from the preceptors. They want to be helped

to do a better job. They wish to understand what the university expects of them, to be trained in assessment, and to have a university staff with them during at least some of the assessments. This echoes the assertions of Helminen *et al* (2016) noted in the literature review above, and is similar to the findings of Blitz et al (2018) who found that emerging preceptors of medical students at distributed training sites in South Africa felt that they did not get sufficient support from the training institution and were unsure of what was expected of them. They harboured a desire to have a closer relationship with the university including receiving feedback on how well they were doing. Van Schalkwyk et al (2019) consider it the responsibility of the university to support preceptors at distributed training sites, including providing them with opportunities for faculty development geared towards making them better teachers and ensuring that they receive communication that boosts confidence and makes them feel supported.

To the benefit of the students and the BMCP program as a whole, the absence of training with respect to assessment is compensated for by two factors: the enthusiasm and commitment of the preceptors, and the simplicity of the tools. The preceptors are enthusiastic. They find assessment satisfying especially when they see the students doing well. They view the outcome of assessment as a product of the teaching that they have done. Some of the satisfaction came from being validated by the students as in the case of preceptor A3 who got satisfaction because the students loved her teaching and assessment. For some it was a fulfilment of a life goal, making it an honour to assess students. None of the preceptors reported difficulty in using the tools. This explains why the preceptors have been able to conduct assessments over the ten years of the program without any training. Simple, easy to use tools also save time spent on assessing students, making assessment less burdensome and allowing the preceptors to do their primary clinical work.

5.6 Study Limitations

This study involved one program in one academic institution. This limits the extent to which the results may be applied to other institutions. However, the researcher has made an effort to place the findings into the broader picture of the literature on assessment by preceptors and assessment in the clinical settings. The researcher is also a lecturer on the BMCP program at WSU. This fact could potentially affect the responses from participants, and the interpretations that the researcher made from the data. To prevent such bias, the training site that the researcher is in charge of was not included in the study.

There were no nurses involved in assessment at the three hospitals. Data from this important cadre of preceptors are therefore missing and constitute a gap in knowledge of preceptor assessment in the WSU BMCP program.

There was an inadvertent omission of member checking of the transcribed interview scripts. This is seen as a limitation since member checking would have contributed to the quality and credibility of the data if it had been done before analysis.

5.7 Reflexivity

This assignment was a journey of self-discovery for the researcher. The researcher experienced emotions as he went through the interview processes and mulled over the participant responses, listened to the recorded interviews, read through the transcripts and wrote the research report. As a lecturer on the BMCP program, the researcher was well aware of the influence that his position could have on the design, implementation and interpretation of results for the study. One of the experiences that related to this positionality was seen when interviewing ClinAs who had previously been students in the WSU BMCP program. Whereas the flow of information from these participants seemed unimpeded, the researcher is aware of the effect that this positionality could have on the research process. The possibility of this kind of influence is seen in the opening statement of B1 when talking about the involvement of the university:

'*You know I respect you guys and all, but I feel that if for example we are going to assess students, we can have like just …'*

It was very difficult to get appointments with the participants. At one hospital the researcher had three failed appointments before getting the first interview. This made me realize that research is not an easy process and made me have greater respect for researchers. Many participants indicated that they did not have the time for the interviews. This made the researcher have a feeling of guilt since he seemed to be encroaching on patient time for the interviews conducted at the hospitals and this could have made the interview process hurried and limited the amount of information the participants gave.

The researcher was well aware of the importance of faculty development to enhance teaching, learning and assessment in workplace based learning even before the interviews. He however did not anticipate the strong views in this regard that came from the participants. As a lecturer at Walter Sisulu University, the lack of training and engagement of preceptors by the university made the researcher have feelings of guilt and embarrassment. This was compounded by the views of some of the participants who questioned the reliability of the assessments. The researcher has however ensured that the analysis and reporting of the interviews is not compromised by his own feelings.

On a positive note, the dedication and commitment of the preceptors to teaching, learning, and assessment, in spite of minimal training and support from the university, has caused the researcher to have a deep respect for all the preceptors on the WSU BMCP program and to dedicate this work to them.

