

**Clinical judgement in nursing:
A teaching-learning strategy for South African
undergraduate nursing students**

**AC VAN GRAAN
10197869**

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Promoter: **Prof MP Koen**

Co-promoter: **Dr MJS Williams**

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**“I can do all things through Christ who
strengthens me.”**

Philippians 4:13




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**“God did not call the qualified to serve Him:
instead He qualified the called “**

Judy Baer



PREFACE AND DECLARATION

An article format was chosen for this study. The researcher, Mrs AC van Graan, conducted the research and compiled the manuscripts. Prof MP Koen (promoter) and Dr MJS Williams (co- promoter) acted as auditors. Three manuscripts have been compiled and submitted for publication in a South African Journal as follows:

MANUSCRIPT ONE: “Clinical judgement within the South African nursing environment:
A concept analysis”
(Health SA Gesondheid)

MANUSCRIPT TWO “Professional nurses’ understanding of clinical judgement: A
contextual inquiry”
(Health SA Gesondheid)

MANUSCRIPT THREE “Clinical judgement in nursing: A teaching-learning strategy
within the South-African context”
(Health SA Gesondheid)

Consent to submit the above-mentioned articles (manuscripts) for examination were obtained from Prof MP Koen and Dr MJS Williams (co-authors).

I solemnly declare that this thesis, entitled **CLINICAL JUDGEMENT IN NURSING: A TEACHING-LEARNING STRATEGY FOR SOUTH AFRICAN UNDERGRADUATE NURSING STUDENTS**, presents the work carried out by myself and does not contain any material written by another person except where due reference is made. I declare that all the sources used or quoted in this study are acknowledged in the bibliography, that the study has been approved by the Ethics Committee of North-West University (NWU-00107-13-S1: Annexure A) and that I have complied with the ethical standards set by the institution.

A.C van Graan (Student number: 10197869)


Date 13th November 2014

PERMISSION LETTER

Permission is hereby given that the following three manuscripts

1. "Clinical judgement within the South African nursing environment: A concept analysis"
2. "Professional nurses' understanding of clinical judgement: A contextual inquiry"
3. "Clinical judgement in nursing: A teaching-learning strategy within the South-African context"

Intended for publication in "Health SA Gesondheid" (manuscript 1, 2 & 3) may be submitted by Anna C van Graan for the purpose of obtaining a PhD-degree in Health Science Education.



Promoter: Prof MP Koen

Date: 13 November 2014



Co-promoter: Dr MJS Williams

Date: 13 November 2014

NOTES:

1. All tables and figures will be included in the text for the purpose of the thesis as this should improve the interpretation of the text. For publication purposes all tables and figures will be added as annexures after the reference list according to the prescribed guidelines.
2. For the purpose of the thesis the bibliography of Section 1: The overview is presented according to the required reference style of the NWU, and Section 2: Manuscripts 1-3 according to the prescribed guidelines of the selected journal, "Health SA Gesondheid."

ABSTRACT

Recent reforms in the South African health care and educational system were founded in the ideal that the country would produce independent, critical thinkers. Nurses need to cope with diversity in a more creative way, defining their role in a complex, uncertain, rapidly changing health care environment. Learning facilitators are held accountable for finding adequate learning experiences to prepare nursing students for such practice demands so that newly qualified nurses do meet expectations for entry level clinical judgement ability. Quality clinical judgement is therefore imperative as an identified characteristic of newly qualified professional nurses.

There is a scarceness of information on the concept of clinical judgement especially within the South African nursing environment. Relevant information in this regard can assist in clarifying the meaning, which will facilitate a common understanding of the concept within the clinical nursing environment. This in turn can lead to the formulation of a teaching-learning strategy to facilitate clinical judgement in undergraduate nursing students, which would be of benefit in the nursing care environment.

The *objective* of this study was addressed in three phases. The first phase of this research analysed the concept of *clinical judgement* through various data sources and a review of literature to clarify the meaning and facilitate a common understanding through identification of the characteristics and to develop a connotative (theoretical) definition of the concept. The second phase of the research investigated professional nurses' understanding of the meaning of clinical judgement, as well as the factors that influence the development of clinical judgement within the nursing environment. During the third phase a conceptual framework for an enabling teaching-learning environment was constructed from a modern day constructivist approach to facilitate clinical judgement. The section included a description and diagrammatic presentation of the framework. The conceptual framework formed the scientific basis from which a teaching-learning strategy for the creation of an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students within the South African nursing environment was synthesised.

A qualitative design was used for the study. During the first phase (manuscript 1) an explorative, descriptive qualitative *design* was used to discover the *complexity* and *meaning* of the phenomenon. Multiple data sources and search engines were consulted for the time frame 1982-2013. An extensive concept analysis *resulted in a* theoretical definition of the concept ‘clinical judgement’, a complex cognitive skill to evaluate patient treatment alternatives within the clinical nursing environment. The second phase (manuscript 2) is qualitative in nature and explored professional nurses’ understanding of clinical judgement, as well as the factors influencing the development of clinical judgement in undergraduate nursing students.

The findings emphasised clinical judgement as skill within the nursing environment. This assisted in the development of teaching-learning strategy for the creation of an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students within the South African Nursing environment as the third phase (manuscript 3). Such an environment should impact positively to promotion of autonomous and accountable nursing care.

Key words: *nursing environment, clinical judgement, critical thinking, nursing student, quality nursing care, teaching-learning strategy*

OPSOMMING

Transformasie in die Suid-Afrikaanse gesondheidsorg- en onderwysstelsel word gekenmerk deur die ideaal dat die land onafhanklike, kritiese denkers moet produseer. Verpleegkundiges behoort diversiteit op kreatiewe wyses te kan hanteer en hulle moet hulle rol in 'n komplekse, omgewing van onsekerheid en snelle verandering definieer. Leerfasiliteerders word verantwoordelik gehou daarvoor om nuut gekwalifiseerde verpleegkundiges te lewer wat oor die verwagte intreevlak kliniese oordeel beskik deur die voorsiening van voldoende kliniese leerervarings ter voorbereiding vir die eise van die verpleegomgewing. Kliniese oordeel is daarom onontbeerlik as 'n geïdentifiseerde eienskap van die nuut gekwalifiseerde professionele verpleegkundige.

Daar is min inligting rakende kliniese oordeel, veral binne die Suid-Afrikaanse kliniese omgewing. Relevante inligting in die verband kan bydra tot nuwe uitklaring van die betekenis van kliniese oordeel om sodoende 'n algemene verduideliking van die konsep te bevorder. Bevindinge kan gebruik word vir die daarstelling van 'n onderrig-leer strategie om kliniese oordeel by voorgraadse student te fasiliteer, iets wat tot voordeel van verpleging sal wees.

Die doelwit van hierdie studie word in drie fases aangespreek. Die eerste fase van die navorsing ondersoek het die konsep kliniese oordeel beskryf deur die gebruik van verskeie databronne ten doel van 'n uitgebreide oorsig van die literatuur. Die konsep is verhelder deur die vestiging van 'n algemene betekenis wat berus op die identifisering van eienskappe en die daarstelling van 'n teoretiese definisie. Die tweede fase van die navorsing, het professionele verpleegkundiges se begrip van die betekenis van kliniese oordeel ondersoek, asook die faktore wat die ontwikkeling van kliniese oordeel gedurende lewering van verpleegsorg beïnvloed. Gedurende die derde fase is 'n konseptuele raamwerk ontwikkel wat 'n leer-omgewing wat kliniese oordeel vanuit 'n konstruktivistiese benadering fasiliteer gevestig. Die konseptuele raamwerk dien as basis om die onderrig-leer strategie te ontwikkel en sodoende die daarstel van 'n leer-omgewing om kliniese oordeel binne die Suid-Afrikaanse verpleegomgewing by voorgraadse verpleegkunde-studente te fasiliteer.

Die studie volg 'n kwalitatiewe ontwerp. Gedurende die eerste fase is 'n verkennende en beskrywende kwalitatiewe ontwerp gebruik om die kompleksiteit en betekenis van die fenomeen te ontdek (manuskrip 1). Verskeie databronne en soekmetodes is gebruik om die tydsraamwerk van 1982-2013 te ondersoek. 'n Omvattende konsep-ontleding is aangebied om die teoretiese definisie van 'kliniese oordeel' as 'n komplekse kognitiewe vaardigheid te formuleer. Die bevindinge toon die noodsaaklikheid en belangrikheid van kliniese oordeel as kognitiewe vaardigheid wat 'n belangrike bydrae lewer tydens die alternatiewe behandeling van pasiënte. Die tweede fase (manuskrip 2) bied die resultate van die kwalitatiewe ondersoek wat professionele verpleegkundiges se kennis van kliniese oordeel vasstel, asook die faktore wat volgens hulle ondervinding die ontwikkeling van kliniese oordeel beïnvloed.

Die studie beklemtoon kliniese oordeel as vaardigheid binne die verpleegomgewing en dra sodoende by tot die ontwikkeling van 'n onderrig-leer-strategie vir die daastel van 'n onderrig-leer omgewing om voorgraadse verpleegkunde-studente binne die Suid-Afrikaanse verpleegomgewing toe te rus met die vaardigheid van kliniese oordeel as die derde fase (manuskrip 3) ten einde by te dra tot die verbetering van outonome en verantwoordbare verpleegsorg.

Sleutelwoorde: *onderrig-leer-strategie, kliniese oordeel, kritiese denke, kwaliteit verpleegsorg, verpleegomgewing, verpleegkundestudent.*

LIST OF ACRONYMS

A

ANC African National Congress

C

CBE Community Based Education/Competence Based Education

CBL Competency-based Learning

CHE Council on Higher Education

D

DoE Department of Education (national)

DOH Department of Health

E

EL Experiential learning

EBE Evidence-based Education

H

HE Higher education

HEI Higher education institution

HEQF Higher Education Qualifications Framework

N

NEI Nursing Education Institution

NWU North-West University

Q

OBE Outcomes-Based Education

P

PHC Primary Health Care

PBL Problem-Based Learning/Education

R

RCN Royal College of Nursing

S

SANC South African Nursing Council

SAQA South African Qualification Authority

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SECTION ONE
OVERVIEW OF THE RESEARCH STUDY



OVERVIEW OF THE RESEARCH STUDY

The background and rationale that inspired the study are discussed first, followed by the problem statement, paradigmatic perspective and the research methodology. The three (3) phases of the study are presented in article format, according to the criteria of the journal of choice.

The study is concluded with an evaluation of the research, limitations, conclusions and recommendations and a personal reflection.

1.1 BACKGROUND AND RATIONALE FOR THE STUDY

In South Africa, as elsewhere, the idea that education and training should help students develop the dispositions or attitudes associated with critical thinking can be connected to government policies, employers' desires and the pace of globalisation (Pithers & Soden, 2000:237). Major transformation processes internationally and in South Africa as a result of political, technological and educational reform have characterised the past decade (Reviews of National Policies for Education: South Africa, 2008). In the past decade, the Department of Health has been faced with huge challenges with the restructuring and establishing of a framework for a more equitable national health system. According to the African National Congress (1994); Armstrong, Geyer, Mngomezulu, Potgieter & Subedar, 2008; Van Rensburg & Pelser, 2004; Walker & Gilson, 2004, there has been a shift from a fragmented, mainly curative, hospital-based service to an integrated, primary health care (PHC), community-based service. PHC approach shifts the focus of health care to a concern for the underprivileged, using the principles of "availability, affordability, sustainability, accessibility and acceptability." The Nursing Strategy for South Africa (2008) emphasises the impact of the global shortage of nurses, as well as the change of the South African health service delivery, which has not left nursing unscathed (ANC, 1994a:19-20; Department of Health, 2008a; Geyer, Naude & Sithole, 2002:11).

In South Africa the shortages are acutely felt with an estimated nurse shortage of 32 000 (Oulton, 2006; Rondganger 2013). The South African Nursing Council's (2013) nursing

manpower-population statistics indicate that over 50% of the health care workers in South Africa are nurses, which comes down to 129 015 registered nurses serving a population of 52 982 000. These statistics indicate a ratio of 411:1 registered nurses and accentuate that professional nurses are at the very core of health care provision. Nurses are also considered to be frontline staff in delivering safe and effective health care (Buchan, 2006; Buchan & Calman, 2004:7; South African Nursing Council, 2013). Buchan, 2006; Van Rensburg and Pelzer (2004:164) further note that most of the weight of health care rests squarely on the shoulders of nurses as they are the first point of contact for patients caring for the hallmark of the nursing profession.

Consequently, the human resource crisis in health care is most felt at a nursing practice level, as nurses were denoted to primary health care services without the necessary preparation and support. This move brought an increase in workload, responsibilities beyond the scope of practice of nurses, a shortage of equipment and supplies, and rapidly changing work environments (Armstrong, Geyer, Mngomezulu, Potgieter & Subedar, 2008; Van Rensburg & Pelser, 2004; Walker & Gilson, 2004).

Van Rensburg and Pelser (2004:164) confirm that the recent changes in the structure of the South African health care system have had several far-reaching effects on health care professionals. Their role and function has changed dramatically from one of mainly caring for the patient at the bedside to a much wider, more demanding role. Larger sections of the population are since the shift to an integrated, primary health care (PHC), community-based service, able to access the health care system due to the increasing burden of more complex health problems and chronic disease (Bright, *et al.*, 2004). South Africa is experiencing a triple burden of diseases, namely communicable diseases associated with poverty, non-communicable diseases associated with lifestyle, and trauma and violence; most of these fuelling the HIV/AIDS epidemic. The situation is further complicated by the high unemployment rate and the influx of people into metropolitan areas. This has created an explosion of people living in informal settlements in over-crowded dwellings, with the lack of basic infrastructure increasing the potential for disease (Armstrong, Geyer, Mngomezulu, Potgieter & Subedar, 2008). These health care services are publicly funded, free to unemployed citizens and available for a small fee to those able to pay, and thus accessible for

all (Geyer *et al.*, 2002; Van Rensburg & Pelser, 2004; Pelser, *et al.*, 2004). Rendering these services requires an increase in diagnostic and curative clinical skills in the people who work in these health care settings (Department of Health, 2008a; Nursing Act 33, 2005; Simpson & Courtney, 2002:89-91). The legislation and introduction of remunerated community services for newly qualified nurses since 2006 (Nursing Act 33, 2005) led to a rotation of nurses between clinical settings in an effort to provide comprehensive health care services. Nurses are thus left extremely vulnerable as they are not fully prepared clinically or educationally to treat patients that require comprehensive diagnostic and curative clinical skills due to the above-mentioned increase in demand (ANC, 1994a:19-20; Geyer *et al.*, 2002:11; Department of Health, 2008a).

Unlike their counterparts from the United States and other countries, South African nurses are expected to provide comprehensive health care services after completing only their basic nursing education (Uys, Gwele, McInerneyVan Rhyn & Tanga, 2004:354). The mentioned changes in the structure of the South African health care system and nursing practice complexities require nurses to have analytical and problem-solving skills so that they can make appropriate clinical decisions underpinned by holistic professional competence. Fish and Twinn (1997:187) accentuate that the achievement of such competence requires conceptual understanding that allows knowledge to be used across a variety of health care contexts. This enables the nurse to deal better with the realities of patient care. In preparation for the professional nurse role, undergraduate nursing students are expected to develop and integrate knowledge and practice to achieve conceptual understanding to make the necessary clinical decisions. If achieved, this will have a positive impact on the patient outcomes required for competent, professional, patient-centered care. Conversely, poor clinical reasoning skills and communication often fail to detect impending patient deterioration and could hold a threat for the safety of a patient (Baird, Funderbunk, Whitt & Wilbanks 2012:48; Farahani, Sahragard, Carroll & Mohammadi, 2011:32; Walker & Gilson, 2004), resulting in a “failure-to-rescue” (Aiken *et al.*, 2003). Aiken *et al.* (2003) indicate this as significant when viewed against the background of increasing numbers of adverse patient outcomes. The Quality in Australian Health Care Study (Wilson *et al.*, 1995) found that “cognitive failure” was a factor in 57% of adverse clinical events and this involved a number of features, including failure to synthesise and act on clinical information.

An analysis of the South African Nursing Council's (SANC, 2013) professional misconduct reports for the period of 2003-2013 (see Table 1.1), reveals that a total of 1146 nurses, including 790 professional nurses, 187 enrolled nurses, 74 nursing auxiliaries, 9 nursing students and 3 pupil nurses, were found guilty of misconduct due to poor basic nursing care. Professional misconduct ranges from failure to properly diagnose, mistakes made during the implementation of a prescribed course of therapy, and miscommunication. It can therefore be concluded that clinical decisions and judgement made by nurses in particular do not always comply with minimum expectations as reflected in the legal-ethical framework of nursing as a profession (SANC, 2013).

Table 1.1: South African Nursing Council's professional misconduct reports (SANC, 2003 -2013)

Type of offence	Professional nurses	Enrolled nurses	Nursing auxiliaries	Nursing students	Pupil nurses	Misconduct reports 2008-2013	Total misconduct reports 2003-2013
Maternity related	158	73	1	0	0	31	163
Medicine related	115	27	4	9	0	12	152
Poor nursing care	300	72	52	0	3	33	418
Sexual abuse of a patient	159	9	7	0	0	0	143
Physical assault of a patient	11	3	10	0	0	3	19
Section 36 (of the Nursing Act, 1978)	47	3	0	0	0	4	48
TOTAL	790	187	74	9	3	83	1146

Minimum expectations refers to the unique function of the nurse to assist the individual, sick or well, in the performance of those activities the patient would perform unaided if he had the necessary strength, will or knowledge (Henderson, 1966:15). In 2014, Henderson's 1966 patient-centered, needs-focused, collaborative and goal-directed nursing theory appears to be just as relevant as it was then, but the cognitive skills to determine and demonstrate how best

to ‘assist the individual’, were not made explicit (Henderson 1966:15). More recently, the Royal College of Nursing (RCN) (UK) started accentuating the ‘use of clinical judgment’, which distinguishes modern nursing from earlier versions (RCN, 2003:3) and indicates the continuous adaptation of nursing to socio-political and cultural changes to meet new challenges and role requirements to enhance the quality of patient care and accountability (Ebright *et al.*, 2003; Fish & Twinn, 1997:184; Fonteyn, 1991; RCN, 2003; Tanner, 1998:99). This subtle shift in focus from what *nurses do*, to *how they think about what they need to do*, increases the demand for higher-order and multiple thinking strategies. Strategies identified as logical reasoning, decision-making and judgement skills are thus needed for safe and quality clinical practice to avoid adverse events and patient harm at the forefront of nurses’ professional identity (Benner, 1997:53; The Nursing Act no 35 of 2005; Paul, 1993; RCN 2003:3; Sturgeon, 2011:44).

Looking at different views in the literature, such as Alfaro-LeFevre (2012:7-8); Benner, Hughes and Stuphen (2008); Hoffman (2007:50-52), Phaneuf (2008), Tanner (2006b: 206, 207); Thompson & Dowding, 2004:38), the terms “clinical reasoning”, “problem solving”, “decision making”, “critical thinking” and “clinical judgement” are often used interchangeably. These terms describe the process through which nurses collect cues, process the information, reflect on, and come to an understanding of a patient’s problem or situation. This process is followed by planning and implementation of nursing interventions, evaluation of the outcomes, reflection on and learning from the process, as well as annotations to clinical records and communications with physicians (Hoffman, 2007). Alfaro-LeFevre (2012), Tanner (2006b:206-209) and Facione (2006) conceptualise clinical reasoning as the process through which nurses make clinical judgements as conclusion by selecting from alternatives, weighing evidence, using intuition and pattern recognition.

Nurses of the 21st century can assist in shaping the future health care environment (Le Storti *et al.*, 1999:63; SAQA, 2011:4) by moving beyond traditional task-oriented, well-defined organisational decision-making boundaries and autonomous, dependent professional roles. They should move to a more inclusive focus on processes, outcomes and people by making interdependent decisions in an interactive and interdisciplinary manner (Facione, 2006:5; Moorhead & Huber, 1997:1). The process of preparing undergraduate nursing students in

clinical judgement to achieve the above-mentioned change, takes students on a journey of moving on an experience continuum from novice to expert. This is confirmed in educational literature (Benner, 2001) and explained by the authors McGlynn *et al.* (2003) and Straus, Tetroe, Graham (2009:7) as a process of knowledge translation. They indicate that at the beginning of the process, novice students are not self-directed due to limited experience. Students depart from reliance on abstract knowledge and context-free formal rules, therefore their decisions are dependent and they require guidance about what to do. Benner (2001) and McGlynn *et al.* (2003) (as cited in Straus *et al.*, 2009:8) refer to knowledge transfer as explicit knowledge and accentuate the supportive role of facilitators during this phase. Support should take the form of all role players motivating, guiding and building a student's confidence. McGlynn *et al.* (2003) and Graham, Logan, Harrison, Straus, Tetroe, Caswell & Robinson (2006) (as cited in Straus *et al.*, 2009:9) emphasise that novice student's move through a process of knowledge translation or putting elementary knowledge into action. Benner (2001) indicates this on a continuum. Student nurses move to self-direction as they become more experienced and begin to link past nursing care experiences to the current nursing care practice. This experience accumulates over time, until students internalise it to become self-directed, independent and evidence-informed decision makers to improve their patient's health (American Association of Colleges of Nursing 1998; Facione & Facione, 1996:129-136; Scheffer & Rubenfeld, 2000:357; Straus *et al.*, 2009:7).