5.8 Summary

The results of the study have been discussed in this chapter in relation to the literature following the themes that emerged from the data analysis. The next chapter will present the conclusions and recommendations of the researcher in regard to the research process and findings.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This study sought to find out what the experiences and perceptions of preceptors are in regard to assessing WSU clinical associate students at district hospitals. The preceptor narratives present a trove of information that has shed light on assessment as seen through their eyes. The preceptors are actively engaged in teaching and assessing the students at district hospitals. They are enthusiastic and highly motivated in performing these roles. None of the preceptors has had formal training on how to assess the ClinA students, and there is a lack of ongoing support from the university for most preceptors. The university expects to reap results where they have not sown the seed of training. The preceptors compensate for the lack of training by being innovative and calling on their own experiences to conduct assessment. Coupled with the simplicity of the tools of assessment, this has enabled them to conduct assessment of the students since the inception of the program. The preceptors experience dual conflict when dealing with poorly performing students: an inner conflict arising from feelings of guilt, and conflict with the students because they ask for higher marks. This points to the emotionally taxing nature of assessment and the need for preceptors to receive emotional support from the university. The reliability of preceptor assessment is impinged on by the absence of preceptor training, probable subjectivity of the preceptors and the environment in which the assessment is being conducted.

6.2 Recommendations

In light of the issues that have arisen under the various themes in this study a number of recommendations are hereby proposed. It is recommended that:

- Walter Sisulu University should develop a training program for ClinA preceptors that should include assessment in the clinical setting among other subjects. This recommendation is in line with the emphasis placed on training of preceptors by Tan *et al* (2011), Duteau (2012) and de Villiers et al (2017) among others.
- Walter Sisulu University should develop a program for ongoing support for preceptors. Child et al 2013 present ongoing university support for preceptors as a vital good practice. Engagement of preceptors by the university in this manner would go a long way in addressing a number of the issues that arise in the preceptor narratives including reliability of assessment, homogeneity across the sites, and undue pressure for higher grades from the students.
- Assessment in decentralized training platforms where preceptors are involved should use simple easy-to-use tools that are easy to understand and not burdensome for the preceptors.

- The reliability of the assessment conducted by preceptors in the BMCP program should be improved through measures to reduce the sources of error as discussed by Suskie 2009.
- Involvement of nurses in assessment of the skills that they facilitate the students to acquire should be encouraged. This will help to build the collaborative spirit among the students and help them to value each member of the health care team.
- The use of decentralized training sites for clinical associate students should be encouraged in the South African setting since they are suitable not only for teaching but also for assessment of students. Setting up of such sites should take into consideration issues of training and continued support for preceptors.

REFERENCES

American Educational Research Association, American Psychological Association, National Council on Measurement in Education. (1999) Standards for Educational and Psychological Testing. Washington, DC: American Educational Research Association p. 9

Bac, M., Hamm J.M.A., van Bodegraven, P.C., Pater, B., Louw, J.M. (2017) A new health care profession in rural district hospitals: a case study of the introduction of Clinical Associates in Shongwe hospital, *South African Family Practice,* 59:1, 14-17, DOI: 10.1080/20786190.2016.1248144

Bates, A.W. (2015) *Teaching in a Digital Age: Guidelines for Designing Teaching and Learning* Vancouver BC: Tony Bates Associates Ltd. ISBN: 978-0-9952692-0-0.

Black, P., William, D. (1998). Inside the black box: raising standards through classroom assessment. *Phi Delta Kappan 80* (3), 139-148

Black, S. (2011). *Being a mentor who fails a pre-registration nursing student in their final placement: Understanding failure* (PhD Thesis). London South Bank University. Retrieved from https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.570876

Blitz, J., De Villiers, M,, Van Schalkwyk. S. (2018) Implications for faculty development for emerging clinical teachers at distributed sites: a qualitative interpretivist study. *Rural and Remote Health,* 18: 4482. https://doi.org/10.22605/RRH4482

Botma, Y. (2016). Suggested competences for a preceptor training programme. *Trends in Nursing* 3(1). http://dx.doi.org/10.14804/3-1-16

Braun, V., & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. http://dx.doi.org/10.1191/1478088706qp063oa

Burns, C. (2003). Preceptor Survey Report, May 2003. Cherry Hill, PA: Association of Faculties of PNPs.

Calman, L., Watson, R., Norman, I., Redfern, S., Murrells, T. (2002). Assessing practice of student nurses: methods, preparation of assessors and student views. *Journal of Advanced Nursing*. 38(5), 516–523. https://doi.org/10.1046/j.1365-2648.2002.02213.x

Child M. J., Kiarie J. N., Allen S. M., Nduati R., Wasserheit J. N., Kibore M. W., … Kinuthia, R. (2014). Expanding clinical medical training opportunities at the University of Nairobi: adapting a regional medical education model from the WWAMI program at the University of Washington. *Academic Medicine*. *89(8).* S35–S39. https://doi.org/10.1097/ACM.0000000000000350

Couper, I. D., & Hugo, J. F. M. (2014). Addressing the shortage of health professionals in South Africa through the development of a new cadre of health worker: The creation of clinical associates. *Rural and Remote Health*, *14(3):2874, 1-8* Retrieved from www.rrh.org.au/journal/article/2874

Cuncic, C., Regehr, G., Frost, H., & Bates, J. (2018). It's all about relationships: A qualitative study of family physicians' teaching experiences in rural longitudinal clerkships. *Perspectives in Medical Education* 7: 100. https://doi-org.ez.sun.ac.za/10.1007/s40037-018-0416-y

David, C. M., Taylor., Hamdy, H (2013) Adult learning theories: Implications for learning and teaching in medical education: AMEE Guide No. 83, Medical Teacher, 35:11, e1561-e1572, DOI: 10.3109/0142159X.2013.828153

De Villiers, M., Van Schalkwyk, S., Blitz, J., Couper, I., Moodley, K., Talib, Z., & Young, T. (2017). Decentralised training for medical students: A scoping review. *BMC Medical Education*, *17*(1), 1–13. https://doi.org/10.1186/s12909-017-1050-9

Doherty, J., Conco, D., Couper, I., & Fonn, S. (2013). Developing a new mid-level health worker: lessons from South Africa's experience with clinical associates. *Global Health Action*, *6*, 19282. https://doi.org/10.3402/gha.v6i0.19282

Doherty, J., Couper, I., & Fonn, S. (2012). Issues in medicine: will clinical associates be effective for South Africa? *South African Medical Journal*, *102*(11), 833–835. https://doi.org/10.7196/SAMJ.5960

Downing, S. (2003) 'Validity: on the meaning full interpretation of assessment data', *Medical Education*, 37, pp. 830–837. doi: 10.1046/j.1365-2923.2003.01594.x.

Duffy, K. (2003). *Failing students: a qualitative study of factors that influence the decisions regarding assessment of students ' competence in practice.* Retrieved from: http://www.nmc-uk.org/Documents/Archived%20Publications/1Research%20papers/Kathleen_Duffy_Failing_Students2003.pdf

Duteau, J. (2012). Making a Difference: The Value of Preceptorship Programs in Nursing Education. *The Journal of Continuing Education in Nursing*, *43(1)*, 37–43. https://doi.org/10.3928/00220124-20110615-01

Enrico,N.B., Chapman,Y. (2011) The Lived Experience of Mentoring in Malaysia. *Nurse Media Journal of Nursing; 1 (1)* 87-104. https://doi.org/*10.14710/nmjn.v1i1.749.*

Epstein R.M., & Hundert EM. (2002) Defining and assessing professional competence. *JAMA* 2002;287 (2):226–35. doi:10.1001/jama.287.2.226

Ferris H.A. (2015) Assessment in Medical Education; What Are We Trying to Achieve? *International Journal of Higher Education.* DOI: 10.5430/ijhe.v4n2p139

Frambach, J. M., van der Vleuten, C. P. M., & Durning, S. J. (2013). AM Last Page: Quality criteria in qualitative and quantitative research. *Academic Medicine*, *88*(4), 552. https://doi.org/10.1097/ACM.0b013e31828abf7f

Govaerts, M., & van der Vleuten, P.M.C (2013). Validity in work-based assessment: expanding our horizons. *Medical Education* 47. 1164–1174. doi:10.1111/medu.12289

Groenewald, T. (2004). A Phenomenological Research Design Illustrated. *International Journal of Qualitative Methods*, *3*(1), 1–26. https://doi.org/10.1177/160940690400300104