From the above outlay, it is clear that nurses need to apply higher order cognitive thinking strategies to gain a broader outlook, creative solutions and multiple pathways to reach a feasible solution. Recent reforms in the South African health and educational system are founded on the ideal that the country should produce independent, critical thinkers who are able to question, weigh evidence, make informed judgements and accept the incomplete nature of knowledge, as well as influence change and cope with diversity in a more creative way (Republic of South Africa (RSA), 1995:22; SANC, 2005).

SANC (2005) advocates the development of "teaching and learning strategies" to enhance undergraduate nursing student-centered education and training, and the acquisition of core competencies and cross-field outcomes as the main method of acquiring knowledge to accommodate this ideal. The WHO (2001) and SANC (2005) further suggest that a balance of

theory and practice opportunities should be provided, together with a student-centered approach and appropriate clinical supervision. SANC's aim is that the mentioned supervision should act as student support and should result in a positive outcome to facilitate the integration of theory and practice (Landmark *et al.*, 2003:834-841; Oermann & Gaberson, 1999:44). Accordingly, nursing education institutions (NEI) are increasingly challenged to revise their approach to develop creative programmes that can facilitate growth in nursing students and produce the type of professional nurse capable of matching the education requirements that would enable nurses to cope with the demands of the health sector as dictated by the National Health Policy (1994a) and SAQA directives, and to simultaneously meet the increasing demands for affordable health care (Byl, 2013; Distler, 2007:53; SAQA Act 58 of 1995). Consequently, nursing curricula throughout the country are undergoing extensive revision. The curricula orientation is towards competency-based education approaches such as Outcomes-Based Education (OBE), community-based education (CBE) and problem-based learning (PBL), with the emphasis on primary health care (Lombard & Grosser, 2008; SANC, Act 33 of 2005 SAQA Act 58 of 1995).

The most important characteristic of competency-based education as outcomes-based approach is that it measures learning rather than time. Students progress by demonstrating their competence, which means they prove that they have mastered the knowledge and skills (called competencies) required for a particular course, regardless of how long it takes (Mendenhall, 2012). Competency-Based Learning (CBL) is a learning process centered around the capacity and responsibility of each student and the development of his/her autonomy and self-reliance (Sanchez, Ruiz, Olalla, Mora, Peredes, Otero, San Ildefonso & Eizaguirre *et al.*, 2008:33-34). The main reason for this change is that the education and training programmes of the past were too content-based. From the researcher's experience as a nurse educator, nursing students in training are accustomed to the presence of the lecturer/educator in class who provides the theoretical component of the curriculum by use of traditional teaching strategies and direct control over the content. Bruce *et al.* (2011:194) also confirm the statement above mentioned. A knowledge explosion occurred over the past decade, which implies that nursing science educators can no longer simply "cover" the content of a subject/discipline (Klopper, 2009:3, 9-20). In the wake of a growing concern about nurse competence, nursing programmes have moved towards competency-based

curricula. Slabbert and Gouws (2006:152) support the above and state that courses do not adequately prepare the student for the professional demands that they face after completing their studies. CBL aims to develop the necessary generic or transversal competences and the specific competences for the profession with the aim of endowing students with scientific and technical knowledge, and enabling them to apply such knowledge in diverse complex contexts. Knowledge is integrated with attitudes and values in ways that suit students' personal and professional life and enhance lifelong learning (Sanchez *et al.*, 2008:34).

The application of mastered knowledge is monitored and evaluated in the clinical environment, but the process is somehow disjointed. Nurses have become very routine conscious, in the sense that duties are completed as allocated (Armstrong *et al.*, 2008; Ericson, White & Ward 2007:58-72). Learning to reason effectively does not happen serendipitously, nor does it occur just through observation of expert nurses in practice. The OBE approach emphasises what the undergraduate nursing student should be able to do on completion of a learning programme by implying competence. The need for a foundational, practical and reflective approach with a focus on the achievement of competence has never been questioned (Ericson *et al.*, 2007:65). However, the implementation of an innovative teaching programme with a multiplicity of teaching-learning strategies that is guided by facilitation of learning is essential for the achievement of outcomes and to bridge the gap between theory and practice (Distler, 2007:54; Thomas *et al.*, 2012:88). The teaching approach has to provide an appropriate learning environment, resources, student support and continuous assessment, conducive for integrated life-long learning as proposed by SANC (2005) as an identified need (CHE, 1994:17; SANC, 2005; Van der Horst & McDonald, 2003:133-157).

The South African Nursing Council (SANC, 2005) accentuates the importance of the information mentioned above, and states that the “purpose” of nursing education is “to develop the undergraduate nursing student on a personal and professional level to become an independent, knowledgeable, safe practitioner with analytical and critical thinking skills.” Therefore OBE as educational approach or strategy is a vehicle to reach the stated outcomes (knowledge, skills, attitudes and values) as it enhances critical reflective thinking and assists in developing clinical decision-making and judgement skills. Such a programme allows

nurses the integration of theory and practice and to facilitate students' learning towards the attainment of outcomes and competence. Bruce *et al.* (2011:195) support the fact that outcomes refer to the learning results and include the curriculum's critical cross field outcomes. These are the essential life skills that students should possess at the end of a specific course. There is thus a necessity to prepare a nursing student to deal with the realities and complexities of patient care. As confirmed by Fish and Twinn (1997:87), this will allow knowledge to be used across a variety of contexts, which entails complex decision-making including judgments founded on moral principles (Gravett, 2005; SANC, 2005; SAQA, 2011:4-6; WHO, 2001). The nursing student will thus be prepared for a professional life. Such a nurse would be able to influence change and have the ability to cope with diversity in a creative way and accept moral and legal accountability for his/her nursing practice (Fish & Twinn, 1997:87-89; Nursing Act No. 33 of 2005; SAQA, 2011:4-5).

This overview on the impact of the South African health care system's challenges and the importance of clinical judgement in nursing is followed by the problem statement and research questions that guide this research.

1.2 PROBLEM STATEMENT AND RESEARCH QUESTIONS

As indicated above, the concept clinical judgement within nursing has gained increasing attention internationally over the last decades. This is evidenced by the number of conceptual and empirical articles (Alfaro-LeFevre, 2012:70; Winch, 2006; Hoffman, 2007; Tanner, 2006b:205-209; Dowding & Thompson, 2003:49-57; Ankievicz *et al.*, 2001; Arangie, 1997; Facione *et al.*, 1994: 345-350; Benner & Tanner, 1987; Benner, 1984). Most of this research originated in the international arena, despite its obvious importance for health care delivery in South Africa. No authoritative definition of clinical judgment could be found. In the search for a definition of clinical judgement, the researcher was surprised by the lack of literature and attention given to clinical judgement in the South African context. The findings from the international studies are not necessarily transferable to the South African health context. It is clear from the above discussion that the complexities of the South African clinical nursing environment requires nurses to have critical thinking and problem solving skills to make appropriate clinical decisions underpinned by professional competence. If nurses are to be

credible participants in shaping the future of health care delivery and defining their role in a complex, uncertain, rapid changing health care environment, quality clinical judgement is imperative as an identified characteristic of the newly qualified professional nurse (SAQA, 2011:4-6). This implies the need for a plan to empower undergraduate nursing students with well-developed clinical judgement based on *constructivist learning principles* as interplay between learning facilitator, student and the clinical nursing environment as context, as well as the active role the student plays in the construction of own knowledge and conceptual change (Klopper, 2009: 14). The holder of such judgement can handle complexity and focuses on interaction and the integration of knowledge, skills and an attitude supported by professional values.

The problem presented in the statement above can be addressed by attending to the following questions:

1. What is the meaning of the concept clinical judgement within the South African nursing environment?
2. What are the empirical referents enclosed in the concept clinical judgement?
3. What are the characteristics and processes involved in coming to clinical judgement?
4. Which factors influence the development of clinical judgement within the nursing environment?
5. Which constructs are needed for a conceptual framework to develop a teaching-learning strategy to enhance clinical judgement in undergraduate nursing students within the South African nursing environment?
6. How can a teaching-learning strategy that facilitates clinical judgement in undergraduate nursing students within the South African nursing environment be developed?

1.3 RESEARCH AIM AND OBJECTIVES

Considering the above problem statement and the questions that result from it, the aim of this research is to create an enabling teaching-learning climate for the facilitation of clinical judgement in undergraduate nursing students within the South African nursing environment.

In order to address the aim of the study, the following (7) seven objectives are addressed in (3) three phases:

Phase 1

1. To explore and describe clinical judgement as a concept within the South African nursing environment.
2. To explore and describe the empirical referents of clinical judgement to construct a denotative (operational) definition.

Phase 2

3. To explore and describe the meaning, characteristics and process of clinical judgement; and
4. To describe factors that influences the development of clinical judgement within the nursing environment through triangulation by means of focus group interviews (World Café method) with professional nurses within the nursing environment in the North-West Province.

Phase 3

5. To describe a conceptual framework for an enabling learning environment to facilitate clinical judgement from a modern-day constructivist approach within the South African nursing environment.

6. To construct and visually represent a conceptual framework for an enabling learning environment to facilitate clinical judgement by following a modern-day constructivist approach within the South African nursing environment.
7. To synthesise a teaching-learning strategy for the creation of an enabling teaching-learning environment to facilitate clinical judgement from a modern-day constructivist approach in undergraduate nursing students within the South African nursing environment.

In order to truly comprehend the effect clinical judgement currently have in the South African nursing environment, the concept of clinical judgement should be analysed and defined through a comprehensive literature exploration. Following the literature study, the concept of clinical judgement was validated by triangulation of the results from focus group interviews (World Café method) with professional nurses in clinical practice. The conceptual framework was refined as outcome. From this framework, a teaching-learning strategy was developed to facilitate clinical judgement in undergraduate nursing students, empowering them to think critically and make clinically sound decisions to develop from novice to expert within the South African clinical nursing environment: “Thinking like a nurse” (Tanner, 2006b:205-209).

1.4 PARADIGMATIC PERSPECTIVE

The paradigmatic perspective refers to the researcher's assumptions as applied in this study. These assumptions are divided into the meta-theoretical, theoretical and methodological statements that serve as a framework within which the research was conducted (Botes, 1995:9) and are stated as follows:

1.4.1 Meta-theoretical assumptions

Mouton and Marais (1996:192) define meta-theoretical assumptions as non-epistemic statements that are not intended for testing. According to Botes (1995:9), the meta-theoretical assumptions are based on the researcher's view of the world and society. In this case, the researcher's assumptions are based on a Christian view and originate from a belief system that

centres on the Bible as source of truth. The Bible states that man was created by God on the sixth day of creation of the earth, in the image of God. Jesus Christ is the embodiment of love, caring and a standard to which every person must aspire (Bible, 2011).

I believe that nurses are committed professionals who embrace a holistic philosophy of care and that caring takes place in a specific context that relates to a specific environment. I believe that the environment of the nursing student is a dynamic environment that presents constant challenges. Therefore, I support the view of symbolic interactionism in that the undergraduate nursing student creates his/her own reality by attaching meaning to different situations. Meaning is expressed through words, and the symbolic meaning of words forms the basis for his/her actions and interactions. I acknowledge the fact that symbolic meanings can be different for each individual and for this reason I aim to capture the differences in meaning by ascribing to a relativist ontological position rooted within the constructivist paradigm. I am of the opinion that when clinical judgement is studied through a concept analysis method, a new understanding could be constructed from the data and this will then apply to the undergraduate nursing student in the South African nursing environment. Within this framework the researcher will define the meta-theoretical statements of man, health, environment and nursing.

1.4.1.1 View of man

The researcher views man as a God-created, unique, multi-dimensional human being that is called by God to love his/her fellow man as much as he/she loves himself.

For the purpose of this study, *man* can be a male or female and refers to the role players as learning accompanists (nurse educators), clinical accompanists (clinical facilitators, preceptors, mentors), undergraduate nursing students, professional nurses and health care professionals (doctors, social workers, physiotherapists, pharmacists, occupational therapist and dietician) and patients. The role players are involved in the learning process of the undergraduate nursing student and therefore have a duty in their profession to deliver nursing care based on scientific knowledge and with love to the best of their ability. They have to

demonstrate clinical judgement for the patients in their care, and thereby improving the health of his/her patients.

1.4.1.2 Health

The WHO (2010b) defines the concept health as a "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." The WHO (2010b) has an inclusive definition of health that hasn't changed since 1946. For the purpose of this study, health refers to the undergraduate nursing student's ability to move forward on the knowledge continuum from novice to expert so that the student is able to integrate and apply knowledge and demonstrates sound clinical judgement during the delivery of nursing care, thereby promoting the health of all the role players involved in the learning process (Kolb's model based on the experiential learning theory). This process involves concrete experimentation, reflection, abstract conceptualisation and active experimentation.

1.4.1.3 Environment

For the purpose of this study the environment refers to the ideal environment to enable the undergraduate nursing student to be empowered to clinical judgement. The environment in this study comprises all role players in interaction in the nursing environment which include the primary health care clinics (PHC) and curative hospital facilities that influences or impacts on the undergraduate nursing students' development of clinical judgement. This includes inhibiting factors such as change, a lack of resources, transformation, staff shortages, heavy workloads, and poor working conditions, practicing outside the scope of practice, the impact of HIV and AIDS and other chronic illnesses, all things that make up the patient's specific context. In this study the nursing environment includes the nursing education (theory) and clinical nursing environment (practice) as an enabling environment for learning that allows opportunity for personal and professional growth from novice to expert.

1.4.1.4 Nursing

"Nursing" means a caring profession practiced by a person registered under section 31 to support, cares for and treat a health care user to achieve or maintain health and where this is

not possible, cares for a health care user so that he or she lives in comfort and with dignity until death with the use of contextual clinical judgement skills. Nurses deal with a broad range of issues related to the condition of each patient, including complications and improvements, as well as annotations to clinical records and communications with physicians, and the nurse's judgement is at the heart of care delivery. Judgement guides action and decisions, not only of the nurse, but also of physicians and other care providers. It is therefore essential for the nurse to have observational and reasoning skills in order to make sound, reliable clinical judgements.

1.4.2 Theoretical assumptions

Theoretical assumptions are a reflection of the researcher's view of valid knowledge, which are based on theories, conceptual frameworks or models. The theoretical assumptions are epistemological in nature and are subject to testing with the intention of clarifying the research problem (Klopper, 2008:67). The researcher conducted a thorough study of existing theories and models in order to state the theoretical assumptions applied in the research study (Botes, 1995:5). The theoretical assumptions include the central theoretical statement, as well as the conceptual definitions or key concepts of the study.

1.4.2.1 Central theoretical statement

Clarity on the meaning of the concept clinical judgement within the South African nursing environment should ease the construction of a conceptual framework for the development of a teaching-learning strategy to empower undergraduate nursing students to develop clinical judgement to be applied in the nursing environment to facilitate informed decision-making.

The following concepts are regarded as central to this research study and will enable a common understanding between the researcher and the reader.

1.4.2.2 Conceptual definitions: clinical judgement, teaching-learning, competence, strategy, undergraduate nursing student, role-players

The concepts are defined and applied for this study as follows:

Clinical judgement

Clinical judgement refers to a person's competence to reach a conclusion or enlightened opinion following a process of observation, reflection and analysis of observable or available information or data (Phaneuf, 2008:1) in order to make an informed clinical decision. Thompson and Dowding (2002) refer to clinical judgement as the assessment of alternatives. For the purpose of this study the concept clinical judgement is the main theme under investigation and it is analysed to come to a conceptual definition that can aid the development of a clinical teaching-learning strategy.

Teaching-learning

Traditionally, "teaching" refers to instruction or transfer of knowledge from one to another with the intention to help the individual to learn by receiving knowledge and committing it to memory. Teaching thus means helping a student to learn (Bruce *et al.*, 2011:253).

The learning facilitator (all role-players) can only help students to learn and make it easier for them to learn, but can never learn for the students. Each student must master the knowledge, skills and competencies him- or herself (Ehlers, 2002:3-4).

Kolb (1984:1) and McLeod (2010:1) define "learning" as the process through which students create knowledge through transforming their experience. Bruce *et al.* (2011) and Klopper (2009:9) describe learning as a dynamic, active and cumulative process of knowledge construction that takes place through interpretation, understanding and conceptual change (new understanding) until the desired change in the behaviour of the individual results as competence of a certain skill.

For the purpose of this study teaching-learning refers to an interactive and cumulative process of knowledge sharing between the role-player as learning facilitator and the undergraduate nursing student. Nursing students construct meaning during these interactions in the nursing environment based on constructivist learning principles. This purpose of this process is to accompany an undergraduate nursing student until that student reaches competency and is capable of providing nursing care based on sound knowledge, decision making and clinical judgement (Bruce *et al.*, 2011:254).

Competence

Competence in nursing has been variously described in the literature as a more holistic term that entails the deliberate exercise of principled judgement based on rational knowledge and understanding (Bruce, 2003:147; Fish & Twin, 1997:184). The four conceptual tenets include having the necessary knowledge, skill (behaviour), attitude (interpersonal relationships) and values so that a student demonstrates competence in clinical judgement under various circumstances in a specific context (Alfaro-LeFevre, 2012:298; Bruce, 2003:147).

Strategy

A strategy refers to an effort or deliberate action that is implemented to out-perform a rival (Ehlers & Lazenby, 2006:2).

For the purpose of this study strategy refers to a pedagogical approach (Ekwensi, Moranski & Townsend-Sweet, 2006) as a long-term plan that is intended to achieve a particular purpose (Van der Horst & McDonald, 2003:121). Learning strategies determine the approach for achieving the learning outcomes. The strategies are usually tied to the needs and interests of students to enhance learning and are based on many types of learning styles (Ekwensi *et al.*, 2006). Jacobs, Vakalisa and Gawe (2004:70) describe a strategy as a blending and integration of a variety of teaching-learning elements in such a way that students achieve the desired outcomes and include the learning content, teaching methods, learning activities and media. This study proposes a clinical teaching-learning strategy from the constructivist learning approach in the nursing science to facilitate clinical judgement in undergraduate nursing students.

Undergraduate nursing student

This term refers to the undergraduate or pre-registration nursing student enrolled in a programme leading to registration as a professional nurse with the South African Nursing Council.

“***Nurse***” is a person registered in a category under section 31(1) of The Nursing Act no 33 of 2005 to practice nursing or midwifery by caring for and treating a health care user (health care

user refers to a patient and includes a male or female throughout the person's lifespan) to facilitate, maintain or restore health, and where this is not possible, care for a health care user so that he or she lives in comfort and with dignity until death.

Role players

This term refers to all learning accompanists (nurse educators), clinical accompanists (clinical facilitators, preceptors, mentors), undergraduate nursing students, professional nurses and health care professionals (doctors, social workers, physiotherapists, pharmacists), patients and teaching-learning material and/or –situation) and the activities of nursing performed to facilitates, maintain and restore the health of patients by applying clinical judgement.

1.4.2.3 Models and theories

According to Mouton and Marais (1996:22) the theoretical and methodological statements used by the researcher refer to intellectual resources. Theoretical beliefs describe the “what and why” of human behaviour and includes the models and theories with which the researcher identifies and support the research. Chinn and Kramer (2008:185) define a theory as a creative and rigorous structuring of ideas that projects a tentative, purposeful and systematic view of phenomena.

The initial decisions of the study are not based on a preconceived theoretical framework, but rather an acknowledgement of existing models and theories that facilitate the discovery of elements relevant to the phenomenon under study. The developed conceptual framework will be utilised to describe the underlying meanings, relationships and interconnectedness between the constructs of environment, nursing practice, nursing theory and professional nurse, in which clinical judgement is embedded (Brink, 2006:24; Burns & Grove, 2009:149; Rossouw, 2003:100-101).

In this research study the researcher supports teaching-learning from a modern day constructivist approach and supports the model for constructivist learning in the nursing science as described by Klopper (2009:6) to develop a teaching-learning strategy to facilitate

clinical judgement in undergraduate nursing students within the South African nursing-environment.

1.4.2.3.1 Constructivist perspective on learning

According to the constructivist perspective on learning, students actively and uniquely construct knowledge within the framework of their own experience and by reflecting on those experiences. Learning is intentional through construction and not absorption, nor unfocused discovery (Windschitl, 2002:1). The above-mentioned has implications for teaching and learning. Ramsden (1992:6) states that learning and teaching are constant interchanging activities. It is a matter of presenting students with situations that offer new problems that follow on one another. A mixture of direction and freedom are therefore needed. Students should be able to do their own experimenting and their own research. Educators guide them by providing appropriate materials. It is therefore essential for a student to understand something which he/she must construct for him/herself so that he/she must re-invent it (Burman, 2008:161).

1.4.2.3.2 Kloppe's model for constructivist learning in nursing science

According to this model (Kloppe, 2009) the educator and the student interact during the teaching-learning process and the educator should display certain characteristics and attributes, e.g. warmth, empathy, good communication skills, subject expertise, be a skilled learning facilitator, availability, role model and reflective, enthusiastic practitioner. The student is characterised by self-directedness, accumulated experience, a specific learning orientation, and problem-centered learning readiness. Motivation is a prerequisite for the achievement of the aim of interaction. The educator should be motivated to create a context conducive to learning, and the student should be motivated to become a lifelong learner through constructivist learning.

The student and educator enter the teaching-learning situation with the same aim, namely striving towards deep-holistic lifelong learning. The educator's approach toward teaching is student-centered, and the context conducive to learning is created to facilitate deep-holistic

lifelong learning. To create this context, the educator always refers to the student's existing cognitive framework to find a starting point and to begin the relationship on an equal level.