Hamm J., van Bodegraven P., Bac M., Louw JM. (2016) Cost effectiveness of clinical associates: A case study for the Mpumalanga province in South Africa. *Afr J Prm Health Care Fam Med*. 8 (1), a1218. http://dx.doi.org/10.4102/phcfm.v8i1.1218

Helminen, K., Coco, K., Johnson, M., Turunen, H., & Tossavainen, K. (2016). Summative assessment of clinical practice of student nurses: A review of the literature. *International Journal of Nursing Studies, 53, 308-319.* https://doi.org/http://dx.doi.org/10.1016/j.ijnurstu.2015.09.014

Hernández, R. (2012). Does continuous assessment in higher education support student learning?. *Higher Education.* 64. 10.1007/s10734-012-9506-7.

Hunt, L. A., McGee, P., Gutteridge, R., & Hughes, M. (2016). Failing securely: The processes and support which underpin English nurse mentors' assessment decisions regarding under-performing students. *Nurse Education Today*, *39*, 79–86. https://doi.org/10.1016/j.nedt.2016.01.011

Kaufman, D., Mann, K.V. (2014). Teaching and Learning in Medical Education: How Theory Can Inform Practice. In: T Swanwick, ed. Understanding Medical Education': Evidence, Theory and Practice. Chichester, UK: Wiley-Blackwell and ASME 7 - 30

Kilminster, S. M., & Jolly, B. C. (2000). Effective supervision in clinical practice settings: A literature review. *Medical Education*, *34*(10), 827–840. https://doi.org/10.1046/j.1365-2923.2000.00758.x

Kolb, D. A. (1984). Experiential Learning: Experience as the Source of Learning and Development. Englewood Cliffs, NJ: Prentice Hall. http://academic.regis.edu/ed205/Kolb.pdf

Kolb, A. Y., & Kolb, D. A. (2009). Experiential learning theory: A dynamic, holistic approach to management learning, education and development. *The SAGE handbook of management learning, education and development*, 42-68

Lambert, V., & Glacken, M. (2005). Clinical education facilitators: A literature review. *Journal of Clinical Nursing*, *14*(6), 664–673. https://doi.org/10.1111/j.1365-2702.2005.01136.x

Lester, S. (1999). *An introduction to phenomenological research*. https://doi.org/10.1111/j.1467-9450.1984.tb01000.x

Maguire, M. and Delahunt, B. (2017). Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars. *The All Ireland Journal of Teaching & Learning in Higher Education*, 1(3), p.3351-33514. available at http://ojs.aishe.org/aishe/index.php/aishe-j/article/view/335/553

Mamchur, C., & Myrick, F. (2003). Preceptorship and interpersonal conflict: A multidisciplinary study. *Journal of Advanced Nursing*, 43(2), 188–196. https://doi.org/10.1046/j.1365-2648.2003.02693.x

MCcarthy, B., & Murphy, S. (2010). Preceptors' experiences of clinically educating and assessing undergraduate nursing students: An Irish context. *Journal of Nursing Management*, 18(2), 234–244. https://doi.org/10.1111/j.1365-2834.2010.01050.x

Merriam, S. B. (2009). *Qualitative Research: A Guide to Design and Implementation*. *The JosseyBass higher and adult education series* (Vol. 2). https://doi.org/10.1097/NCI.0b013e3181edd9b1

Messick, S. (1995), Standards of Validity and the Validity of Standards in Performance Asessment. *Educational Measurement: Issues and Practice*, 14: 5–8. doi:10.1111/j.1745-3992.1995.tb00881.x

Meyer, I. (2013). *The dual role of a clinical educator as mentor and assessor: influence on the teaching-learning relationship*. Stellenbosch University. Retrieved from http://scholar.sun.ac.za/handle/10019.1/85784

Miller, G.E. (1990). The assessment of clinical skills/competence/performance. Academic Medicine.

1990; 65(9):S63–S67. https://doi.org/10.1097/00001888-199009000-00045

Morris, C., & Blaney, D. (2014) Work-based learning. In: T Swanwick, ed. Understanding Medical Education': Evidence, Theory and Practice. Chichester, UK: Wiley-Blackwell and ASME 97 - 110.

Morris, T. H. (2019). Experiential learning–a systematic review and revision of Kolb's model. *Interactive Learning Environments*, 1-14. doi: 10.1080/10494820.2019.1570279

Myrick, F., & Yonge, M. (2005). *Nursing preceptorship: connecting practice and education.* Philadelphia, PA: Lippincott Williams & Wilkins.

Norcini, J., & Burch V. (2007). Workplace- based assessment as an educational tool: AMEE Guide No. 31. *Medical Teacher* 2007; 29 (9-10): 855 – 871. doi: 10.1080/01421590701775453

Norton, L. (2013). Assessing student learning. In Fry, ketteridge and Marshall. *A handbook for Teaching and Learning in Higher Education. Enhancing Academic Practice* Third edition. Routledge. Newyork. Pg 132 – 149

Omer, T. A., Suliman, W. A., & Moola, S. (2016). Roles and responsibilities of nurse preceptors: Perception of preceptors and preceptees. *Nurse Education in Practice*, *16*(1), 54–59. https://doi.org/10.1016/j.nepr.2015.07.005

Palermo, C., Beck, E. J., Chung, A., Ash, S., Capra, S., Truby, H., & Jolly, B. (2014). Work-based assessment: Qualitative perspectives of novice nutrition and dietetics educators. *Journal of Human Nutrition and Dietetics*, *27*(5), 513–521. https://doi.org/10.1111/jhn.12174

Pick, W., Khanyisa, N., Corwall, J., & Masuku, M. (2001). *Human Resources for Health: A National Strategy*. Pretoria.

Ramani, S. S., & Leinster, S. S. (2008). AMEE Guide no.34: Teaching in the clinical environment. *Medical Teacher*, *30*(34), 347–364. https://doi.org/10.1080/01421590802061613

Rutkowski, K. (2007). Failure to fail: assessing nursing students' competence during practice placements. *Nursing Standard*, *22*(13), 35–40. https://doi.org/10.7748/ns2007.12.22.13.35.c6299

Schuwirth, L.W.T & van der Vleuten, C.P.M. (2011) General overview of the theories used in assessment: AMEE Guide No. 57, *Medical Teacher*, 33:10, 783-797, DOI: 10.3109/0142159X.2011.611022

South African Association of Health Educationalists. (2017). Consensus Statement: Decentralized Training In The Health Professions. http://www.saahe.org.za/wp-content/uploads/2017/07/SAAHE-2017-Consensus-statement-DCT-adopted.pdf accessed 25th April 2019

South Africa. Health Professions Act 1974 (Act No. 56 of 1974). Regulations defining the scope of practice of clinical associates. Government Gazette No. 40414, 2016. Available at https://www.hpcsa.co.za/Uploads/editor/UserFiles/downloads/medical_dental/regulations/gg40414_nn1390.pdf (accessed 9th September 2019).

Suskie, L. (2009). *Assessing student learning: A common sense guide* (2nd ed.). San Francisco: Jossey-Bass.

Tan, K., Feuz, C., Bolderston, A., & Palmer, C. (2011). A literature review of preceptorship: A model for the medical radiation sciences? *Journal of Medical Imaging and Radiation Sciences*. 42, 15-20. https://doi.org/10.1016/j.jmir.2010.08.004

Mohsen Tavakol & Reg Dennick (2017) The foundations of measurement and assessment in medical education, *Medical Teacher*, 39:10, 1010-1015, DOI: 10.1080/0142159X.2017.1359521

Thomas, A., Menon, A., Boruff, J., Rodriguez, A.M and Sara Ahmed,S (2014) Applications of social

constructivist learning theories in knowledge translation for healthcare professionals: a scoping review. *Implementation Science* 9:54. doi:10.1186/1748-5908-9-54

Torre D.M., Daley B.J., Sebastian J.L., Elnicki D.M. (2006) Overview of Current Learning Theories for Medical Educators. *American Journal of Medicine*, 119 (10) , pp. 903-907

Trede, F., McEwen, C., Kenny, A., & O'Meara, P. (2014). Supervisors' experiences of workplace supervision of nursing and paramedic students in rural settings: A scoping review. *Nurse Education Today*, *34*(5), 783–788. https://doi.org/10.1016/j.nedt.2013.10.003

Van Schalkwyk, S., Couper, I., Blitz, J., Kent, A., de Villiers, M. (2019) Twelve tips for distributed health professions training, *Medical Teacher*, DOI: 10.1080/0142159X.2018.1542121

Vergis, A., Hardy, K. (2009). Principles of Assessment: A Primer for Medical Educators in the Clinical Years. *The Internet Journal of Medical Education*, 1(1), p.Volume 1, Number 1. Available at: http://print.ispub.com/api/0/ispub-article/13042.