The creation of context further takes place through an interactive approach maintained by the educator. The interaction between the educator and student is based on reflection and this requires dialogue, discourse and narrative. When creating a context conducive to learning, the educator has to keep certain aspects in mind, e.g. assessment should be linked to the set outcomes and be approached holistically. Students should know the assessment criteria that will be used. Feedback is important and opportunities for self-assessment must be provided. The educator should also use teaching methods that focus on discussion, participation and interaction and examples of teaching methods that can be used are group discussion, seminars, symposiums, case studies, simulation and role play.

Figure 1.1 presents an outline of Klopper's model for constructivist learning in nursing science as applied in this research.

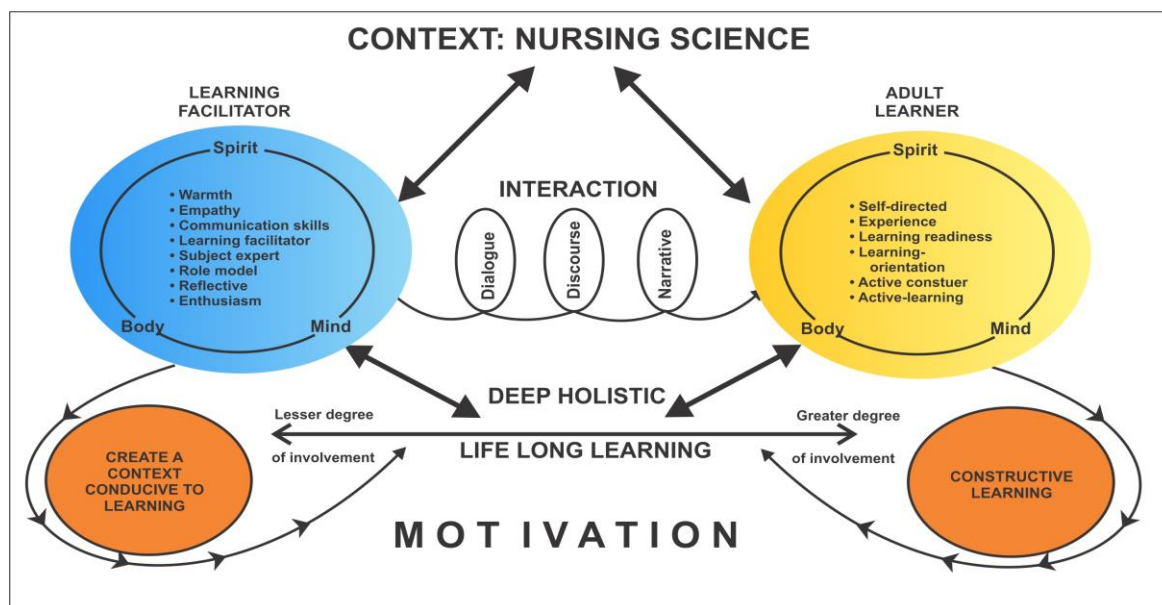


Figure 1.1: Klopper's model for constructivist learning in nursing science (Klopper, 2009:14).

The constructivist approach as supported by Klopper's model for constructivist learning in the nursing science (Klopper, 2009) is applied in this study. The researcher departs from the assumptions which emphasise the interplay between learning facilitator, student and the clinical nursing environment as context, as well as the active role the student plays in the construction of own knowledge and conceptual change. The facilitator's approach toward teaching will be student-centred and the context conducive to learning within the clinical nursing environment. Nursing students' attitudes, motivation, and beliefs can impact the learning process in the nursing environment. The socio-cultural and historical influences on the construction of knowledge are also emphasised (Bruning, Schraw & Ronning, 1999; Gredler, 1997; Klopper, 2009; Kretchmar, 2008:4; Schunk, 2004:310 and Yilmaz, 2008:167-168).

It is thus clear that the purpose of this study is to develop a teaching-learning strategy to facilitate clinical judgement in undergraduate nursing students that fit well into the constructivist learning perspective in the nursing science.

1.4.3 Methodological assumptions

Methodology refers to the science of determining procedures for scientific investigation. The researcher's methodological assumptions give direction to the methods to be used in the study and are the logical application of scientific methods to investigate phenomena of interest (Mouton & Marais, 1996:16).

The researcher's methodological assumptions are rooted in a philosophy of science and state the researcher's view of the nature and structure of science and research in a specific discipline (Babbie, 2007:4; Botes, 1995:5; Klopper, 2008:67). The methodological statements of this research are based on Botes's (1991:19) functional approach to nursing science. This approach was specifically developed for nursing practice and has a functional reasoning and open methodological approach (Botes, 1991:19-20) which suits the aim of this research to develop a teaching-learning strategy to facilitate clinical judgement in undergraduate nursing students in the South African nursing environment.

The aim of the functional approach is the application of knowledge to solve problems within a certain context in the nursing environment (theory and practice). In this study this approach is used to facilitate clinical judgement in undergraduate nursing students in the South African nursing environment. The approach centres on the scientific (pure research) and pragmatic (applied research in practice) aim of science. The scientists in favour of the pragmatic aim of science view it as essential that reliable knowledge be made applicable in practice with the purpose to improve the specific area of practice as the researcher is jointly responsible and an associate in practice.

1.4.3.1 The relation between nursing practice, nursing science and the philosophy of nursing science

Botes' functional approach is divided into three interconnected nursing activities that function in a specific relationship with each other (Botes, 1991:19-20).

The **first level** represents **nursing practice**. In this study the **first** level focuses on the undergraduate nursing student's interaction with all role players: Learning accompanists (nurse educators), clinical accompanists (clinical facilitators, preceptors, mentors), undergraduate nursing students, professional nurses and health care professionals (doctors, social workers, physiotherapists, pharmacists), patients and the teaching-learning material and/or –situation and the activities of nursing performed to facilitate, maintain and restore the health of patients by applying clinical judgement. The nursing practice forms the research domain for nursing, as it is in this level where pre-scientific knowledge is identified, questioned and analysed, to find/come to solutions (Botes, 1995:6). For the purpose of this study, the solutions will focus on fusion of theory and practice to facilitate clinical judgement in undergraduate nursing students through clinical accompaniment and role-modelling.

The **second level** includes **nursing research and theory** development. On this level the researcher executes the research process on the identified problem by making research decisions within the framework of research determinants, which include the researcher's assumptions, the research problem, the research objectives, the research context and the attributes of the research field. The results of the research are then incorporated in the

scientific knowledge content of nursing and directly applied to the nursing practice (Botes, 1995:6). Research identified the need for clinical judgement. In this research the concept clinical judgement is analysed within the South African clinical nursing environment. The concept analysis process allowed the construction of a connotative (theoretical) definition, identification and description of the empirical referents of clinical judgement. The conceptual or theoretical framework of this study aims to link the central concepts that were identified from the conclusions of two phases of the study into a new structure of meaning (see Figure 2: manuscript 3) that served as basis for the proposed strategy.

The researcher compiled the conceptual framework through:

- The identification of central concepts derived from the concluding statements of:
 - Phase 1: Clinical judgement within the South African nursing environment: A concept analysis (see Manuscript 1).
 - Phase 2: Professional nurses' understanding of clinical judgement: A contextual inquiry (see Table 1: Manuscript 2).
- The description of the components of the conceptual framework (see Components of the conceptual framework: Manuscript 3).
- A description of a conceptual framework (see Description of the conceptual framework: Manuscript 3).
- A diagram of the conceptual framework (see Figure 1: Manuscript 3), while the description of the conceptual framework portrays the context and related constructs embedded in an enabling teaching-learning environment to facilitate clinical judgement. From the conceptual framework a clinical teaching-learning strategy is developed to facilitate clinical judgement in undergraduate nursing students, as an application of the research outcome to improve nursing practice.

The **third level** includes the **philosophy of nursing** science and is a meta-theoretical activity which includes the analysis, order and evaluation of concepts, assumptions and methods from the first level (**nursing practice**) and second level (**nursing research and theory**)

development). The philosophy of science dedicates the purpose, methods and criteria of the truth of science and research.

From hermeneutic and dialectic paradigms the variable and personal nature of social constructions suggest that individual construction of new meaning is generated in the nursing practice and is elicited and refined only through interaction between and among the researcher and the participants. This generated knowledge facilitates insight, understanding and control of the nursing practice through value-orientated guidelines to guide nursing behaviour to facilitate/improve nursing practice. These guidelines are based on the values of the people in interaction and is thus context bound (Botes, 1991:21).

In this research the focus is on the conceptualisation of clinical judgement to develop a conceptual framework and to develop a teaching-learning strategy to facilitate clinical judgement within undergraduate nursing students based on the conceptual framework as research outcome.

1.5 RESEARCH METHOD: PHASES 1-3

The following table provides an overview of the research methodology and includes the research design, population and sample, data collection, rigour and data analysis.

Table 1.2: Overview of the research methodology planned for this study

RESEARCH DESIGN	DESCRIPTION
<p>An explorative, descriptive and contextual qualitative research design (Maree, 2007:257)</p> <p>Explorative and descriptive:</p> <p>Contextual:</p>	<p>Qualitative research is described as:</p> <ul style="list-style-type: none"> ○ delving into <u>the depths</u> of a phenomenon, in this case clinical judgement; ○ to discover the <u>complexity</u> and <u>meaning</u> of the phenomenon clinical judgement; ○ <u>holistically</u> study the phenomenon; ○ using a <u>precise, systematic</u> process to gather and <u>analyse</u> information. ○ The purpose is <u>exploration</u> and <u>description</u> to gain a <u>greater understanding</u> of the concept characteristics (connotations), which results a connotative (theoretical) definition (Burns & Grove, 2009:22; Morse (2003:833). Morse (2003:833) points out that qualitative methodology is used when little is known about the topic, the research context is poorly understood, the boundaries of a domain are ill-defined, the phenomenon under investigation is not quantifiable, the nature of the problem is not clear, or the researcher suspects that the phenomenon needs to be re-examined. ○ According to Kloppe (2008:68) qualitative studies are always contextual, as the data is only valid in a specific context. It is thus important to include a description of the context or setting in which the research is conducted. The nursing environment includes a higher education institution as well as public and private clinical facilities (primary health care clinics and hospitals) within the cultural diversity of the South African health context.

RESEARCH METHOD: Phase 1: Objective 1&2		DATA COLLECTION	DATA ANALYSIS
Sampling: Population	<p>Phase 1 - Objective 1: To explore and describe clinical judgement as a concept within the South African nursing environment.</p> <p>All available national and international sources of data in which the words clinical judgement appear (Walker & Avant, 2005:67).</p>	<p>Step 1:</p> <p>Literature related to clinical judgement was explored, interpreted and integrated and was described by means of Walker and Avant's method of concept analysis (2005) based on the original method of Wilson (1963). The method includes the following steps:</p> <ul style="list-style-type: none"> • Selecting a concept • Determining the aims or purpose of analysis • Identifying all uses of the concept • Determining defining characteristics • Identifying a model case • Identifying additional cases – borderline and contrary cases • Identifying antecedents and consequences 	<p>Different reasoning approaches to:</p> <ul style="list-style-type: none"> ○ systematise ○ deduce ○ condense ○ culminate in theoretical explanations (Burns & Grove, 2009:337). <ul style="list-style-type: none"> • Examination and analysis of identified sources. • Content analysis to identify the defining characteristics (connotations) of clinical judgement. • <u>Result:</u> a connotative (theoretical) definition.
Sample	<p>Purposive sampling applied in the selection of data as the researcher consciously selected the databases to gain rich data and a comprehensive understanding of the concept clinical judgement from various sources and professional disciplines (Burns & Grove, 2009:355-356).</p>		

Sample size	<p>The number of literature sources sampled was determined by the depth of information needed to describe the concept clinical judgement and to achieve saturation of information (Burns & Grove, 2009:361).</p> <p>The <i>population</i> was selected from the North-West University library and included South African and international journal databases: EBSCOhost and Google Scholar, books, dictionaries, thesauri, journals, theses and dissertations to review the literature, including all sources in which the term clinical judgement/clinical judgment appears¹ (Articles N=13 117; dissertations N=347</p>	<p>Data were collected and sifted for relevant information and incorporated into the study if it answered the proposed research questions (Burns & Grove, 2009:461).</p>	
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¹ “British English /South African English” spelling of clinical judgement refers also to non-legal judgement; and clinical judgment (without the e) refers to “American English” spelling and legal judgment.

	and books N=146). <i>Purposive sampling</i> of data was done according to the stated inclusion criteria (see Table 3: Phase 1) and the proposed study questions. This allowed the researcher to gain rich data and a comprehensive understanding of the concept from various sources (Burns & Grove, 2009:352).		
	Phase 1- Objective 2: To explore and describe the empirical referents of clinical judgement in order to construct a denotative (operational) definition	Step2: Empirical referents <ul style="list-style-type: none"> • Identification and description of the empirical referents of clinical judgement as described from the results of the concept analysis. • Literature integration 	Identification and description of empirical referents derived from the results of the concept analysis and the integrative literature control through an inductive approach that allowed the synthesis of a denotative (operational) definition of clinical judgement.
RESEARCH METHOD - Phase 2 - Objective 3&4		DATA COLLECTION	DATA ANALYSIS
	Phase 2 - Objective 3: To explore and describe the meaning, characteristics and process of clinical judgement;	In this phase, the researcher collected data through the use of the “ World Café ” method. The World café method	Data analysis approach Qualitative thematic content data analyses principles were used as described by Henning,

	<p>Objective 4: To explore and describe the factors that influence the development of clinical judgement within the nursing environment through triangulation of the results of focus group interviews (World Café method) with professional nurses within the nursing environment in the North-West Province.</p>	<p>implements seven <i>design principles</i> (The World Café, 2008; Koen, du Plessis & Koen, 2012) (see phase 2 - Manuscript 2).</p>	<p>Van Rensburg and Smit (2004); Du Plessis, Koen and Bester (2012). The application of document analysis as discussed by Blakeman, Samuelson and McEvoy (2013) was useful during data analysis of the World Café data.</p>
<p>Population</p>	<p>The study population included all qualified professional nurses working at community clinics, public and private hospitals in the Matlosana and Tlokwe sub-districts of the Kenneth Kaunda district, North-West province, where undergraduate nursing students are placed for clinical role taking (Bothma, Greef, Mulaudzi & Wright, 2010:201).</p>	<p>The method as qualitative data collection technique was appropriate and effective to collect a large quantity of rich data within a short amount of time. The World Café method is a combination of qualitative data collection techniques, such as interviewing, drawings and narratives and allows time for reflection (Koen <i>et al.</i>, 2012) According to Brown <i>et al.</i> (2005:2) the “World Café” is seen as a brainstorming tool that generates ideas and comments about clinical</p>	<p>The steps followed during data analysis:</p> <p>The unit of analysis was expressions that represented an answer/ idea/ suggestion with regard to these broad categories and overall theme: clinical judgement. Data was analysed by one researcher, while another acted as co-coder. Data was analysed independently according to the same steps of data analysis as mentioned below (Koen <i>et al.</i>, 2012). After analysing the data, the researchers had a consensus meeting to finalise the results.</p>
<p>Setting</p>	<p>The setting for the focus group interviews was at the NWU, Potchefstroom Campus.</p>		

<p>Sampling</p>	<p>The room used for the data collection was set up as a café to ensure a relaxed atmosphere (see photo 1: Manuscript 2). Four (4) tables were arranged to accommodate participants from different clinical facilities with a table host who acted as facilitator at each table. Each table was provided with paper, coloured pens and refreshments.</p> <p>Purposive sampling is appropriate when the researcher wants to select unique cases that can provide special information and where members of the population are specialised (Rossouw, 2005:113). The participants were selected to fit particular features of interest to the research study (Burns & Grove, 2009:344; Bothma <i>et al.</i>, 2010:201). The study sample comprised professional nurses who meet the following set criteria for inclusion as participants:</p>	<p>judgement as the specific topic in this research. The “World Café” method is a living network of conversations used for leading collaborative dialogue, sharing knowledge and creating possibilities for action in groups of all sizes around questions that matter.</p> <p>Permission to use the “World Café” name, logo, method and materials was granted, and copyright was respected (Annexure C). Apart from the “World Café” method the researcher also used facilitation strategies during a discussion session. This provided a full and rich description of the basic characteristics of clinical judgement. Focus group interviews form part of multiple data collection methods as in this study (phases 1&2). Data was captured using an audio tape recorder and transcribed verbatim for analysis. Field notes were collected to enrich the data. Questioning centred on the</p>	<p>The steps of data analysis:</p> <p>The coders analysed the data independently in the following steps: (1) a broad rough sorting of the sheets; (2) developing a general sense of the overall theme of clinical judgement; (3) Sheets were scanned through a second time; (4) from where broad categories were identified from the main phrases/ headings on the sheets; (5) keeping the broad categories in mind, sheets were separately looked through, grouping similar words and phrases together, comparing phrases; (6) sub-themes were identified. The coders engaged with the data through in-depth reflection, not only on words, but also the use of colour and sketches. Sub-themes were constantly compared with each other and with the main theme, clinical judgement, and grouped together to arrive at themes. Data saturation was reached on each sheet as it represents the views of a group. A draft framework of sub-themes and themes were</p>
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<p>Sample size</p>	<p>a) Professional nurses who have at least 3 years clinical experience;</p> <p>b) who are willing to give voluntary, written informed consent to participate in the research;</p> <p>c) who are able to communicate in Afrikaans or English; and</p> <p>d) who are prepared to have interviews audio-recorded.</p> <p>The sample size of this study depended on the availability of nurses who meet the inclusion criteria. Eleven professional nurses who met the inclusion criteria voluntarily took part in data collection (n=11).</p>	<p>following phrases:</p> <ul style="list-style-type: none"> • Explore and describe the meaning, characteristics and process of clinical judgement? • Explore and describe factors that influence the development of clinical judgement within the clinical nursing environment? 	<p>established from the data set. The remaining sheets were studied to enrich and refine the themes and sub-themes (Koen <i>et al.</i>, 2012).</p> <p><u>Consensus meeting:</u></p> <p>Identified themes and sub-themes were compared with raw data to assure that the results are a true reflection of the raw data (see World Café results-Phase 2: manuscript 2). Data saturation was reached in the data, as is apparent from Phase 2 and shows the 2 main themes and sub-themes that resulted from the data analysis.</p> <p>The themes that emerge from the focus group interviews were used together with the concepts identified from the conceptual analysis (phase 1: manuscript 1) and were triangulated in order to provide a true scientific basis for the conceptual framework (see phase 3 manuscript 3). The results highlight new insights gained from the research. Conclusions will be formulated and described as a result of the study.</p>
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RESEARCH METHOD - Phase 3 - Objective 5 & 6	DATA COLLECTION	DATA ANALYSIS
<p>Phase 3 - Objective 5&6: To describe and construct and visually represent a conceptual framework for an enabling learning environment to facilitate clinical judgement from a modern day constructivist approach within the South African nursing environment.</p> <p>STEP 1: Selected and define concepts</p> <p>The concepts of nursing environment, role-players in interaction with the undergraduate nursing student, critical thinking, reasoning, decision making and clinical judgement were selected and conceptually defined and structured in the conceptual framework on the basis of their relevance to the phenomenon clinical judgement (Burns & Grove, 2005:137).</p> <p>STEP 2: Develop relational statements</p> <p>In this study, all the selected constructs were studied by means of a literature review, which resulted in a description and diagrammatic presentation of the concepts. Reflective interaction by the undergraduate nursing student</p>	<p>Conceptual framework</p> <p>A conceptual framework is the development of an outline that specifically enhances the understanding of the particular phenomenon – clinical judgement in the selection and definition of concepts, the proposition of relationships between those concepts, the expression of statements in hierarchical fashion and diagrammatic presentation of the conceptual framework (Brink, 2006:24; Burns & Grove, 2009:149; Rossouw, 2003:100-101).</p>	<p>A conceptual framework that presents the context and related constructs embedded in clinical judgement within the nursing environment was described by following a deductive approach that investigated the underlying meanings, relationships and interconnectedness between the concepts (Walker & Avant, 2005:63-64; Burns & Grove, 2009:463; 2005:122)</p>

<p>and the role players during patient care, theory practice integration/fusion, critical thinking, reflection, reasoning, decision making and clinical judgement - that clearly stipulates the relationship between them (Burns & Grove, 2005:138-139).</p> <p>STEP 3: Construct a conceptual framework</p> <p>A conceptual map is portrayed by an inductive approach as a framework that illustrated the interrelationships of concepts in a diagrammatic layout (Burns & Grove, 2005:731). The conceptual framework was compiled of all the concepts necessary to diagrammatically explain and clearly portray the constructs embedded in clinical judgement within S.A nursing environment (Burns & Grove, 2005:139).</p>		
<p>Phase 3 - Objective 7: To synthesise a teaching-learning strategy for the creation of an enabling teaching-learning environment to facilitate clinical judgement from a modern day constructivist approach in undergraduate nursing students within the South</p>	<p>Conclusions from descriptions</p> <p>The themes that emerged from the focus group interviews (phase 2) were triangulated with the concepts identified from the conceptual analysis (phase 1). This confirmed this concepts (phase 3) as true</p>	<p>The researcher ensured openness, scrupulous adherence to a philosophical perspective, thorough-ness in collecting data, and consideration of all the data in the subjective theory and development phase (Burns & Grove, 2005:55).</p>

<p>African nursing environment.</p> <p>Step 1: Development of a clinical teaching-learning strategy from a modern-day constructivist approach and an in-depth literature study by interpretation and integration of the identified constructs (the underlying meanings, relationships and inter-connectedness between the constructs of the South-African clinical nursing environment and undergraduate nursing student as practitioner), in which clinical judgement is embedded.</p>	<p>scientific basis for the conceptual framework, and highlights new insights gained from the research.</p>	<p>Qualitative researchers tend to reject the terms reliability and validity in favour of credibility, transferability, dependability and conformability (Brink, 2006: 118). According to Botma <i>et al.</i> (2010:232), trustworthiness has four epistemological standards, namely truth value, applicability, consistency and neutrality. These have specific strategies, being credibility, transferability, dependability and conformability, along with authenticity. Table 1.3 shows the measures followed to ensure the rigour or trustworthiness of the study.</p>
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1.5.1 Rigour

The standards and principles of rigour guide the researcher to generate valid scientific knowledge. Rigour refers to the umbrella term used to encompass all strategies, namely trustworthiness, validity and reliability. In table 1.3 the universal standards for trustworthiness, validity and reliability are outlined is used.