Wass, V., Van der Vleuten, C., Shatzer, J. & Jones, R., (2001). Assessment of clinical competence. *The Lancet*, 357(9260): 945-949

Wood DF. (2010) Formative assessment. In: Swanwick T, Buckley G, editors. *Understanding medical education: evidence, theory, and practice. London:* Wiley-Blackwell; pp 259-70.

World Health Organization (2013). *Transforming and scaling up health professionals' education and training: World Health Organization Guidelines 2013.* Geneva, Switzerland: World Health Organization. Retrieved from https://whoeducationguidelines.org/.../WHO_EduGuidelines_20131202_high_print.pdf

Wormald, B. W., Schoeman, S., Somasunderam, A., & Penn, M. (2009). Assessment drives learning: an unavoidable truth? *Anatomical Sciences Education*, *2*(5), 199-204. https://doi.org/10.1002/ase.102

APPENDIX 1: INTERVIEW GUIDE

I would like us to discuss your experiences and views as an assessor of clinical associate students in this hospital. I will ask you a few questions and please feel free to answer them according to your view. There are no wrong answers. Whatever you say is the correct answer to the questions. This discussion is expected to take approximately 30 minutes.

1. What is your role in this hospital
2. How long have you been involved in training clinical associate students?
3. Please explain how you are involved in assessing ClinA students
4. Tell me about your experiences and feelings concerning assessing ClinA students. (possible follow-up questions listed below)
    - Tell me about your feelings regarding assessing ClinA students.
    - What makes assessment easy or difficult?
    - How satisfying to you is assessment?
    - How were you prepared to conduct ClinA student assessment?
    - Are there any challenges with assessing poorly performing students? What challenges?
    - How do you feel about support from the university staff in regard to assessment?
    - Please tell me about any conflict that could have arisen due to assessing students, if any.
    - Can you explain the type of tools you use for assessment?
    - How user friendly have you found these tools to be?
    - Please tell me about a particularly good event that happened during assessment
    - Please tell me about a discouraging/disheartening event that happened during assessment
5. Is there anything else you would like to tell me about assessing ClinA students?
6. Are there any questions you may want to ask?

Thank you for the information you have given in this interview.

APPENDIX 2: PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

Research Project Title: The perceptions and experiences of preceptors regarding assessment of clinical associate students.

Investigator: Aloysious Kakia.

Address: Walter Sisulu University, Faculty of Health Sciences, Department of Family Medicine and Rural Health.

Contact: 0786839837

Introduction

You are being asked to voluntarily take part in the research project described below. Please take your time making a decision and feel free to discuss it. Before agreeing to take part in this research study, it is important that you read the consent form that describes the study. Please ask the study researcher to explain any words or information that you do not clearly understand.

This study has been approved by the Health Research Ethics Committee at Stellenbosch University, and the Eastern Cape department of Health. It will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

Research Question

The research question for this study is "What are the perceptions and experiences of preceptors about assessing clinical associate students at district hospital training sites?"

Aim

The aim of this study is to explore preceptors' perceptions and experiences of assessing WSU clinical associate students at district hospital training sites. The knowledge gained from the study will make it possible for the program leadership to optimise the functioning of this vital teaching and learning resource. It will provide feedback information that will be ploughed back for quality improvement of assessment in the program.

What will your responsibilities be?

If you agree to take part in this study, the researcher will ask you questions concerning your views and experiences of assessing clinical associate students in the hospital. The interview with the researcher will last approximately 30 minutes and will be audio recorded.

Why have you been invited to participate?

The reason you are asked to participate in this study is because you are actively involved in assessing clinical associate students and are therefore considered to be rich in information relevant to the research question.

What are the risks and discomforts of the study?

There are no known risks associated with participating in this study. If however you feel uncomfortable about answering some of the questions, you may skip them. You may also choose to stop your participation in the study completely at any time. Participation in this study will not adversely affect you in any way.

What are the benefits of this research?

This study may help us to understand the areas that we need to strengthen and improve to optimize assessment of students in the clinical setting.

If you do not agree to take part, what alternatives do you have?

You have the option not to take part in this study. There will be no consequences if you choose not to take part in this study.

Who is paying for this study?

This research activity is funded from the researcher's private funds.

Will you be paid to take part in this study and are there any costs involved?

You will not be paid for taking part in this research study.

What if you want to withdraw?

Taking part in this study is voluntary. You have the right to choose not to take part in this study. If you do not take part in the study, there will be no penalty. If you choose to take part, you have the right to stop at any time.

Who do you call if you have questions or problems?

You may ask any questions you have now. If you have questions later, you may contact Aloysious Kakia on 0786839837. If you have questions or concerns about your participation in the research, please contact the University of Stellenbosch Health Research Ethics Committee on 021 938 9207

What about confidentiality?

Your part in this study is confidential. None of the final data analysis will identify you by name. All records containing your name will be erased from the documentation prior to the researcher sharing the data with the statistician, study supervisor, and / or any other parties within the University. The collected data will be stored on computer file that will be protected by a password known only to the researcher. All records will be destroyed after the completion of the research project. Anonymity of all participants will be maintained.

Authorization Statement

I have read each page of this paper about the study. I know that being in this study is voluntary and I choose to be in this study. I know I can stop being in this study without being penalized. I will get a copy of this consent form now and can get information on results of the study later if I wish.

Participant's Name: _____

Participant's Signature: _____ Date: _____

Informed consent for the taping of the interview

The purpose of the digital-recording for this interview and the use, storage and final destruction of the tapes has been explained to me and I understand the explanation. I have been offered to answer any of my questions concerning the procedures involved in the recording of the interview and I have been given a copy of this consent form.

Participant's Name (printed) _____

Participant's Signature _____ Date _____

Declaration by investigator

I Aloysious Kakia declare that:

- I explained the information in this document to …….
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did not use an interpreter.

Signed: _____ Date: _____

Appendix 3: Ethics Approval

UNIVERSITEIT
STELLENBOSCH
UNIVERSITY

Health Research Ethics Committee (HREC)

Approval Notice

New Application

21/11/2017

Project Reference #:1412

HREC Reference # S17/09/180

Title: THE PERCEPTIONS OF PRECEPTORS REGARDING ASSESSMENT OF CLINICAL ASSOCIATE STUDENTS

Dear Dr Aloysious Kakia,

The **New Application** received on 15/09/2017 was reviewed by members of **Health Research Ethics Committee** via **expedited** review procedures on 21/11/2017 and was approved.

Please note the following information about your approved research protocol:

Protocol Approval Period: **21-Nov-2017 – 20-Nov-2018**

Please remember to use your project reference number Project (1412) on any documents or correspondence with the HREC concerning your research protocol.

Please note that the HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review

Please note you can submit your progress report through the online ethics application process, available at: https://applyethics.sun.ac.za/Project/Index/1540 and the application should be submitted to the Committee before the year has expired. Please see Forms and Instructions on our HREC website for guidance on how to submit a progress report.

The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility, permission must still be obtained from the relevant authorities (Western Cape Departement of Health and/or City Health) to conduct the research as stated in the protocol. Please consult the Western Cape Government website for access to the online Health Research Approval Process, see: https://www.westerncape.gov.za/general-publication/health-research-approval-process. Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.

For standard HREC forms and instructions, please visit: Forms and Instructions on our HREC website Links Application Form Direct Link

If you have any questions or need further assistance, please contact the HREC office at 021 938 9677.

Included Documents

Protocol Synopsis

Protocol

Information Sheet and Consent Form

Interview Guide

Application form

Investigator's declaration_A Kakia

Investigator's declaration_I Couper

CV_A Kakia

CV_I Couper

Yours sincerely,

Francis Masiye,

HREC Coordinator,

Health Research Ethics Committee 2 (HREC 2).

Federal Wide Assurance Number: 00001372

Institutional Review Board (IRB) Number: IRB0005239

The Health Research Ethics Committee complies with the SA National Health Act No. 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles, Structures and Processes 2015 (Departement of Health).