Qualitative research is guided by four basic epistemological standards (Lincoln & Guba, 1985:290), which are as follows:

- The truth value of the research findings. This refers to the degree to which the truth of the findings can be trusted.
- Applicability of the research findings. This refers to the degree to which the research findings can be carried over to a larger population of similar phenomena or a similar context.
- Consistency of the research findings. This refers to the consistency of the research findings if the research is repeated in the same context with the same participants.
- Neutrality of the research findings. This refers to the manner in which the research is conducted to eliminate prejudices, interests and individual views.

Table 1.3: Universal standards for trustworthiness, validity and reliability

(*adapted from Botes, 2003:178; Klopper, 1995:9 and Klopper & Knobloch, 2010:318):

Universal standards	Qualitative approach (trustworthiness)	Application in research
- Clear definitions	<p>Theoretical validity is linked to the theoretical meaning or definition of a concept. To ensure the theoretical validity of the concept clinical judgement, the following processes will be followed:</p> <ul style="list-style-type: none"> ○ Concept analysis is a process during which all the core characteristics of a concept are identified and reflected in its definition (Botes, 2003:177; Mouton & Marais, 1996:63; Knobloch, 2007:31). The definition may be theoretical or operational, or both (Wilson, 1963). ○ Conceptualisation is a process of describing the key concepts in the research, as well as the grounding and integration of research within the accepted body of nursing knowledge (Botes, 1995:11-12; Knobloch, 2007:31). Babbie, Mouton, Vorster and Prozesky (2005:111) define conceptualisation as the process through which we specify what we mean when we use particular terms. 	<ul style="list-style-type: none"> • A theoretical definition was compiled from the research. • The key concepts in the research were described, grounded in literature and integrated with the accepted body of nursing knowledge

<p>Truth value is the confidence the researcher has in the accuracy of the findings of a particular inquiry, with reference to the research design, information, participants and the context in which the research was conducted (Lincoln & Guba, 1985:290; Klopper, 2009:17; Knobloch, 2007:31)</p>	<ul style="list-style-type: none"> ○ Credibility of a research study involves carrying out the research in such a way that the believability of the findings is enhanced and credibility is demonstrated (Polit & Beck, 2008:541; Polit & Hungler, 1997:304-305). The following techniques were used to ensure and document the credibility of qualitative research: ○ Prolonged engagement: sufficient time should be invested in the data collection activities, for building trust and rapport with participants so as to gain an in-depth understanding of the culture, language or views of the participants, to allow the researcher to test for misconceptions and misinformation and to ensure saturation of important categories (Babbie et al., 2005:277; Botes, 2003:180; Polit & Hungler, 1997:305) ○ Persistent observation: this means consistently pursuing interpretations in different ways (Babbie et al., 2005:277). It is a process where the researcher focuses on characteristics or aspects of a situation or conversation that are relevant to the phenomena being studied so as to provide more depth to the description (Polit & Hungler, 1997:305). 	<ul style="list-style-type: none"> ● The researcher engaged with the different focus groups of professional nurses until data saturation was reached and had established a firm degree of trust and rapport between herself and the participants. The researcher obtained a large amount of rich, textured and richly layered information. ● The researcher is using different kinds of data. ● The researcher used different data collection <i>methods</i>, as well as multiple <i>data sources</i>, namely focus group interviews with professional nurses (World Café method, which includes narratives, pictures and reflection) to validate the data from an in-depth literature review during the concept analysis of clinical judgement. This
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	<ul style="list-style-type: none"> ○ Triangulation: Includes a combination of multiple methods in a study of a phenomenon to portray it more accurately. There are different types of triangulation, including the triangulation of multiple data sources, multiple methods of data collection, multiple investigators, multiple perspectives to interpret a single set of data and multiple methods of data analysis (Botes 2003:181; Polit & Beck, 2008:54; Polit & Hungler, 1997:305). ○ Peer review & debriefing: This is a strategy for enhancing the quality of research through the use of external validation. Peers who are experts (colleagues or similar status) in either the method or the phenomenon being studied (or both) review and explore various aspects of the research process and expose the researcher to searching questions (Botes, 2003:181; Polit & Beck 2008:548). 	<p>enabled her to understand the phenomenon more comprehensively and to develop the teaching-learning strategy to facilitate clinical judgement in undergraduate nursing students.</p> <ul style="list-style-type: none"> • The researcher used a co-coder. During the review, the researcher presented written summaries of the data themes that had emerged and her interpretations of the themes. In some cases, she also played back portions of the taped interviews for the purpose of making her peers more familiar with the original content of the data . • A peer group review document to evaluate the teaching-learning strategy of the researcher was checked by a facilitator who is an expert in research.
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<p>Applicability is the extent to which the research findings of a particular inquiry can be transferred to other contexts and settings, and the capacity to generalise from the finding to larger populations (Klopper, 2009:17; Knobloch, 2007:33; Lincoln & Guba, 1985:297; Sliep <i>et al.</i>, 2001:69)</p>	<p>Transferability refers to the generalisability of the data, as well as the transferability of the data to other contexts (higher education institutions). In qualitative research the focus is on the quality of information obtained from the participant, situation or event, rather than the size of the sample. The depth and richness of the information provided allows for inductive generalisation from the sample to the target population (Botes, 2003:181; Burns & Grove, 2005:358). To ensure transferability the following techniques were used:</p>	
	<ul style="list-style-type: none"> ○ Saturation of data: the number of participants was determined by the depth of information needed to gain insight into a phenomenon as describe a concept or describe a process. The saturation of data occurs when additional discussion provides no new information, and when themes elicited become redundant and repetitive (Burns & Grove, 2005:358). ○ Thick description: The researcher provided a thorough in-depth description of the research context, transactions and processes observed during the inquiry to provide another researcher with sufficient information to evaluate contextual similarity 	<ul style="list-style-type: none"> ● Focus group interviews stopped when the research questions were answered: for example, consensus was reached, theoretical saturation was achieved, and sufficient information had been exchanged ● In this research study description was done throughout by reporting all data collection and data analyses, as well as findings and conclusions reached.

	<ul style="list-style-type: none"> ○ Purposive sampling: Deliberately selecting locations and participants that differ from one another. 	<ul style="list-style-type: none"> • In this research study purposive sampling was constantly used in objective one and two when sampling the participants, e.g. concepts of clinical judgement
<p>Consistency is the ability to reproduce the study with the same population in a similar context and to yield the same or comparable results (Klopper, 2009:17; Knobloch, 2007:34 and Sliep, Poggenpoel, & Gmeiner, 2001:69).</p>	<p>Dependability refers to the stability of data over time and conditions. All the techniques that apply to the strategy of credibility, namely prolonged engagement, persistent observation, triangulation, peer debriefing, member checks and negative case analysis, all indirectly impact on the strategy of dependability. In addition, the following techniques directly impact on the strategy of dependability:</p> <ul style="list-style-type: none"> • Stepwise replication • Inquiry audit 	<ul style="list-style-type: none"> • Stepwise replication: in this research study a step-by-step account was given on the whole research process, findings and conclusions. • Inquiry audit: an external reviewer evaluate the raw data (documents, interview notes), data reduction and analysis products, process notes and a running account of the process of inquiry, material relating to intentions and dispositions, instrument development information and data reconstruction products. This allows the dependability of the data. • In this research study the researcher was accompanied by a facilitator experienced in research.

<p>Neutrality is described as the application of impartiality in the collection, analysis and interpretation of data that are based singularly on the selected population to ensure the absence of personal biases, interests or perspectives of the researcher (Sliep <i>et al.</i>, 2001:70; Lincoln & Guba, 1985:300; Klopper, 2009:17; Knobloch, 2007:34).</p>	<p>Conformability: Reduces the degree of subjectivity inherent in the study and adds the idiosyncratic kind of objectivity that can be created in qualitative studies. Focuses on the characteristics of the data.</p>	<ul style="list-style-type: none"> • The techniques used to ensure the conformability of the data are the inquiry audit and triangulation, both already discussed under credibility and dependability.
<p>- Logic</p>	<p>Inferential validity - an inference is defined as the logical conclusion or general truth that a researcher arrives at from the statements. The term inferential validity can thus be described as the evaluation of the legitimacy and relevance of the statements through to the conclusions (Knobloch, 2007:32; Mouton & Marais, 1996:106-107).</p>	<ul style="list-style-type: none"> • This was done throughout the research study by describing the whole research process in depth.

1.6 ETHICAL CONSIDERATIONS

The ethical aspects of this study were discussed in accordance with the guiding ethical principles of the Department of Health (2004:3), which state that:

- All research conducted must be of a high standard that protects the well-being and rights of research participants, while ensuring that the ethical values of beneficence, justice and respect for persons are fulfilled.
- Research conducted in South Africa should be relevant to the national and individual needs of those who endure suffering and should culminate in the production of results that can be used to improve the health of individuals. The research is further required to be of a high standard using sound methodology that will answer the posed research questions, in addition to being grounded in literature.

This research study focused on analysing the concept of clinical judgement within the nursing profession and the knowledge acquired from this concept analysis and the conceptual framework can be applied to the nursing practice to facilitate well-being among the patients to which nursing care is provided to by the undergraduate nursing student.

- The planning, implementation and reporting of this research was grounded in literature and conducted at the highest standard possible, with every step of the research process being documented in detail so that peer review of the entire process is possible.
- Burns and Grove (2005:185) mention that the participants' privacy encompasses confidentiality and anonymity. For this reason, numbers A, B C etc. was used during interviews, labelling of audiotapes, field notes and transcripts to protect the identity of participants. Under no circumstances can the collected data be linked to the professional nurses' names. The researcher also explained that after completion of the research, the audio tapes that were used to record the information will be kept for safe keeping for five years and there after destroyed (Annexure F).

- The respect for persons is ensured through informed consent (Brink, 2006:33). Burns and Grove (2005:185) maintain that informed consent is the prospective participants' agreement to participate in research. This can only occur after assimilation of important information (Annexure F).
- During the recruitment of participants, the researcher explained and informed the nurses of the purpose of the research, the objectives, of the research and possible benefits. It is only after this information session that the participants were asked to give written consent to participate before starting the interview. The researcher also explained to participants that even if they have signed consent they still have the right to terminate participation (Annexure F).
- Scientific honesty of the study was ensured through competently, accurately and honestly conducting research and reporting research findings.
- The North-West University's Manual for Postgraduate Studies (2007) was used as a guiding framework to ensure the credibility, relevance and integrity of this research, with specific reference to the procedures and composition of a thesis, the code of conduct regarding plagiarism and guidelines to ethical research. The researcher followed the fundamental ethical principles of respect for the information sources and data bases by handling all information with confidentiality and responsibility (Brink, 2006:40-43).
- The investigator's competence is determined by technical and research competence that was made available through provision of an appropriate clinical and research environment, as well as high-quality research mentoring (Department of Health, 2004:3). In this study, the research design was within the study leaders' area of expertise and the resources needed to conduct the study were available at the North-West University library services.
- The research proposal was submitted to the North-West University Ethics Committee for ethical clearance (NWU-00107-13-S1: Annexure A) and the researcher sought permission from the Ministry of Health Research and Ethics Committee (Policy, Planning, Research, Monitoring and Evaluation Annexure B) as well as district

public hospital and private hospital management (Annexures B, H & I). The research study was approved by the Research Committee of the School of Nursing Science, Research Committee of the Faculty of Health Sciences and the Faculty Board of the Faculty of Health Sciences at the North-West University.

1.7 REPORT OUTLINE

The report was written according to the article model, rule A.7.5.7 of the NWU. The PhD candidate, Mrs AC van Graan, conducted the research and wrote the manuscripts. Prof MP Koen and Dr MJS Williams acted as facilitators and auditors by providing valuable guidance during the research process and critically evaluating research report writing, thereby adding expertise and enhancing the quality of the research. Three manuscripts were written according to criteria for the journal "Health SA Gesondheid". The references used for the articles submitted for publication are included at the end of each manuscript, and that used for section one (overview chapter) and the annexures are at the end of the report (section 3).


The research report is structured as follows:

Section 1:	Overview of the study			
Section 2:	Manuscripts: Submitted for publication			
	Manuscript 1	Phase 1	Objective 1	To explore and describe clinical judgement within the South African nursing environment
			Objective 2	To explore and describe the empirical referents of clinical judgement in order to construct a denotative (operational) definition.
	Manuscript 2	Phase 2	Objective 3	To explore and describe the meaning, characteristics and process of clinical judgement.

			Objective 4	To explore and describe factors that influences the development of clinical judgement within the clinical nursing environment through triangulation of the results of the focus group interviews (World Café method) with professional nurses within the nursing environment in the North-West Province.
	Manuscript 3	Phase 3	Objective 5	To describe a conceptual framework for an enabling learning environment to facilitate clinical judgement from a modern day constructivist approach within the South African nursing environment.
			Objective 6	To construct and visually represent a conceptual framework for an enabling learning environment to facilitate clinical judgement by following a modern-day constructivist approach within the South African nursing environment.
			Objective 7	To synthesise a teaching-learning strategy for the creation of an enabling teaching-learning environment to facilitate clinical judgement from a modern -day constructivist approach in undergraduate nursing students within the South African nursing environment.
Section 3	Evaluation of the research study, limitations and recommendations for research, nursing education and nursing practice.			
Bibliography of section one (Overview of the study)				
Annexures				

1.8 CONCLUSION

This section provides an overview of the intended research report. The background and problem statement that roused interest in the dilemma of clinical judgement was explored and the meta-theoretical, theoretical and methodological assumptions that directed the study were discussed. The section concluded with a brief description of the research design, research methods, ethical considerations and an outline of the report.



*Tell me and I forget,
Teach me and I remember.
Involve me and I learn “*

Judy Baer





SECTION TWO

MANUSCRIPTS



MANUSCRIPT ONE

CLINICAL JUDGEMENT WITHIN THE SOUTH AFRICAN CLINICAL ENVIRONMENT: A CONCEPT ANALYSIS

Submitted to "Health SA Gesondheid"



AUTHOR GUIDELINES – QUALITATIVE RESEARCH

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1. Immediate notification if submitted successfully
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4. Publication within 6 months after submission.

Aims, scope and review policy

Health SA Gesondheid is an interdisciplinary research journal in which only select articles of the highest scientific standard with human health as the main theme are published. The journal also aims to facilitate the gathering and critical testing of insights and viewpoints on knowledge from different disciplines involved in health service delivery. Articles on research work or review articles with the same theme shall also be considered for publication.

Papers are peer reviewed to ensure that the contents are understandable, valid, important, interesting and enjoyed.

All manuscripts must be submitted online. All articles in Health SA Gesondheid will undergo double blinded peer review.

The following contributions are accepted (word counts exclude abstracts, tables and references):

1. Original research (Between 3500 – 7000 words)
2. Book Reviews (Between 700-900 words)

Please see the journal's [section policies](#) for further details.

Manuscript Specifications:

Font Type: Times New Roman
Font Size: 12
Line Spacing: 1.5
Page Margins: Bottom & Top = 2.5cm
Left & Right = 2 cm

Length of Manuscript:

About 20 pages text only (maximum), excluding tables, figures and the list of references.

Manuscript Guidelines

Title: Informative but concise, In small capital letters, centered and in bold, font size 14, eg.: Names of questionnaires, countries, and or authors start with capital letters.

Author: Name(s), include full first name, e.g. Gert P. Roux, not G.P. Roux. Include the name of the department and the University of each author. The e-mail address, postal and phone number of the corresponding author should be included.

Abstract: Not more than 200 words, and should state concisely the scope of the work and the principal findings:

- ☐ the Objective of the study
- ☐ the population size, sampling strategy, sample size and response rate
- ☐ main statistical procedures used for analyzing the data
- ☐ most significant results of the study.

Opsomming: Always include an Afrikaans abstract of the article, please follow the same format and structure as indicate within the heading 'abstract'.

Key words: Use five [5] words not already included in the title, separated by a semi-colon.

Synopsis: Afrikaans articles (or articles in any other official SA language) must also have a synopsis of the article of between 500-600 words in English (the entire synopsis appears in italics).

We also ask that you upload a brief biographical note (entered into the 'Bio statement' box during the submission process). This note will appear online in our 'About the Author' section should your article be published with us.

Manuscript Contents

The manuscript contains five sections, namely the introduction, research design, results, discussion and the references. All these first-level headings (except 'introduction') appear in bold capital letters and are centered.

INTRODUCTION:

The introductory section normally contains the following eight elements; headings are indicated in [brackets]:

- (1) [**Key focus of the study**] A thought-provoking introductory statement on the broad theme or topic of the research (why should I even bother to read further?);
- (2) [**Background to the study**] Providing the background or the context to the study (explaining the role of other relevant key variables in this study);
- (3) [**Trends from the research literature**] Cite the most important published studies previously conducted on this topic or that has any relevance to this study (provide a high-level synopsis of the research literature on this topic);
- (4) [**Research Outcomes**] Indicate the most important controversies, gaps and inconsistencies in the literature that will be addressed by this study;
- (5) In view of the above (in 4) state the core research problem and specific research outcomes that will be addressed in this study;
- (6) [**Ethical Considerations**]
- (7) [**The potential value-add of the study**] Explanation of the study's academic(theoretical & methodological) or practical merit and/or importance (provide the value-add and/or rationale for the study); and
- (8) [**What will follow**] Provide the reader with an outline of what to expect in the rest of the article.

Tips on Introduction Section:

The first-level heading, **INTRODUCTION**, is **not** used. However, second-level headings may be used in this introductory section. These subheadings are flush with the margin, and are typed in lower case; bold starting with a capital letter.

If lists of bullet points are presented, they should be in the following format:

- ☐ *Longevity*. How long individuals live.
- ☐ *Prognosis*. How well an individual responds to challenges of disease or trauma.
- ☐ *Mental health*. General level of mental functioning

Avoid using lists that contain more than 10 bullet points.

Synthesis and Critical evaluation of the literature – Still apart of Introduction

A synthesis and critical evaluation of the literature (not a compilation of citations and references) should at least include or address the following aspects:

- (1) Conceptual (theoretical) definitions of all key concepts;
- (2) A critical review and summary of the themes emerging from previous research findings (constructs, research participants, research designs, outcomes, etc.) on the topic;

- (3) Including a review of existing approaches towards the measurement of relevant constructs; and
- (4) A clearly defined link should be established between formulated hypotheses and outcomes. The stated outcomes follow directly on the section where the literature was reported. .

RESEARCH DESIGN

The first-level heading **RESEARCH DESIGN** is typed in capital letters, centered and in bold. Only **three** secondlevel headings follow on the research design and they appear in lower case, bold and are flush with the margin.

Research approach

A brief description of the research approach followed in the study should be included. It should, for instance, explain from which qualitative tradition the study is and also motivate why this approach is specifically required.

The author(s) may state their scientific beliefs (ontology and epistemology) if these have an effect on the choice of the research approach.

Research methods

Under the research method the author(s) provide at least descriptions on the following third-level headings, namely: research context (setting), entrée and ethical considerations, data collection methods, recording of the data, data analyses, strategies employed to ensure data quality and reporting.

These headings are typed in italics and are flush against the margin. Fourth-level headings (italics, underlined) may be used under each of these headings (as described above).

Population Sampling

The qualitative sampling procedures used in the study, such as cueing, purposive sampling or snow-balling are described and motivated in this section.

Data collection methods

In this section the author(s) explain where the data was sourced and which data collection methods (e.g. semistructured or unstructured interviews, focus-groups) were applied. In some instances solicited documents are also used.

Data analyses

In this case the author(s) explain which methods of data analyses were applied. Different data analyses techniques result in different variations of qualitative research.

FINDINGS & DISCUSSIONS

The next heading is **FINDINGS & DISCUSSIONS**, which appears in capital letters, bold and is centered. This section presents the **results** of the investigation in the sequence of the formulated outcomes or formulated postulates/propositions (if applicable).

Tables and Figures are each presented on a separate page after the section

REFERENCES and appear in the same numerical order as they appear in the text. The positions of tables or figures are indicated in the text in the following way: <include Table 1 about here>

Therefore, no tables or figures appear in the text of an article, but are each displayed on a separate page for the type setter to see as a whole. If the sizes of the table or figure are too large it can be uploaded as supplementary files in Step 4 of the submission process. It is essential that all table and figures are clearly labelled.

CONCLUSION & RECOMMENDATION

The next heading is **CONCLUSION & RECOMMENDATION**, which appears in capital letters, in bold and centred.

This section normally contains the following eight elements:

- ☐ restate the main outcome of the study;
- ☐ reaffirm the importance of the study by restating its main contributions;
- ☐ summarise the results in relation to each stated research outcome or research hypothesis;
- ☐ link the findings back to the literature and to the results reported by other researchers;
- ☐ provide explanations for unexpected results;
- ☐ provide the conclusion and recommendations (implications for practice);
- ☐ point out the possible limitations of the study; and
- ☐ provide suggestions for future research.

Second and third-level headings may be used.

REFERENCES

References begin on a separate page. References cited in the text should all be included in the list at the end of the paper. Full references at the end of the paper, arranged alphabetically by surname, chronologically within each name, with suffixes a, b, c, etc. to the year for more than one per year by the same author. Note that the second and subsequent lines are indented.

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CLINICAL JUDGEMENT WITHIN THE SOUTH AFRICAN CLINICAL ENVIRONMENT: A CONCEPT ANALYSIS

Full author details:

Anna C. van Graan

School of Nursing Science, North-West University (Potchefstroom Campus)

E-mail: Anneke.VanGraan@nwu.ac.za

Magdalena P. Koen

School of Nursing Science, North-West University (Potchefstroom Campus)

E-mail: Daleen. Koen@nwu.ac.za

Martha J.S. Williams

School of Nursing Science, North-West University (Potchefstroom Campus)

E-mail: Marthyna. Williams@nwu.ac.za

Corresponding author:

Mrs. Anna C. van Graan

School of Nursing Science,

North-West University (Potchefstroom Campus)

Private bag X6001

Potchefstroom, South Africa, 2520

Tel: 082 6869659

E-mail: Anneke.VanGraan@nwu.ac.za

Authors' Contribution

Mrs. Anna C. van Graan completed this manuscript as part of a doctoral thesis for the degree Philosophiae Doctor in Nursing (Health Science Education) at the Potchefstroom Campus of the North-West University. Prof. Daleen Koen was her promotor and Dr. Marthyna Williams her co-promotor. The student completed the whole study process and the promoter and co-promoter gave feedback, structure and guidance during this process and also checked the work for final submission for examination as well as the article.

Summary:

Number of words: 6854

Pages: 20

Tables: 12

Figures: 1

Notes: all tables and figures will be included in the text for the purpose of the thesis as this should improve the interpretation of the text. For publication purposes all tables and figures will be added as annexures after the reference list according to the prescribed guidelines.

The manuscript is submitted to Health SA Gesondheid and accepted for publication in volume 20 of 2015.

ABSTRACT

Reform in the South African health care and educational system were characterised by the ideals that the country needs to produce independent, critical thinkers. Nurses need to cope with diversity in a more creative way, defining their role in a complex, uncertain, rapidly changing health care environment. Quality clinical judgement is therefore imperative as an identified characteristic of newly qualified professional nurses.

The *objective* of this study was to explore and describe clinical judgement through various data sources and review of literature to clarify the meaning and promote a common understanding through formulating the characteristics and developing a connotative (theoretical) definition of the concept.

An explorative, descriptive qualitative *design* was used to discover the complexity and meaning of the phenomenon. Multiple data sources and search strategies were used, for the time frame 1982-2013. A concept analysis was used to arrive at a theoretical definition of the concept of 'clinical judgement' as a complex cognitive skill to evaluate patient needs, adaption of current treatment protocols as well as new treatment strategies, prevention of adverse side effects through being proactive rather than reactive within the clinical nursing environment.

The findings emphasised clinical judgement as skill within the nursing environment, thereby improving autonomous and accountable nursing care. These findings will assist nurse leaders and clinical nurse educators in developing a teaching-learning strategy to promote clinical judgement in undergraduate nursing students, thereby contributing to the quality of nursing care.

Key words: *clinical decision-making, critical thinking, clinical nursing environment, clinical reasoning, problem-solving*

OPSOMMING

Transformasie in die Suid-Afrikaanse gesondheidsorg en onderwysstelsel is gekenmerk deur die ideaal dat die land onafhanklike, kritiese denkers moet produseer. Dit is nodig dat verpleegkundiges diversiteit op kreatiewe wyse moet kan hanteer en hul rol in 'n komplekse, omgewing van onsekerheid en snelle verandering moet definieer. Kliniese oordeel is daarom onontbeerlik as 'n geïdentifiseerde eienskap van die nuut gekwalifiseerde professionele verpleegkundige.

Die doelwit van hierdie studie was die ondersoek en beskrywing van kliniese oordeel as konsep, die vestiging van 'n algemene betekenis d.m.v. die identifisering van eienskappe en die daarstelling van 'n teoretiese definisie.

'n Verkennende en beskrywende kwalitatiewe ontwerp is gebruik om die kompleksiteit en betekenis van die fenomeen te ontdek. Verskeie databronne en soekmetodes is gebruik vir die tydsraamwerk van 1982-2013. 'n Konsep-ontleding is gebruik om die teoretiese definisie van 'kliniese oordeel' as 'n komplekse kognitiewe vaardigheid te formuleer om pasiënt behoeftes, aanpassing van behandelings protokol, nuwe behandeling strategieë en die voorkoming van nuwe effekte deur proaktiewe eerder as reaktiewe optrede binne die kliniese verpleeg omgewing.

Die bevindinge toon die noodsaaklikheid en belangrikheid van kliniese oordeel as kognitiewe vaardigheid wat alternatiewe behandeling van pasiënte kan evalueer en dus sal bydra tot die verbetering van outonome en verantwoordbare verpleegsorg. Die bevindinge behoort verpleegleiers en verpleegdosente te help met die ontwikkeling van 'n onderrig-leer-strategie om soedoende voorgraadse verpleegkunde-studente toe te rus met die vaardigheid van kliniese oordeel ten einde by te dra tot die kwaliteit van verpleegsorg.

Sleutelwoorde: *kliniese besluitneming, kliniese beredenering, kliniese verpleegomgewing, kritiese denke, probleem- oplossing*

Introduction

Studies indicate that changes in the structure of the South African health care system and nursing practice complexities require nurses to have analytical and problem-solving skills so that they can make appropriate clinical decisions underpinned by holistic professional competence (OECD, 2008; Pithers & Soden, 2000:237). Fish and Twinn (1997:187) emphasise that the achievement of such competence requires conceptual understanding, thus allowing knowledge to be used across a variety of health care contexts, which enables the nurse to better deal with the realities of patient care.

Focus and background of the study

Major transformation processes took place as a result of political, technological and educational reform (OECD, 2008). Education reform is mainly limited to three specific interventions by the South African government as education finance reform, curriculum reform, and the teacher rationalization process (Jansen & Taylor, 2003). The South African Department of Health has been faced with vast challenges regarding restructuring and establishing of a framework for a more equitable national health system. According to the African National Congress (1994) and Geyer, Naudé and Sithole (2002:11), there has been a shift from a fragmented, mainly curative, hospital-based service to an integrated, primary health care, community-based service. The Primary Health Care (PHC) approach leads the focus of health care to a concern for the underprivileged, using the principles of ‘availability, affordability, sustainability, accessibility and acceptability’. The Nursing Strategy for South Africa (2008) emphasised the impact of the global shortage of nurses as well as the change of South African (SA) health service delivery, which has not left nursing unscathed (Department of Health, 2008a; ANC, 1994a:19-20; Geyer *et al.*, 2002:11).

In South Africa the shortages are acutely felt with an estimated shortage of 44 780 nurses (Oulton, 2006; Rondganger, 2013). The South African Nursing Council’s (2013) nursing manpower-population statistics indicates that over 50% of the health care workers in South Africa are nurses, which results in 129 015 registered nurses serving a population of 52 982 000. These statistics indicate a ratio of 411:1 registered nurses and accentuate professional

nurses at the very core of health care provision. Nurses are also considered to be frontline staff in delivering safe and effective health care (Buchan & Calman, 2004:7; South African Nursing Council, 2013) and therefore the bulk of health care for patients and their families rests squarely on the shoulders of nurses (Geyer *et al.*, 2002). Consequently, the human-resource crisis in health care is most felt at a nursing practice level, as nurses were demoted to primary health care services without the necessary preparation and support due to an increase in workload, responsibilities beyond their scope of practice, a shortage of equipment and supplies, and rapidly changing work environments (Armstrong, Geyer, Mngomezulu, Potgieter & Subedar, 2008; Van Rensburg & Pelser, 2004; Walker & Gilson, 2004).

Van Rensburg and Pelser (2004:164) confirm that changes in the structure of the South African health care system have far-reaching effects on health care professionals in a number of ways. Their role and function changed dramatically from one of mainly caring for patients at their bedsides to a much wider, more demanding role. Larger sections of the population are now able to access the health care system due to the increasing burden of more complex health problems and chronic disease (Bright, Walker & Bion, 2004). It can be said that South Africa is experiencing a triple burden of diseases, namely communicable diseases associated with poverty; non-communicable diseases associated with lifestyles; and trauma and violence, most of these fuelling the HIV/AIDS epidemic. The situation is further complicated by the high unemployment rate and the influx of people into metropolitan areas. This has created an explosion of people living in squatter areas in over-crowded dwellings and the lack of basic infrastructure increasing the potential for health problems (Armstrong *et al.*, 2008). These health care services are publicly funded and free (treatment at all primary health care clinics) and available for a small fee to those able to pay (admission public hospitals) and thus accessible for all (Geyer *et al.*, 2002; Van Rensburg & Pelser, 2004; Pelser, Ngweni & Summerton, 2004). Rendering these services requires an increase of diagnostic and curative clinical skills in the health care settings (Department of Health, 2008a; Department of Health, 2011; Simpson & Courtney, 2002:89-91). The legislation and introduction of remunerated community services for newly qualified nurses since 2006, led to the rotation of nurses between clinical settings in the provision of comprehensive health care services as required (South Africa. 2005). Nurses are thus left extremely vulnerable, as they are not fully prepared clinically or educationally to treat patients requiring these comprehensive diagnostic and

curative clinical skills due to the increase in demand mentioned above (ANC, 1994a:19-20; Geyer *et al.*, 2002:11; Department of Health, 2008a).

In preparation for the professional nurse's role, undergraduate nursing students are expected to develop and integrate knowledge and practice to achieve conceptual understanding in order to make the necessary clinical decisions. This will have a positive impact on patient outcomes as required for competent, professional, patient-centred care. Conversely, poor clinical reasoning skills often fail to detect impending patient deterioration, resulting in a 'failure-to-rescue' (Aiken, Clarke, Cheung, Sloane & Silber, 2003). Aiken *et al.* (2003) indicate this as significant when viewed against the background of increasing numbers of adverse patient outcomes. Wilson, Runciman, Gibberd, Harrison, Newby and Hamilton (1995) found that 'cognitive failure' was a factor in 57% of adverse clinical events and this involved a number of features, including failure to synthesise and act on clinical information.

From an analysis of the South African Nursing Council's (SANC, 2003-2013) professional misconduct reports indicate a total of 1146 nurses (see Table 1.1:p.4) of which 790-professional nurses (see Table 1), were found guilty of misconduct, due to poor nursing care which ranges from failure to properly diagnose, mistakes made during the implementation of a prescribed course of therapy, and miscommunication. It can be concluded that clinical decisions and judgments made by nurses in particular, do not always comply with minimum expectations as reflected in the legal-ethical framework of nursing as a profession (SANC, 2008).

Table 1: South African Nursing Council's professional misconduct reports (SANC, 2003-2013).

Type of offence	Professional nurses misconduct reports 2003-2013
Maternity related	158
Medicine related	115
Poor nursing care	300
Sexual abuse of a patient	159
Physical assault of a patient	11
Section 36 (of the Nursing Act, 1978)	47
TOTAL	790

These expectations have been referred to for many years as the unique function of the nurse to assist the individual, sick or well, in the performance of those activities the patient would perform unaided if he/she had the necessary strength, will or knowledge (Henderson, 1966:15). More recently, the Royal College of Nursing (UK) emphasise the 'use of clinical judgment', which distinguishes nursing from earlier versions (RCN, 2003:3) and indicate the continuous adaptation of nursing to socio-political and cultural changes, in order to meet new challenges and role requirements to enhance the quality of patient care and accountability (Ebright, Patterson, Chalko & Render, 2003; Fish & Twinn, 1997:184; Fonteyn, 1991; RCN, 2003; Tanner, 1998:99). This subtle shift in focus from what nurses do, to how they think about what they need to do, increases the demand for higher-order and multiple thinking strategies. Strategies identified as logical reasoning, decision-making and judgement skills are thus needed at the forefront of nurses' professional identity for safe and quality clinical practice to avoid adverse events and patient harm (Benner, 1997:53; Nursing Act 2005 (33 of 2005); Paul & Elder, 2006; RCN 2003:3; Sturgeon, 2011:44).

Looking at different views in the literature such as those of Alfaro-LeFevre (2012:7, 8); Hoffman (2007:50-52); Krairiksh and Anthony (2001) and Laurie, Salantera, Chalmers, Ekman, Kim, Kappeli & Macleod (2001), Phaneuf (2008:2), Tanner (2006b:206, 207), Thompson and Dowding (2002, cited by Shaban, 2005), the terms clinical reasoning, problem solving, decision- making, critical thinking and clinical judgement are often used

interchangeably. These terms describe the process by which nurses collect cues, process the information, reflect on, and come to an understanding of a patient problem or situation. This process is followed by planning and implementation of nursing interventions, evaluation of the outcomes, reflection on and learning from the process as well as annotations to clinical records and communications with physicians. These interchangeably used concepts can be described as:

Definition of key concepts

Critical thinking. Critical thinking as an umbrella term includes reasoning within and outside the clinical setting. Clinical reasoning and clinical judgement are key aspects of critical thinking (Alfaro-LeFevre, 2012: 7-8).

Clinical reasoning. Alfaro-LeFevre (2012:7-8) refers to clinical reasoning as different ways of thinking about such patient care issues as determining, preventing and managing or teamwork and collaboration. Tanner (2006b:206-209) and Facione (2006), conceptualise it as the process by which nurses make clinical judgements as conclusions by selecting from alternatives, weighing evidence, using intuition and pattern recognition.

Clinical judgement. Clinical judgement refers to the result of clinical thinking or clinical reasoning to reach a conclusion following a process of observation, reflection and analysis of observable or available information or data (Alfaro-LeFevre, 2012:8; Phaneuf, 2008:1) in order to make an informed clinical decision. Thompson Aitken, Doran and Dowding (2013:1721); Thompson and Dowding (2002) refer to clinical judgement as assessment of alternatives. For the purpose of this study the concept of clinical judgement is the main theme under investigation and will be analysed to come to a conceptual definition in order to develop a clinical teaching-learning strategy to facilitate clinical judgement in undergraduate nursing students.

Nurse. Refers to a person registered in a category under section 31(1) of The Nursing Act no 33 of 2005 in order to practise nursing or midwifery by caring for and treating a health care user (health care user refers to a patient and includes a male, or female throughout their

lifespan) to promote, maintain or restore health and where this is not possible, cares for a health care user so that he or she lives in comfort and with dignity until death.

Nursing profession. This term refers to the context of nursing, which is inclusive of the nursing environment, nursing practice and the nurse practitioner (undergraduate nursing student). It further includes aspects of the health care sector, the philosophical framework of nursing in South Africa, theories of care, and the legal-ethical framework of the nursing practice, as it relates to the concept, clinical judgement (Nursing Act 2005 (33 of 2005); RCN, 2003).

Problem statement

In conclusion, it is clear that nurses need to apply higher-order cognitive thinking strategies in order to seek a broader outlook, creative solutions and multiple pathways to reach a feasible solution. Recent reforms in the South African health and educational system were characterised by the ideals that the country needs to produce independent, critical thinkers who are able to question, weigh evidence, make informed judgements and accept the incomplete nature of knowledge as well as influence change and cope with diversity in a more creative way (South Africa, 1996:22; SANC, 2005). In defining their role in a complex, uncertain, rapidly changing health care environment, quality clinical judgement is imperative as an identified characteristic of the newly qualified professional nurse (SAQA, 2011:4-6). Despite its importance in care delivery, a lack of attention and research in South Africa, it cannot be concluded that the international research findings are transferable to the South African health context. In order to truly comprehend the effect it currently has in the South African clinical nursing environment, it should be recognised that there is a paucity of information on clinical judgement and clarity on the meaning of the concept of clinical judgement, should be sought.

RESEARCH DESIGN

Research approach

In this study an explorative, descriptive and qualitative design was used (Moore, 1983:205-206; 216-217; Morse, 2003:833). The *objective* of this study was to explore and describe clinical judgement as a concept by using the eight- step process of concept analysis method of Walker and Avant (Walker & Avant, 2011: 160) which is based on the original method of Wilson (1963) as a method of inquiry. In this process the concept is broken down and dissected into its most basic elements through an inductive approach, so that its unique defining characteristics (attributes/connotations) can be identified, and the exact meaning of the concept clarified to result in connotative (theoretical) definitions of the concept (Burns & Grove, 2009:122; Walker & Avant, 2011:159-160). A connotative (theoretical) definition describes the ‘sense’ of a concept, or the meaning and intention we have when we use the concept (Mouton & Marais, 1996:58-59). These results serve to increase insight and understanding of the concept of clinical judgement (Burns & Grove, 2009:22; Creswell, 2005:15; Morse, 2003:833; Mouton & Marais, 1996:43, 44; Polit & Hungler, 1997:20; Simmons, 2010:1152).

Research method

Study population, sampling and setting.

The *population* was selected from the North-West University library and included: South African journal database or SAePublications, international journal databases: EBSCOhost (Medline, Soclindex, Academic Search Premier, CINHALL, PsycINFO and ScienceDirect) and Google Scholar, books, dictionaries, thesauri, journals, theses and dissertations from the North-West University library and inter-library loans, as well as the World Wide Web, were used to review the literature, including all sources in which the term clinical

judgement/clinical judgment emerged² (Articles N=13 117; dissertations N=347 and books N=146).

Purposive sampling of data was done according to the stated inclusion criteria (see Table 2) and the proposed study questions. This allowed the researcher to gain rich data and a comprehensive understanding of the concept from various sources (Burns & Grove, 2009:352).

During the *first phase* of the study, dictionaries, encyclopaedias and thesauri within the disciplines of nursing, psychology and medicine were used in the concept analysis process. These sources were searched using the keyword ‘clinical judgement or clinical judgment’.

This process yielded N=154 dictionary/encyclopaedia publications (see stage 1 – search strategy summary in Table 2) to further reduce the volume publications to n=24 with adjustments for double entries and no definitions.

Sample size. The number of literature sources sampled was determined by the depth of information needed to describe the concept of clinical judgement, and to achieve saturation of information (Burns & Grove, 2009:361) A summary of the relevant dictionaries used is indicated in Table 2 below.

² “British English/South African English” spelling of clinical judgement refers also to non-legal judgement and clinical judgment (without the e) refers to “American English” spelling and legal judgment

Table 2: Summary of the number of relevant dictionaries used

NWU library catalogue	Original Number Retrieved	Duplications/ Latest Editions	No Definition Available	Number Used
Dictionary reference: Phrase Clinical Judgment/Clinical Judgement				
English dictionaries	18	7	8	3
Nursing dictionaries	19	5	6	6
Medical dictionaries	22	9	9	4
Psychology dictionaries	17	7	7	3
Encyclopaedia and dictionary	30	6	23	1
Psychology encyclopaedia and dictionary	1	0	0	1
Medical encyclopaedia and dictionary	2	0	1	1
Nursing encyclopaedia and dictionary	2	0	1	1
Internet dictionary reference: Phrase Clinical Judgment/Clinical Judgement				
Dictionary thesauri	0	0	0	0
Medical dictionary	3	1	1	1
Encyclopaedia	38	6	30	2
Wikipedia encyclopaedia	2	1	0	1
154 dictionaries retrieved		Total number of used		24

The *second phase* included a multistage search and the World Wide Web, books, theses, dissertations and journals were used as an integrative literature review to confirm the findings of the concept analysis (see Table 4/ Figure 1). They were searched using the keyword ‘clinical judgement or clinical judgment’ and nurs* included in the *title* or *abstract* was retrieved, yielding a total of 13 464 publications. Due to the volume of the data retrieved additional limits were placed and had to comply with the following criteria as indicated in Table 3:

Table 4: Summary of the relevant databases and literature sources used

Databases		Keyword /option Clinical judgement or Clinical judgment, AND nurs* English Date: 1982-2013 Peer reviewed for all searches	Number assessed	Number applicable by title	Number applicable by abstract	Number abstracts/ articles Used
MEDLINE	One search	Additional criteria/database Nursing practice Professional nurse Nursing education Nurse/patient decision-making Critical thinking Clinical reasoning	549	12		
Psych INFO						
Academic Search						
Premier						
Socl Index						
Science Direct						
CINHAL				29		
Sae Publications				Additional criteria/ database Nursing practice Professional nurse Nursing education Nurse/ patient decision-making Critical thinking Clinical reasoning	52	
Books + interlibrary loans		10				
e-Books		10				
PQDT		Full text Decision-making Critical thinking Clinical reasoning	41	13	1	
Google Scholar: articles		Decision-making Critical thinking	286			
		Clinical reasoning				
World Wide Web (BookOs) e-Books			100 27 1145	25	129	
Total number of used						77

Table 3: Concept analysis search criteria

Inclusion criteria:	Exclusion criteria:
<ul style="list-style-type: none">• The language of the data must be <u>English</u> to allow understanding of the text	<ul style="list-style-type: none">• Editorials• Letters to the Editor
<ul style="list-style-type: none">• Within the nursing context	<ul style="list-style-type: none">• Book reviews
<ul style="list-style-type: none">• The articles must be peer-reviewed	<ul style="list-style-type: none">• Commentaries
<ul style="list-style-type: none">• The articles have to be published within the timeframe of January 1982 (when the scientific nursing process with focus on critical thinking and judgement was refined and applied in various health services) until June 2013 (time of data collection).	<ul style="list-style-type: none">• Papers with subject terms related to legal and financial concepts were filtered out of the search, as the researcher only wanted to use those definitions or descriptions of clinical judgement that are related to care giving/nursing care to people in a clinical health care environment.

Strict record was kept of each step of the sampling process and detailed information documented on each source used, so that the researcher's decisions and study results could be trailed and evaluated if so desired (Walker & Avant, 2011). The process that was followed by the researcher in the study during the integrative literature review (phase 2 of the study) is outlined in Figure 1.

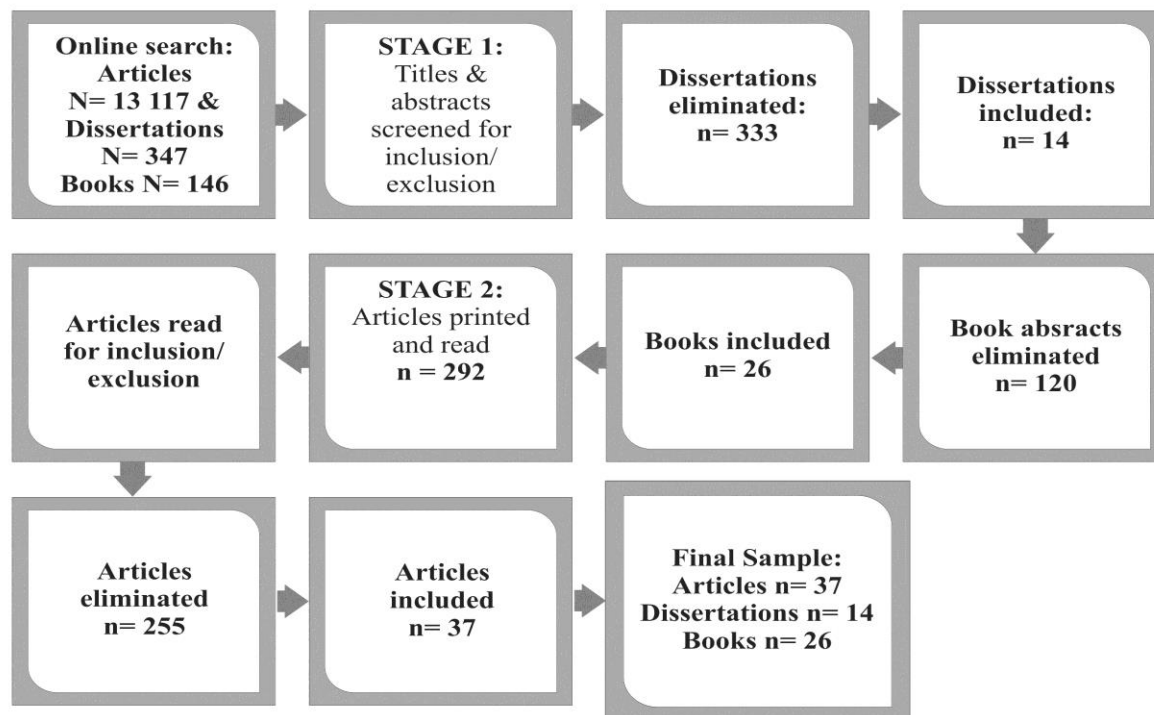


Figure 1: Integrative literature review strategy

Data collection

The data collection techniques are illustrated and explained in the steps of the concept analysis process of Walker and Avant (2011) (see Table 5), in order to clarify the different methods' contribution to the understanding of the concept clinical judgement as applied in this study.

Table 5: Walker and Avant's eight-step concept analysis method as applied

Steps	Walker and Avant's eight-step method of concept analysis
Step 1	Select a concept
Step 2	Determine the aims or purpose of analysis
Step 3	Identify all the available uses of the concept
Step 4	Determine defining attributes (connotations/ characteristics)
Step 5	Construct a model case

Step 6	Identify a borderline and contrary case
Step 7	Identify antecedents and consequences
Step 8	Define empirical indicators (denotations) (will be done in Phase 2 of study)

(Walker & Avant, 2011:160)

Rigour: Rigour is the umbrella term used to encompass all strategies, namely trustworthiness, validity and reliability as indicated in Table 6.

Table 6: Universal standards for trustworthiness, validity and reliability

Universal standards	Application of trustworthiness
Clear definitions	<p>Theoretical validity of the concept of clinical judgement were ensured by following these processes:</p> <ul style="list-style-type: none"> • All the core characteristics of the concept clinical judgement were identified and reflected in a theoretical definition by a concept analysis process (Botes, 2003:177; Mouton & Marais, 1996:63; Jooste, 2010:318; Knobloch, 2007:31; Wilson, 1963). • The key concepts in the research meaning were described through the process of conceptualisation as well as the grounding and the integration of research (Babbie <i>et al.</i> (2005:111); Botes, 1995:11-12 and Knobloch, 2007:31).
Truth value	Credibility was assured through a multi-phase literature review from which 154 definitions/uses of clinical judgement were identified.
Applicability	Transferability: Data saturation occurred after analysis of 34 definitions when additional sampling provided no new information, and when themes elicited became redundant and repetitive (Burns & Grove, 2005:358).

Universal standards	Application of trustworthiness
Consistency	<p>Dependability was assured by stepwise replication: a step-by-step account was given of the whole research process, findings and conclusions.</p> <ul style="list-style-type: none"> • Inquiry audit: the researcher was accompanied by a promoter experienced in concept analysis research which allows for achieving dependability of the data (Babbie, Mouton, Vorster & Prozesky, 2005:278; Polit & Hungler, 1997:307).
Neutrality	<p>Confirmability: Reached by inquiry audit as all raw data, analysis products and theoretical notes relating to trustworthiness were kept to show transparency of the research process. The techniques used were the inquiry audit and triangulation (discussed under credibility and dependability) (Jooste, 2010:323).</p>

Sources: Adapted from (Botes, 2003:178; Kloppe, 1995:9; Kloppe & Knobloch, 2010:318).

Ethical considerations: Ethical permission was obtained from the North-West University ethics committee (NWU-00107-13-S1) (Annexure A) as well as research experts who also scrutinised the research proposal during a formal public defence.

The study results will follow as executed under the heading Findings and Discussions.

FINDINGS AND DISCUSSIONS

Results

Step 1: Select a concept

The selected concept was of interest to the researcher as clinical judgement is a complex and relatively confusing term which is often used interchangeably with the terms clinical reasoning, problem solving, decision-making and critical thinking. Clinical judgement is viewed as an essential cognitive nursing skill and has become synonymous with the scientific nursing process model of nursing practice as problem-solving activity (Tanner, 2006b:204). Clinical judgement is tremendously complex and changes over time. The cultural and nursing complexities of South Africa contribute to possible changes. Providing competent individualised nursing care is thus crucial and therefore, conceptualisation of the phenomenon is necessary (Walker & Avant, 2011:160). On the basis of the identified problem, clinical judgement was chosen as the central concept.

Step 2: Determine the aims of analysis

Walker and Avant (2011:161) acknowledge that a concept analysis should never be considered as a finished product, but work-in-progress as concepts change over time. In this study the concept analysis aimed to promote a common understanding and to clarify the meaning of clinical judgement by formulating the characteristics and developing a connotative (theoretical) definition. This analysis will therefore add to the existing theory of the concept, as clinical judgment is an essential component of clinical/professional competence and moral development. These findings will assist nurse leaders and clinical nurse educators in supporting undergraduate nursing students to develop clinical judgement as reasoning effectively contributing to the quality of health care (Ferguson, 2006:2; Walker & Avant, 2011:161).

Step 3: Identify all uses of the concept

Clinical judgement is used interchangeably with higher order cognitive skills as decision-making, critical thinking and clinical reasoning and mostly appears in subject dictionaries and scientific literature sources. Due to the use of the British English spelling (clinical judgement) in South Africa, the American English spelling (clinical judgment) of the concept was also used (see footnote). The common uses of the word ‘clinical judgment’ and ‘clinical judgement’ were explored during this *first phase* of the study, data collection using dictionary, thesauri, subject dictionary and encyclopaedic definitions as well as descriptions from scientific literature sources from the North-West University library and World Wide Web (see Table 2). Psychology, nursing and medical dictionaries were used to limit bias in the understanding of the concept (Burns & Grove, 2009:355-356; Walker & Avant, 2011:161-162). For this research, 34 of the definitions/uses of clinical judgement were identified and documented (see Table 7). Clinical judgement as concept is difficult to define as evidenced by the various definitions found from the literature. In the following section excerpts of the standard dictionary definitions and the sourced literature definitions will be discussed.

Table 7: Definitions/uses of the concept of clinical judgement

Definitions/uses of the concept of clinical judgement	
1.	Is an <i>informed opinion</i> that relates <i>observation</i> and <i>assessment</i> of patients to identifying and evaluating alternative nursing options (Standing, 2011a:7).
2.	A flexible and nuanced ability to <i>recognise salient aspects</i> of an undefined clinical situation, <i>interpret their meanings</i> and using <i>pathophysiological and diagnostically</i> aspects of a patient’s clinical presentation of disease... but also the <i>illness experience</i> (Tanner, 2006b:204).
3.	Has four dimensions, namely <i>noticing, interpreting, responding and reflecting</i> . The level of ability a nurse uses to engage in effective noticing varies with the <i>context</i> , the <i>nurse’s background</i> and the <i>nurse’s relationship with the patient</i> (Tanner, 2006b:208).
4.	Critical skills are important to <i>evaluate</i> and <i>prioritise the data</i> presented by the patient to the nurse practitioner from where they need to carefully formulate an <i>appropriate</i> differential diagnosis that will dictate and direct patient care and treatment. This key outcome is referred to as clinical judgement (Gorton, 2013:1).

Definitions/uses of the concept of clinical judgement

5. Having an *idea*, a *clear opinion* following a *period of reflection* whereas the term *clinical* indicates that it is *related to the patient*. Clinical judgement requires *intellect*, to pay attention *to reason* and to summarise in order to achieve logical deduction. *Knowledge* is necessary in order *to observe*, *to identify relevant information*, *to identify relationships* among given elements and to reason (Le Grant Robbert, as cited in Phaneuf, 2008:1).
6. *Clinical reasoning* and clinical judgement are reciprocal and clinical reasoning informs judgement, which informs reasoning while *critical thinking* is foundational to both (Tanner, 2006b; 208).
7. An *interpretation or conclusion* about a patient's needs, concerns or health problems and/or the *decision to take action* (or not) use or modify standard approaches or compromise new ones as deemed appropriate by the *patient's response* (Tanner, 2006b: 204).³
8. A true correct summary of the patient's situation. It also has a *moral dimension* and she must seek to place her in the patient's place (Nissen, 1884:132).
9. The *outcome of critical thinking* in nursing which includes evidence, meaning, and outcome achieved (Pesut, 2001:213).
10. Those *thinking and evaluative processes* that focus on a nurse's *response to a patient's illness* – structured and *multilayered problems* (Lasater, 2007: 269).
11. The application of the nurse's *knowledge and experience* in making decisions about patient care (National Council of State Boards of Nursing (NCSBN), 2005:2).
12. The conclusion or *enlightened opinion* at which a nurse arrives following a process of *observation, reflection* and *analysis* of observable or available information or data (Phaneuf, 2008:1).
13. Critical thinking is a judgement process about what to believe and what to do about the symptoms (evidence) the patient is presenting with... and life circumstances (context) and using the knowledge and skills acquired over nursing course training to anticipate the likely effects of a chosen treatment or action (consideration of evidence and criteria and finally monitor the eventual consequences of the delivered care) (Facione, 2013:112).
14. Is contextual decision-making. It is an interpretation of the assessment of the clinical situation and associated action or response (INASCL Board of Directors, 2011, as cited in Frith & Clark, 2013:112).
15. Follows from a clinical grasp/ understanding the patient's problems... refer to the ways in which nurses come to understand the problems, issues or concerns of patients, to attend to salient information, and to respond in concerned and involved ways (Benner, Tanner and Chesla, 1996:2).

¹ “British English/South African English” spelling of clinical judgement refers also to non-legal judgement and clinical judgment (without the e) refers to “American English” spelling and legal judgment

Definitions/uses of the concept of clinical judgement	
16.	The deliberate, conscious decision-making characteristic of competent performance and the holistic discrimination and intuitive response typical of proficient and expert performance (Dreyfus & Dreyfus, 1986).
17.	A flexible and distinct ability to recognise salient aspects of an undefined clinical situation, to interpret their meanings, and respond appropriately (Tanner, 2006b: 204).
18.	Consists of informed opinions and decisions based on empirical knowledge and clinical experience developed by extensive direct patient contact and broader and deeper knowledge gained from experience and include observation, evaluation of data and draw valid conclusions about possible alternative meanings and knows what to do about it. Clinical thinking and clinical reasoning are both important in clinical judgement to recall facts recognising patterns (Thompson and Dowding, 2009:3).
19.	Clinical decision-making is a cognitive process concerned with problem recognition... Evaluation and choice is part of the judgement process. Clinical judgement is the outcome of the assessment. Clinical judgement implies the skills of critical analysis through which the clinician evaluates the status and quality of the presenting phenomenon or condition and forms an opinion or conclusion (inference) about what is (or will be); it is an evaluation and choice between alternative courses of action (Sque, Chipulu & McGonigle, 2009:236).
20.	Exhibit the ability to generate new ideas, expression of the ideas and flexibility to move between the ideas (Nurses as Teachers, 2007).
21.	In patient behaviours and putting facts and observations together to form a meaningful whole and act on the resulting information in an appropriate way (Chitty & Black, 2011:188).
22.	When judgments are carried out in health care settings by professionals they become 'clinical judgements'. Weiss, Shanteau and Harries (2006:445) suggest that these judgements should be considered as opinions about other people which include the integration of information (observations, health status and functional ability or predictions of future behaviour) to reach an evaluation of assessment (Crow, Chase & Lamond, 1995:214).
23.	The application of information based on actual observation of a patient combined with subjective and outcome data that lead to a conclusion (Mosby's Medical Dictionary, 2009).
24.	Human judgment involves managing uncertainty about problems encountered, alternative solutions available, and a person's ability to cope (Hammond, 2007:22).
25.	The 'assessment of alternatives' regarding possible courses of action, and decision-making, 'choosing between alternatives', is a focus of psychological inquiry (Thompson <i>et al.</i> 2013:1721; Dowie, 1993:8).
26.	The process by which the nurse, decides on data to be collected about a client, interprets the data, arrives at a nursing diagnosis and identifies appropriate nursing actions, involves problem solving, decision-making and critical thinking (Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, 2003).
27.	Cognitive or thinking process used for analysing data deriving diagnosis, deciding on diagnosis and evaluating care (Mosby's Medical Dictionary for Health Professionals and Nursing: 2012).

Definitions/uses of the concept of clinical judgement	
28.	The application of information based on actual observation of a patient, combined with laboratory findings and the health care worker's training and experience in determining a diagnosis (Mosby's Medical, Nursing and Allied Health Dictionary, 1998).
29.	The ability to recognise the relationship of ideas and to form correct conclusions from those data as well as from experience (Mosby's Medical Dictionary for Health Professions and Nursing, 2012).
30.	Is the cognitive process by which a clinician estimates a clinically relevant parameter for an individual patient The product of that process is clinical judgement (Weiner & Craighead, 2010).
31.	The critical decisions made on the basis of scientific observations but with the added skill provided by long experience of similar cases. To this must be added an innate ability to make balanced judgments based not only on the state of the patient and his/her predictable future but also on some consideration for the patient's overall well-being and the client's financial status and degree of psychological, or in some cases actual, dependence on the patient (Miller, 2003).
32.	Judgement is the process of forming an opinion or evaluation. Ethical judgement is based on ethical conduct and moral principles. Nurses are accountable for decisions regarding patient care based on their assessment. Clinical judgement and reasoning, including clinical decision-making and critical thinking, forms the cornerstone of clinical practice (Jooste, 2010:54; Thompson and Stapley, 2011:2).
33.	As 'the assessment between alternatives,' the choosing between alternatives, and argues that judgements are always in some way an assessment of the future. Information regarding this future is required (Dowie, 1993 as cited in Thompson & Dowding, 2009:5; Gottlieb, 2013: 208).
34.	This could be considered as the process of using different clinical information about a patient to make an assessment of her or his current health status (Dowding, & Thompson, 2003:50).

Conceptualising clinical judgement in health care

Standard dictionary definitions provided a conceptual starting point. According to the Miller-Keane Encyclopaedia and Dictionary of Medicine, Nursing, and Allied Health (2003) clinical judgement is the process by which the nurse decides on data to be collected about a client, makes an interpretation on the data, arrives at a nursing diagnosis and identifies appropriate nursing actions. This involves problem solving, decision-making and critical thinking.

Miller-Keane Encyclopaedia and Dictionary of Medicine, Nursing, and Allied Health (2003) as supported by Mosby's Medical, Nursing and Allied Health Dictionary (1998) and Mosby's Medical Dictionary for the Health Professions and Nursing (2012) accentuate that critical decisions made on the basis of scientific observations but with the added skill provided by

long experience of similar cases. To this must be added an instinctive ability to make balanced judgments based not only on the state of the patient and his/her anticipated future but also on some consideration for the patient's overall well-being and the client's financial status and degree of psychological, or in some cases actual dependence on the patient. The Medical Dictionary for Health Professionals and Nursing (2012) supported by Sque *et al.* (2009:236) indicate that a cognitive or thinking process is used for analysing data-deriving diagnosis, deciding on diagnosis and evaluating care. The application of information based on actual observation of a patient, combined with laboratory findings and the health care workers training and experience in determining a diagnosis. Mosby's Medical Dictionary for the Health Professions and Nursing (2012) highlights the ability to recognise the relationship of ideas and to form correct conclusions from those data as well as from experience.

Reviewing the sourced literature enabled the determination of the defining attributes of clinical judgement and according to Walker and Avant (2011:160) the heart of concept analysis. The most often cited author related to clinical judgement, Christine Tanner (2006), indicate a flexible and nuanced ability to recognise salient aspects of an undefined clinical situation, interpret their meanings and using pathophysiological and diagnostically aspects of a patient's clinical presentation of disease and illness experience (Tanner, 2006b:204). Tanner (2006b:208) further indicated the four dimensions of clinical judgement, namely noticing, interpreting, responding and reflecting. The level of ability a nurse uses to engage in effective noticing varies with the context, the nurse's background and the nurse's relationship with the patient. Clinical reasoning and clinical judgement are reciprocal and clinical reasoning informs judgement, which informs reasoning while critical thinking is foundational to both. The use of the intellect is also confirmed by Le Grant Robbert, as cited in Phaneuf (2008:1). Tanner further describes clinical judgement as an interpretation or conclusion about a patient's needs, concerns or health problems and/or the decision to take action (or not), use or modify standard approaches as a flexible and distinct ability to recognise salient aspects of an undefined clinical situation, to interpret their meanings, and respond appropriately (Tanner, 2006b:204). Nissen (1884:132) highlights the moral dimension as the nurse must seek to place herself in the patient's place. The characteristics (attributes) most commonly associated with the concept of clinical judgement is tabled (see Table 8), as step 4 of the analysis process and indicated below (Walker & Avant, 2011:162-163).

Table 8: The characteristics (attributes) most commonly associated with the concept of clinical judgement

Characteristics (attributes) of the concept of clinical judgement	Quantification of characteristics according to use	Defining characteristics of clinical judgement clustered according to synonyms	Units of meaning	Defining characteristics of clinical judgement as used for theoretical definition
1. Informed opinion	1, 3, 7, 14, 15, 20, 21, 24, 34	<ul style="list-style-type: none"> informed decision making/ informed opinion/ enlightened opinion/ clear opinion / come to a conclusion/ outcome/ decision/ inference/ differential nursing diagnosis, choice between alternatives 	ANTECEDENTS	<ul style="list-style-type: none"> informed opinion clinical context clinical experience conclusion undefined context
2. Actual patient observation/ subjective and outcome data	1, 7, 14, 20,23, 24, 25, 29, 31	<ul style="list-style-type: none"> data gathering/ observing/assessment/ noticing/recognise 		<ul style="list-style-type: none"> patient assessment actual patient observation interpretation of meaning
3. Nuanced/ distinct ability	2, 19	<ul style="list-style-type: none"> contextual/ undefined clinical situation/ manage uncertainty/ undefined clinical situation 		<ul style="list-style-type: none"> empirical knowledge reasoning across time
4. Recognise salient aspects within the context	2, 9, 16, 17, 19, 20, 24, 28, 31, 33	<ul style="list-style-type: none"> reasoning over time/ future thinking/ predictions of future behaviour 		<ul style="list-style-type: none"> identify and evaluation of alternative options critical thinking

Characteristics (attributes) of the concept of clinical judgement	Quantification of characteristics according to use	Defining characteristics of clinical judgement clustered according to synonyms	Units of meaning	Defining characteristics of clinical judgement as used for theoretical definition
5. Reasoning across time	3, 4, 7, 8, 20,28, 34	<ul style="list-style-type: none"> empirical knowledge/ text book information discipline-specific knowledge 		<ul style="list-style-type: none"> reflective thinking (in action) recognition of salient aspects
6. Managing uncertainty	2, 15, 19, 20, 22, 26	<ul style="list-style-type: none"> interpretation of meaning/ recognising patterns/ problem recognition/ interpretation of health problems 	CONSEQUENCES	<ul style="list-style-type: none"> intuition
7. Empirical knowledge	2, 7, 13, 15, 20	<ul style="list-style-type: none"> cognitive processes: analysis/ critical thinking/ reflection /intuition 		<ul style="list-style-type: none"> nurses' beliefs reflective thinking (on action, beyond)
8. Interpretation of meanings	2, 4, 9, 11, 16, 20 23, 24, 28, 32	<ul style="list-style-type: none"> problem solving: appropriate nursing actions/ appropriate involved way/ concerned response 		<ul style="list-style-type: none"> appropriate response outcome problem solving
9. Nurses' background	5	<ul style="list-style-type: none"> clinical grasp 		<ul style="list-style-type: none"> decision-making (choose between alternatives)
10. Multi-layered problems	12	<ul style="list-style-type: none"> assessment of alternative meanings in health care setting 		

Characteristics (attributes) of the concept of clinical judgement	Quantification of characteristics according to use	Defining characteristics of clinical judgement clustered according to synonyms	Units of meaning	Defining characteristics of clinical judgement as used for theoretical definition
11. Outcome of reasoning	3	<ul style="list-style-type: none">nurses beliefs		
12. Contextual decision-making from critical thinking	11, 16, 19, 20,	<ul style="list-style-type: none">based on ethical and moral decision-making		
13. Come to a conclusion of critical thinking/ inference	3, 9, 14, 20, 21, 25, 28, 33, 32	<ul style="list-style-type: none">patient/ clinical		
14. Application of clinical knowledge	2, 6, 7, 13, 15, 19, 29, 31, 20	<ul style="list-style-type: none">Clinical knowledge/ clinical experience/ practice/ added skill/ proficient/ expertise performance/ intuitive response		
15. Assessment of the clinical situation/patient assessment/ clinical presentation of disease	1, 2, 19, 6, 21. 24, 27, 33, 34, 35			
16. Evidence based outcome	11, 15			
17. Reflection (in, on, beyond)	7, 14, 20, 36			
18. Prioritising of data	6			

Connotative (theoretical) definition of clinical judgement

The meaning of the concept of clinical judgement was synthesised from the characteristics of clinical judgement as tabled (see Table 8 for quantification of characteristics). The connotative (theoretical) definition of the concept of clinical judgement in this study is based on the information gained from the process of Walker and Avant (2011:162-163) and defined as follows:

‘Clinical judgement is the conclusion at which a nurse arrives through the ability to recognise salient pieces of information gathered by direct observation and patient assessment within an undefined clinical context. Interpretation of meaning is followed by a period of reflection and reasoning over time to come to a clinical grasp/informed opinion of the situation. Appropriate response to the identified salient aspects is based on empirical knowledge, shaped by the nurse’s clinical experience, intuition and ethical-moral beliefs to solve the patient’s nursing care problems as outcome.’

Identify a model case

A model case using a nursing example was constructed to demonstrate all the defining characteristics of clinical judgement, in order to provide insight into the internal structure of the concept and allow clarification of its meaning and context (Walker & Avant, 2011:163) as follows:

Susan, a senior nurse, works in the surgical ICU and has ten years of clinical experience. she has just received the progress report from the night shift regarding Mr. Beukes. She was briefed about his health history, with a diagnosis of cancer of the larynx and that he had radical neck dissection surgery the day before. Mr. Beukes has a tracheotomy in situ and requires frequent suctioning for excessive secretions. He is alert and responds by nodding his head. When Susan enters the room to change the infuse pump and administer

the antibiotics, she gathers salient pieces of information by observing, listening and attending to what is happening. Susan comes to an informed opinion of Mr. Beukes and sees that he needs a nurse and nursing care, is apprehensive and tachypneic and has a gesturing response for her to come into the room. Susan's clinical constructions vary with the events that unfold as she senses the situation and responds sensitively as shaped by her ethical-moral beliefs to the changing circumstances as she is in the role of comforter. Susan uses reflection in action while systematically assessing his multi-layered problems by auscultating the lungs and observing salient data of coarse crackles and expiratory wheeze's. Thick secretions are bubbling out of his tracheotomy, with a poor cough effort. She discovered this when looking for a pattern of behavior by connecting seemingly unrelated pieces of information. On the basis of these salient data, she reasons across time and engages through use of reflection on action in all these activities by drawing a valid conclusion of ineffective airway clearance as nursing diagnosis. As Susan collaborates with the patient she explains to Mr. Beukes and his wife that the accumulated secretions impair the airway which is leading to the difficulty in breathing and tracheal suctioning. Suctioning will be the treatment of choice to improve his breathing. Mrs. Beukes enters into dialogue with Susan and asks if she is going to inject water into the tube during the procedure. Susan recalls clinical knowledge and replies that the use of saline is not according to best practice guidelines due to the high risk of fluid accumulation in the lungs, choking, and infection as complications. Mrs. Beukes responds with relief and gains trust during Susan's demonstration of competence. During the procedure Susan observes the patient's non-verbal pattern of response and notes that he is less apprehensive on completion of the suctioning. By reflection on action she auscultates the lungs and notes decreased crackles and expiratory wheeses but senses a rapid irregular pulse rate as well as severe peripheral cyanosis. As she has experience of similar situations, she realises the limitations of her experience and responds to the uncertainty of the situation. Susan rings the bell for assistance, while giving three direct ambubag inhalations, followed by given 100% oxygen by polymask to increases his saturation. A few minutes later Mr. Beukes smiles and indicates that his breathing has improved.

Justification of the characteristics (attributes) of clinical judgement as a process in the model case is set out as indicated in Table 9.

Table 9: Justification of the characteristics (attributes) of clinical judgement as a process in the model case

Clinical judgement process	Reference to the model case (line number)
Clinical context	1,3,4,5,6,7,9,14,15,19,20,21,22,23,24,25,28,29, 30, 33,34,35
Reasoning across time	7,8,9,10,11,13,14,15,16,17,18,19,20,21,22,24, 25, 27,28,29,30,31,32,33,34,35
Patient assessment	2,3,4,5,6,7,8,9,10,13,14,15,19,27,28,29, 30,34
Actual observation	7,9,14,15,16,27,28,29,30,34
Identification and evaluation of alternative options	7,8,10,11,12,13,14,16,17,25,32,33,34
Informed opinion	3,4,5,6,7,8,9,10,13,14,15,18,19,20,21,22,24,25, 27, 31,32
Inference/ conclusion	9,19,25,28,32
Clinical knowledge/ experience	1,3,4,5,6,7,8,9,10,11,13,14,15,16,17,18,19,20, 21, 22,24,25,27,28,29,30,31,32,33,34,35
Empirical knowledge	3,4,5,6,7,8,9,10,11,13,14,15,16,17,18,19,20,21, 22, 24,25,27,28,29,30,31,32,33,34,35
Undefined context/ manage uncertainty	3,4,5,6,7,9,10,14,15,16, 17,18,19,21,22,23,25, 28,29,30,32,33,34
Interpretation of meaning	3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20, 21, 24,25,26,27,28,29,30,31,32,33,34,35
Associated nursing action/ appropriate response	6,7,8,9,10,11,13,14,15,16,17,18,19,20,21,22,24, 25,27,28,29,31,32,33,34,35
Reflection	7,8,9,10,13,14,15,16,17,18,19,20,24,25,27,28, 30, 31,32,33
Recognition of salient aspects	8,9,10,14,15,16,19,23,24,25,27,28,29,30,31,34

Identifying additional cases:

In this study, use was made of a borderline case and a contrary case. Identification of these two cases allowed the researcher to distinguish between concepts that were similar to and contrary to clinical judgement (Walker & Avant, 2011:164). The borderline case of **clinical decision-making** was chosen, as judgements and decisions are closely related, and both elements are claimed throughout the literature to contribute to the appropriateness of nurses' eventual actions. Although there are similarities to clinical judgement as an attribute of decision-making in many ways, there are characteristics that differ significantly between the two concepts (Thompson & Dowding, 2009:5; Thomas *et al.*, 1991, as cited in Smith, Higgs and Ellis, 2006:89). Clinical decision-making and clinical judgement are both identified as interrelated cognitive thought processes. A study by Scott *et al.* (1999:10) has highlighted the contribution of skilled nursing care to patient outcomes. One of the factors that mark out exceptional nurses is their skill in judgement and decision-making.

Decision-making is similar to clinical judgement in that it shares the following characteristics: contact with patients, clinical experience, clinical context, clinical engagement, clinical reasoning, clinical grasp, contextual decision-making and associated nursing action. Although clinical judgement is an attribute of decision-making and decision-making a consequence of clinical judgement, both elements contribute to the appropriateness of the nurse's eventual actions and nursing care outcomes. Furthermore, a nurse might make an accurate judgement based on information but then go on to choose inappropriate action or decision. Alternatively a nurse might make a poor judgement and go on to make a good decision on the basis of the poor judgement made. Clinical decision-making as the borderline case will be defined as follows:

Clinical decision-making is comprehensively defined as:

Making clear choices which produce an outcome – as an action to do or not to do between limited options in dynamic contexts/situations of change and uncertainty using a diverse knowledge base (body of evidence-based literature) a grouping of reasoning techniques accompanied by experience with multiple variables and individuals involved. Decisions are embedded in a decision – action cycle, cover elements of time pressure, individual stress in a

process of collaboration involving collective and parallel decision-making with individual patients, family and the multidisciplinary health team, within the organisational goals and norms of professional nursing practice (Dowie (1993) as cited in Thompson and Dowding (2009:3); Thomas *et al.* (1991) as cited in Smith *et al.*, 2006:89; Edwards *et al.* (2004) and Patel *et al.* (1996) as cited in Smith *et al.*, 2006:89, 90). The characteristics of this comprehensive definition were used in the borderline case as follows:

Jane a nurse is working as professional nurse in a surgical ward for 10 years now and responsible for post-operative care to individual patients. Mr Brook is on his first postoperative day and according to the hospital post-operative care protocol needs to ambulate as to improve vascular circulation. Jane is the nurse who is responsible for getting him out of bed for the first time postoperatively. Jane consults the patient as he is still in much pain and moves cautiously. Jane knows from studying post-op recovery that patients' are at risk for fainting when they first get out of bed after surgery. While Jane prepares to get Mr Brook out of bed he experiences that his heart is beating faster and has a sensation of his abdominal muscles that gets more taut than usual. Jane notices as Mr Brook sits at the edge of the bed, that he turns ashen and complains of feeling lightheaded and dizzy. Jane believes that Mr Brook is going to faint as she reflects to the physiology of the autonomic nervous system's response to a sudden change in position that results in a dramatic drop of blood pressure accompanied by peripheral vasoconstriction as well as to previous clinical experience where she developed the systematic and methodological skills. Jane senses that the patient is going to faint intuitively about, before having time to analyse what is going to happen. Jane has a clinical grasp of the situation, moves forward and closer to the patient to prevent him from falling, using her clinical judgement and clinical decision-making skills. Jane rings the bell for additional help and with her arm firmly around the patient's neck and back, she gets the patient to lie back onto the pillows before he actually faints. She applies a cool compress to the back of the patient's neck. With assistance she places the patient in a supine position with elevation of the foot of the bed so that the feet and legs are higher than the head to promote circulation, while carefully watching and noting how the patient is responding to her nursing interventions. Jane applies oxygen by mask as Mr Brook appears cyanotic. After a while the patient responded well and the health team decides to keep him on bedrest for another day.

Justification of the characteristics (attributes) of clinical of clinical decision-making as borderline case as a process is set out in Table 10.

Table 10: Justification of the characteristics (attributes) of clinical decision-making

Characteristics (attributes) of clinical decision-making	Reference to the borderline case (line number)
Making defined choices between limited alternatives or options	4,5,6,10,12, 15, 17,19,20, 21,22,23, 24, 25,26
An action to do or not to do	5,6,7,10,11,12, 15,16,17,18,19,20, 21, 22,23,24,26
Produce outcome for patients	5,10,17,18,19, 20,21,22,23,24,25,26
Dynamic contexts/situations	1,2,3,4,5,6,7,8,9,10,11,12,13,14,16,18, 19,20,21, 22,23,24
Using a diverse knowledge base (body of evidence-based literature)	4,5,6,7,10,12,13,14, 17,18,19,20,21,22, 23,24,25,26
A combination of reasoning techniques - reflection, intuition	5,6,7,10,11,12,14,15,16,17,18,19,20,21, 22,23,24,25,26
Accompanied by experience	5,6,7,10,11,12,13,14,15,16,17,18,19,20, 21,22,23,24,25,26
Multiple variables	4,5,6,7,8,9,10,11,12,13,14,17,18,19,20, 21,22,23,24,25,26
Individuals/ patients involved.	1,2,4,5,6,7,8,9,10,11,14,15,16,17,18,19, 20,21,22,24,25,26
A decision-action cycle change and uncertainty/ situations evolve and decision and actions influence each other	4,5,10,17,21, 22,23,24,25,26
Best course of action	10,11,12,14,17,18,19,20,21,22,23,24,25, 26
Collaborative process	5,6,20,21,22,23,24,25,26
Involving shared and parallel decision- making	5,6,11,16,17,18,19,21,22,23,24,25,26
Multidisciplinary health team	19,21,26
Organisational goals and norms of professional nursing practice	3,26

The contrary case- judgement error, as opposite of clinical judgement will be discussed as follows:

Contrary Case: Judgement error

A contrary case aims to give an example of what the concept of clinical judgement is not (Walker & Avant, 2011:166). In this study, the concept, **judgement error**, was described as the opposite extreme or example of what clinical judgement is not. Although no formal definition of poor clinical judgement/inaccurate judgement or judgement error was identified in the literature review, aspects as discussed by Sari *et al.* (2007: 436); Thompson and Dowding (2009: 93-96), explained errors and mistakes as any unintended event caused by the healthcare provider that either did or could have led to patient harm (Sari *et al.*, 2007: 436) as a result of such incidents which are known as adverse events or patient safety incidents.

Therefore judgement mistakes happen when our reasoning goes awry and our intended actions do not proceed as planned and fail to achieve our immediate goals or intended outcome and when these failures cannot be attributed to the intervention of some change agency (Reason, 1990 as cited in Thompson & Dowding (2009: 93-96). Failures can be due to an error of omission – (absence of knowledge for accurate assessment) and/or error of commission – (the knowledge was there, but not used correctly). The characteristics of this comprehensive definition were used in the contrary case as:

As a nurse you are assisting Mr Broom, a 68 year-old man with chronic obstructive airway disease (COPD), to bed bath for personal hygiene. You notice while assisting with the wash that the patient appears cyanotic and is gasping for air and you decide to give him some oxygen at 35%. In your experience, oxygen helps with breathlessness and so you consider this to be a sensible action. You reflect in action and remember that previously people you cared for responded well on oxygen therapy. After 15 minutes you peep in at the patient and notice that he is breathing more rapidly. You respond with ignorance to the patient's request to help him to relieve his breathlessness. You adjust the oxygen to 65% and change the nose cannula to a polymask. After 30 minutes you visit the patient again and observe that he is breathing rapidly and his oxygen saturation has dropped rather than improving. As you are an experienced nurse, you didn't apply logic

and did not realise that, in healthy people, the respiratory drive is largely initiated by PCO₂ but that in COPD, hypoxia on its own is a driving force for breathing and if hypoxia is corrected the expiratory drive will be reduced. Two hours later Mr Brook was transferred to the ICU as he needed respiratory assistance.

Justification of the characteristics (attributes) of judgement error, poor judgement or clinical judgement mistakes as a process in the contrary case is set out in Table 11 as follows:

Table 11: Justification of the characteristics (attributes) of judgement error, poor judgement or clinical judgement mistakes in the contrary case

Characteristics (attributes) of poor clinical judgement/clinical judgement mistakes	Reference to the contrary case (line number)
Unintended event and health care that led to patient harm or safety incidents	4,5,6,7,8,9,10,11,12,13,14
Failures in the judgemental processes	4,3,6,7,8,9,10,11,12,13,14
Failures in the inferential processes/ incorrect use of knowledge	4,5,6,7,8,9,10,11,12,13
Intended actions do not proceed as planned	4,7,8,9,10
Knowledge for accurate assessment is missing	4,5,6,7,8,9,12,13
Failures in the reasoning processes	4,5,6,7,8,9,10,11,12,13
Failure to achieve goals or outcome	7, 10,13, 15

An example of a contrary case as discussed indicate how the situation was attended to be a mistake in the nurse's reasoning ability as knowledge and critical thinking for accurate assessment was missing and as knowledge was not used correctly during the application of oxygen for the patient with hypoxia and chronic obstructive pulmonary disease (COPD). The nurse's intended actions didn't proceed as planned and failed to achieve the outcome, with the result that respiratory drive was reduced and hypoxia developed as an adverse event resulting in patient harm.

CONCLUSION AND RECOMMENDATIONS

The objective of this study was to explore and describe clinical judgement as a concept and aim to promote a common understanding by clearly explicating and clarifying the meaning. To realise this objective, a concept analysis was performed using the method of Walker and Avant (2011), based on the original method of Wilson (1963).

The relevance of this study is evidenced by the fact that it is the first South African study to synthesise a connotative (theoretical) definition of clinical judgement, specific to the clinical nursing environment. Findings demonstrate the uses and importance of clinical judgement as a cognitive skill in the clinical nursing environment. This concept analysis contributes further as it will yield a better understanding of the concept in nursing practice and theory and can thereby improve autonomous and accountable nursing care as clinical judgment is an essential component of clinical/professional competence and moral development. These findings will assist nurse leaders and clinical nurse educators in developing a teaching-learning strategy for supporting undergraduate nursing students to develop and implement clinical judgement skill contributing to the quality of health care in South Africa (Furguson, 2006:2; Walker & Avant, 2011:161)., 2006:2; Walker & Avant, 2011:161).

Discussion of the study results

The purpose of this analysis was to define the concept of 'clinical judgement' through literature retrieval from key disciplines. The meaning of clinical judgement was clarified through using the eight steps of Walker and Avant (2011). Antecedents and consequences of clinical judgement were indicated as: *antecedents*: informed opinion; clinical context, clinical experience, conclusion, undefined context, patient assessment, actual patient observation, interpretation of meaning, empirical knowledge, reasoning across time, identification and evaluation of alternative options, critical thinking, reflective thinking (reflection in action), recognition of salient aspects, intuition and nurses' beliefs. The *consequences* were: reflective thinking (reflection on action and reflection beyond); appropriate response; outcome; problem solving; decision-making (choosing between alternatives).

Theoretical definition of clinical judgement

It is difficult to establish a unanimous definition for clinical judgement, a concept which is critical to the nursing profession as a result of its outcomes. Many authors have come up with thoughtful definitions as indicated, but as clinical judgement is very complex due to the prior training required and experienced nurses need to develop understanding of the subject. Therefore simplicity is required to grasp this concept. The identified attributes as supported by literature have quite significant similarity with the clinical judgement models of Phaneuf's formulated clinical judgement process and Tanner's research-based model of clinical judgement in nursing (Phaneuf, 2008:1; Tanner, 2006b:204-2011).

The following discussion accentuates the importance of the identified characteristics of the theoretical definition as formulated from this research and will be demonstrated through their resemblance to the characteristics of clinical judgement as defined by theorists Phaneuf (2008) and Tanner (2006b).

Observation, assessment, salient pieces of information:

According to Phaneuf (2008:1-2) clinical judgement depends on the nurse's ability to observe and to identify relevant information. Tanner's (2006b) four-phase model illustrates noticing, which involves focused observation, information seeking and recognising deviations from expected patterns and this research study indicates 'recognise salient pieces of information gathered by observation and assessment'.

Explanation of meaning:

Observation/ assessment and **noticing** as referred to include a variety of outcomes and subjective data to uncover full/**important information** regarding the patient and his/her circumstances (Benner *et al.*, 2009:387; Frith & Clark, 2013:112; Gotlieb, 2013: 205; Higgs *et al.*, 2008:27; Lasater, 2007:497; Standing, 2008:13).

Interpretation, reasoning, prioritising of data, identifying of patterns, clinical grasp /informed opinion

Phaneuf (2008) accentuates reasoning as a tool to associate pieces of information and to review them to establish relationships with known facts to analyse through the use of critical thinking and interpret the data at hand. The second concept in Tanner's (2006b) model illustrates interpretation, which involves prioritising of data, making sense of data by the identification of patterns through different reasoning patterns as analytic, intuition and narrative reasoning. From this study the characteristics of interpretation of meaning, a period of reflection, and reasoning across time to come to a clinical grasp /informed opinion of the situation was identified.

Explanation of meaning:

Prioritising data: focus on the most relevant and important data useful to explain the patient's condition. **Interpretation:** making sense of data. Reasoning is the cognitive process of using critical thinking to do interpretation. **Identifying of patterns:** looking for patterns in the patient's data and compares with known patterns from knowledge, intuition and experience. **Clinical grasp/informed opinion:** Through experience to combine salient pattern recognition and trigger an established response through developing knowledge and repeated exposure. It includes problem recognition and clinical judgement over time (Alfaro-LeFevre, 2012:7-12; 70; Bandman & Bandman, 1988:85-86; Benner *et al.*, 2009:16,387; Ebright *et al.*, 2003 as cited in Frith & Clark, 2013:113; Facione & Facione, 2008: 3-4; Higgs *et al.*, 2008: 5, 7; Lasater, 2007:497; Masters, 2005: 85, 91, 92; Simmons, 2010:1155; Teekman, 2000. 1127-1128).

Response and reflection

Explanation of meaning:

Appropriate response is indicated by Tanner (2006b:205) to be a concept of importance and from this study which indicates interventions tailored for the individual patient, monitors the patient's progress closely and adjusts treatment as indicated by the patient's response.

Reflection involves reflection-in-action during interpretation of data and reflection-on-action about the appropriateness of the course of action (Cotton, 2001; Higgs *et al.*, 2008: 6; Lasater, 2007: 497; Masters, 2005: 94; Schön 1987, as cited in Frith & Clarke, 2013: 112, 113; Standing, 2011a, 106,122).

Context of uncertainty, practical experience, theoretical knowledge, intuitive knowledge, ethical perspectives and relationship with the patient

According to the mentioned clinical judgement models of Tanner (2006b) and Panneuf (2008) the nurse's perception of any situation is shaped by the context of uncertainty, practical experience and rooted in the nurse's theoretical knowledge, intuitive knowledge, ethical perspectives and relationship with the patient.

Explanation of meaning:

Practical experience refers to knowledge gained from previous clinical situations; **context of uncertainty** includes the continuously changing clinical (patient) situation; **intuitive knowledge** refers to the sense of immediate knowing of outcome patient data, and defined as a clinical grasp of ambiguous patterns of patient data (Benner *et al.*, 1999 as cited in Minick & Harvey, 2003:292; Erickson *et al.* 2007:62); **theoretical knowledge** is knowledge based on evidence (Alfaro-LeFevre, 2012:10, 54,75,96; Benner *et al.*, 1992: 20; Benner *et al.*, 2009:16,387; Dewey, 1987:100; Facione & Facione, 2008: 2-4; Hammond, 1996a:86; Hammond,1996b; Higgs *et al.*, 2008: 9,12, 140; Lasater, 2007:497; Le Grant Robbert, as cited in Phaneuf, 2008:1) Masters, 2005:117; Melnyk & Fineout-Overholt, 2005: 170-177and Nojima, 2003:9).

Critical thinking for nurses is therefore defined by authors, Bitter and Tobin (1998:269) and Scheffer and Reubenfeld (2000:357) as being influenced by knowledge and experience, using strategies such as reflective thinking to holistically synthesise patient information in the nursing practice and is thus an essential component of professional accountability and quality nursing care. Critical thinkers in nursing exhibit the habits of the mind as confidence, contextual perspective, creativity, flexibility, inquisitiveness, intuition and reflection during

use of cognitive skills of analysing, reasoning, predicting, information seeking and transformation of knowledge.

Unexpected results

An important finding was that none of the literature reviewed for this study, mentions the aspect of nurse practitioner relationship and engagement with his/her patient and the clinical context. Only nurses' beliefs were identified as attribute. This relationship with the patient, as mentioned by Phaneuf (2008:5, 9) and Tanner (2006a:100) is of the outmost importance for engagement with the patient and his family which will allow observation and assessment. Effective clinical judgement thus rests on engaging with the patient and the knowledge of his pattern of responses. It can therefore be listed as a shortcoming of the theoretical definition formulated in this research (Alfaro-LeFevre, 2012:130; Gotlieb, 2013:37, 205; Higgs, Jones, Loftus & Christen, 2008:12; Masters, 2005:70, 64, 65 and Tanner, 2006b:206).

In this section the study limitations are described, recommendations are made for practice, education and further research and a summary of the research study are found.

Limitations of the research study

- Due to the limitation of space, the literature review was conducted on studies done between 1980 and 2013 and only 34 definitions (50 characteristics) were selected which could be limiting and more uses could add richness to the identified attributes and the theoretical definition
- The limited availability of recent sources on the topic
- Use of the internet Wikipedia encyclopaedic resource may be seen as a limitation, but the fact that it validated and further enriched the identified characteristics of clinical judgement, justified its inclusion in the concept analysis process
- A further finding was that none of the uses/definitions of clinical judgement reviewed for this study, mention the aspect of nurse practitioner relationship and engagement with his/her patient and the clinical context. This relationship for engagement is of the outmost

importance to be able to observe and assess the patient. It can therefore be listed as a shortcoming of the theoretical definition formulated from this research.

Implications for practice, education and research

Nursing practice

In-service education should be established in all clinical nursing environments and in every health care institution. The increased knowledge on clinical judgement and its characteristics should enable nurse practitioners to apply clinical judgement as a problem solving skill that improves patient care and service delivery.

Nursing education research

The findings of this study can be used to educate nursing students on the cyclical cognitive thought process which includes clinical reasoning, critical thinking, problem solving and clinical decision-making.

Research on teaching-learning strategies for educational preparation of undergraduate nursing students in the cognitive shortcuts and thinking strategies that expert nurses use, to promote the use of clinical judgement, are areas for future research.

CONCLUSION

Clarifying the concept of clinical judgement within the clinical nursing environment is not easy, because of the multiple facets of the concept within the clinical nursing environment. The method of concept analysis offers a substantial contribution to continuing productive activity in this regard. Through further triangulation of data nursing education may be able to develop a strong conceptual foundation to enhance efforts towards the continuing development of knowledge in nursing and the achievement of its goals.

The concept of clinical judgement is a very important skill in the clinical decision-making process and can improve nursing care delivery in South Africa. With this article the author's provides an overview of the concept of clinical judgement by promoting an understanding

thereof, which will enable nurse educators to develop a teaching-learning strategy to provide nursing students with the skills to practice effectively and thereby improving autonomous and accountable nursing care.

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MANUSCRIPT TWO

PROFESIONAL NURSES' UNDERSTANDING OF CLINICAL JUDGEMENT: A CONTEXTUAL INQUIRY

Submitted to "Health SA Gesondheid"

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About 20 pages text only (maximum), excluding tables, figures and the list of references.

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Title: Informative but concise, In small capital letters, centered and in bold, font size 14, eg.: Names of questionnaires, countries, and or authors start with capital letters.

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The manuscript contains five sections, namely the introduction, research design, results, discussion and the references. All these first-level headings (except ‘introduction’) appear in bold capital letters and are centered.

INTRODUCTION:

The introductory section normally contains the following eight elements; headings are indicated in [brackets]:

- (1) [**Key focus of the study**] A thought-provoking introductory statement on the broad theme or topic of the research (why should I even bother to read further?);
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A synthesis and critical evaluation of the literature (not a compilation of citations and references) should at least include or address the following aspects:

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A brief description of the research approach followed in the study should be included. It should, for instance, explain from which qualitative tradition the study is and also motivate why this approach is specifically required.

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The qualitative sampling procedures used in the study, such as cueing, purposive sampling or snow-balling are described and motivated in this section.

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In this section the author(s) explain where the data was sourced and which data collection methods (e.g. semistructured or unstructured interviews, focus-groups) were applied. In some instances solicited documents are also used.

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In this case the author(s) explain which methods of data analyses were applied. Different data analyses techniques result in different variations of qualitative research.

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This section normally contains the following eight elements:

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- ☐ reaffirm the importance of the study by restating its main contributions;
- ☐ summarise the results in relation to each stated research outcome or research hypothesis;
- ☐ link the findings back to the literature and to the results reported by other researchers;
- ☐ provide explanations for unexpected results;
- ☐ provide the conclusion and recommendations (implications for practice);
- ☐ point out the possible limitations of the study; and
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Second and third-level headings may be used.

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PROFESSIONAL NURSES' UNDERSTANDING OF CLINICAL JUDGEMENT: A CONTEXTUAL INQUIRY

Full author details:

Anna C. van Graan

School of Nursing Science, North-West University (Potchefstroom Campus)

E-mail: Anneke.VanGraan@nwu.ac.za

Martha J.S. Williams

School of Nursing Science, North-West University (Potchefstroom Campus)

E-mail: Marthyna.Williams@nwu.ac.za

Magdalena P. Koen

School of Nursing Science, North-West University (Potchefstroom Campus)

E-mail: Daleen.Koen@nwu.ac.za

Corresponding author:

Mrs. Anna C. van Graan

School of Nursing Science,

North-West University (Potchefstroom Campus)

Private bag X6001

Potchefstroom, South Africa, 2520

Tel: 082 6869659

E-mail: Anneke.VanGraan@nwu.ac.za

AUTHORS' CONTRIBUTION

Mrs. Anna C. van Graan completed a doctoral thesis for the degree Philosophiae Doctor in Nursing (Health Science Education) at the Potchefstroom Campus of the North-West University. Prof. Daleen Koen acted as promoter and Dr. Marthyna Williams as co-promoter. The student is responsible for the whole process (initiation, proposal, planning and execution), while the promoter and co-promoter provided guidance, structure and feedback during the process until submission for examination and publication.

Summary:

Number of words: 7279 (without table)

Pages: 21

Tables: 1

Figures: 2

Notes: all tables and figures will be included in the text for the purpose of the thesis as this should improve the interpretation of the text. For publication purposes all tables and figures will be added as annexures after the reference list according to the prescribed guidelines.

The manuscript is submitted to Health SA Gesondheid and awaits exception for publication

ABSTRACT

Higher cognitive skills are essential competencies for nurses joining the technologically and increasingly complex health care environment to provide safe and effective nursing care. Educators and clinical facilitators have recognised that newly qualified nurses do not meet the expectations for entry level clinical judgement and are held accountable for finding adequate learning experiences as preparation for such practice demands. An explorative and descriptive qualitative design was followed in this study to reach an understanding of clinical judgement in the clinical nursing environment from the perspective of professional nurses. Eleven professional nurses (n=11) working at primary health care clinics, public and private hospitals participated voluntarily. Data was collected by means of the “World Café” method, incorporating a combination of techniques such as interviewing, discussions, drawings, narratives and reflection. The focus was on professional nurses’ knowledge of the meaning of clinical judgement and factors influencing the development of clinical judgement in the clinical environment. Qualitative thematic content analysis principles were applied during data analysis. The findings were integrated with the relevant literature to culminate in conclusions that should add to the knowledge base of clinical judgement as an essential skill for improving autonomous and accountable nursing care.

Key words: clinical nursing environment, cognitive reasoning skills, quality nursing care, nursing student

OPSOMMING

Hoër orde kognitiewe vaardighede is 'n noodsaaklike bevoegdheid wanneer verpleegkundiges by die tegnologiese en toenemend komplekse gesondheidsorgomgewing inskakel om veilige en doeltreffende verpleegsorg te lewer. Opvoeders en kliniese fasiliteerders erken dat pas gekwalifiseerde verpleegkundiges nie aan die verwagte intreevlak kliniese oordeel voldoen nie en word aanspreeklik gehou vir die voorsiening van voldoende leerervarings ter voorbereiding vir die eise van die kliniese omgewing. 'n Ondersoekende en beskrywende kwalitatiewe ontwerp is gevolg om die begrip van kliniese oordeel in die kliniese verpleegomgewing vanuit die perspektief van professionele verpleegkundiges te verken. Elf professionele verpleegkundiges (n=11) wat by primêre gesondheidsorgklinieke, openbare- en private hospitale werk, het vrywillig aan data-insameling deelgeneem. Die "World Café" metode wat 'n kombinasie van tegnieke naamlik onderhoudvoering, bespekings, tekeninge, stories en refleksie insluit, is gebruik. Die fokus van die data-insameling was die kennis van professionele verpleegkundiges rakende die betekenis van kliniese oordeel asook faktore wat die ontwikkeling van kliniese oordeel in 'n kliniese verpleegomgewing beïnvloed. Die beginsels eie aan kwalitatiewe tematiese inhoudsanalise is tydens data-analise toegepas. Die bevindinge is met toepaslike literatuur geïntegreer en kulmineer in gevolgtrekkings wat 'n bydrae behoort te lewer tot die kennisbasis van kliniese oordeel as noodsaaklike vaardigheid om outonome en aanspreeklike verpleegsorg te verbeter.

Sleutelwoorde: kliniese verpleegomgewing, kognitiewe redenasievaardighede, kwaliteit verpleegsorg, verpleegkundestudent

Introduction

People frequently get sick and everybody has experienced nursing care at some stage, and yet in the 21st century it is still difficult to describe and poorly understood. Some people associate nursing with the physical tasks concerned with keeping the sick person safe, comfortable, nourished and clean. Some see nursing as assisting the doctor by carrying out tasks associated with medical treatment. These descriptions are indeed part of nursing practice today. Sound research evidence demonstrates that skilled nursing care makes the difference (Royal College of Nursing, 2003:4). The paradox is that the more skilful a nurse is in what she does, the less likely the patient may be to recognize what has been done. This indicates that nursing care provided by professional nurses differs from that of non-professional care givers.

The distinction doesn't specifically lie in the type or level of skill performed, but in the clinical judgement inherent in the processes of assessment, diagnosis, prescription and evaluation; knowledge is the basis of the assessment of patient needs and determines the action to meet the need; professional accountability for decisions and actions, including the decision to delegate to colleagues and the structured relationship between the nurse and the patient, which incorporates the professional code of ethics and regulation within a statutory framework (RCN, 2003:4-6).

Focus and background of the study

Today's clinical nursing environment is more complex than ever before. As a rapidly advancing profession, nursing demands higher cognitive skills from nurses. Critical creative thinking and clinical judgement is viewed as essential skills for every health professional (Potgieter, 2012:4). Nighthingale (1860) firmly established observations and its interpretation as hallmarks for trained nursing practice (Lin, Hsu & Tasy, 2003:159). In recent years, clinical judgement in nursing has become synonymous with the nursing process model of practice viewed as a problem solving activity. The nursing process has dominated nursing education since the 1960's as theorists tried to link their theories with the clinical judgement process and to link nursing theory with clinical practice. Studies by Tanner (2006:205) and Higuchi and Donald (2002:146) indicate that teaching only one type of problem solving, such

as the nursing process, fails to adequately describe the process needed for nursing judgement and to account for the complexity of factors influencing clinical judgement.

The mentioned need for thinking skills in nursing has been accentuated in response to the constantly and rapidly changing health care environments. As the acuity of hospitalised patients and the prevalence of chronic illnesses increase, the length of hospital stay shortens. The increased patient-nurse ratios, limited clinical facilities and shortage of nurse educators are common factors that contribute to the above mentioned (Potgieter, 2012:4).

Recent literature indicates that most newly qualified nurses do not meet the expectations for entry level clinical judgement (Pongmarutai, 2010:1). Health care institutions expect professional nurses joining the workforce to be highly competent and prepared to function in a technologically sophisticated and increasingly complex health care arena. According to Hammond (1996:218) the changing demands of practice is characterised by uncertainty and despite this uncertainty, nurses still have to make clinical decisions and clinical judgements (ANMC, 2005). Simply following the process, analysing the data like a computer and performing prescribed techniques cannot guarantee good clinical judgement that will solve the patient's problems (Pongmarutai, 2010:1). Clinical judgement has been recognised as a vital skill that enables nurses to determine the appropriate nursing interventions when planning patient care, especially the ability to manage rapidly deteriorating patients (Lindsey & Jenkins, 2013:64). This has produced an atmosphere in which the nurse is required to make sound accurate clinical judgements that support the complex health care and patient's needs and that contribute to optimal patient outcomes (Clark, Owen & Tolken, 2004:550).

The remunerated community services year for newly qualified SA nurses, implemented in 2006 (SANC, 2005) led to the provision of comprehensive health care services. However, clinical educators and professional nurses have recognised that new graduates often lack the knowledge and ability to make sound clinical judgements (Tanner, 2006:207) as they have not been clinically or educationally fully prepared for the demand for health care and the greater accountability, which increases continuously (Department of Health, 2013; Geyer, Naude & Sithole, 2002:11; Simpson & Courtney, 2002: 91).

Nurse educators recognise the increased demand for competent nurses in the current health care environment, and find it increasingly challenging. They are held accountable to find

adequate clinical experiences to prepare students to meet the demand for the ever-changing and more acute clinical environment (Tanner 2006:206). Limited exposure to real life patients during the education and training period leads to limited clinical practice for role taking. The newly approved nursing curriculum scheduled for implementation at all SA nursing education institutions (NEI) from 2016, reduces the minimum exposure to clinical nursing practice from 4000 to 3000 clinical hours (Department of Health, 2011).

Tanner (2006:205) accentuates the inefficient use of time in clinical teaching as one of the problems of current clinical education models. Teacher-student time is consumed by performing routine tasks, checking preparation/doing assessments and to assure that students are safe in the clinical environment. Time for more meaningful interaction to discuss students' observation of the underlying pathophysiology is limited (Randall, Tate & Lougheed, 2007:61; Tanner, 2006:205). Students should be guided to understand patient needs, develop appropriate responses and adjust care plans on the basis of clinical reasoning and judgement. Nursing students should be able to go beyond the protocols, standards and formal rules to arrive at safe patient care that should not be entirely protocol driven (SmithBattle & Diekemper, 2001:403). Clinical decision making is facilitated when students have an opportunity to integrate scientific knowledge, experiences and clinical judgement in a specific situation (Benner, Tanner & Chesla, 2009). Such opportunities guide nursing students to a deeper understanding of the clinical situation and allow them to progress from reliance on abstract knowledge and context free formal rules for nursing care to deep knowledge. They then learn to rely on past personal experiences as basis for clinical decision making and notice unique aspects that reflect understanding of salience, as well as the influence of the clinical context (Benner 2001:210; Tanner 2006:206). Potgieter (2012:5) adds to the above that didactic lectures, memorisation and simulation of demonstrations may lead to mastery, but they do not stimulate the development of critical thinking skills and ethical values for care. Frith and Clark (2013:7), as well as Maskey (2008:12) accentuate the fact that a student's performance depends on the knowledge, skills and attitudes accumulated during their training and the student's ethics and value system can only be assessed on observable behaviours.

Chisari (2009:18) and SANC (2005) indicate that collaborative dialogue between students, educators and clinical mentors as role models during nurse-patient interaction is a powerful learning tool in facilitating clinical judgement. The mentioned action can help students to

move from dependence to self-direction (Bruce, Kloppe & Mellish, 2011:97, 365; Chan, 2004:665) within the clinical environment as ideal for active student learning (Quinn & Hughes, 2009:341). Nurses need to think critically, self-critique, synthesise information, link concepts and become self-directed, reflective, life-long learners (Facione, 2006:10; Potgieter, 2012:5). Nursing education curricula therefore have to change from a content focus to a concept based focus.

The importance and need for an increased attempt to facilitate clinical judgement is evident.

Problem statement

Clinical judgement is of utmost importance for delivering quality nursing care. The application of critical thinking and clinical judgement skills embedded in scientific knowledge currently seems to be insufficient in novice professional nurses, who need to deliver safe, comprehensive nursing care in diverse health care environments. The absence of research on clinical judgement within the South African nursing literature motivated the need for this study.

Central theoretical statement

This study explores the clarity on the meaning of the concept clinical judgement within the South African nursing environment in two phases. The first phase of this study comprised a concept analysis of the concept clinical judgement. This second phase explores clinical judgement from the perspective of professional nurses within a specific contextual, clinical nursing environment where undergraduate nursing students are placed for clinical experience. The following objectives guided this study:

Research aim and objectives

The overall aim of this study was to explore the concept clinical judgement within the South African nursing environment (Van Graan, Koen & Williams, 2014). The first phase of this study comprised a concept analysis of the concept clinical judgement. This manuscript focuses on phase two of the study, namely studying clinical judgement from the perspective of professional nurses within a specific, clinical nursing environment where undergraduate

nursing students are placed for clinical experience. The following objectives guided this study:

- To explore and describe the meaning, characteristics and process of clinical judgement;
- To explore and describe factors that influences the development of clinical judgement within the clinical nursing environment.

RESEARCH DESIGN

Research approach

An explorative, descriptive qualitative design was followed to gain an understanding of the participants' (professional nurses) perception of clinical judgement within the South African clinical nursing environment.

Research methods

Population, sampling and research setting

According to Bothma, Greeff, Mulaudzi and Wright (2010:200), the population of a research study includes all the elements that meet the inclusion criteria in the context of interest to the researcher, who tends to collect data from the field where the participants experience the problem under investigation (Creswell, 2009:175).

The *population* comprised of professional nurses who complied with the selection criteria working at eight primary health care clinics, three public and two private hospitals in the Matlosana and Tlokwe sub-districts of the Dr. Kenneth Kaunda district, North-West Province, where undergraduate nursing students are placed during practice for role taking.

A *purposive sampling* method was used in this qualitative research because the participants were selected to fit particular features of interest to the research study (Bothma *et al.*,

2010:201; Burns & Grove, 2009:344). Eleven professional nurses voluntarily took part in data collection (n=11).

The study sample complied with the following inclusion criteria:

- professional nurses, with
- at least 3 years clinical experience,
- working in the identified clinical environments,
- able to communicate in English or Afrikaans,
- are willing to voluntarily give written informed consent to participate in this research, and
- are prepared to have the data collection proceedings recorded on audiotape.

Data collection and recording methods

The “World Café” method was used to collect data from the participating professional nurses (The World Café, 2008). The method employs seven design principles namely setting the context, creating a hospitable space, exploring questions that matter, encouraging everyone’s participation, connecting diverse perspectives, listening together for patterns and insights and sharing collective discoveries (Du Plessis, Koen & Bester, 2012). The World Café method is a combination of qualitative data collection techniques, such as interviewing, discussion, drawings and narratives, and allows time for reflection (Du Plessis *et al.*, 2012). This method is a brainstorming tool to generate ideas and comments, a living network of conversations used for leading collaborative dialogue, sharing knowledge and creating possibilities for action (Brown, 2005:2). As qualitative data collection technique this method was appropriate and effective to collect a large quantity of rich data about clinical judgement as specific topic in this research within a short period of time.

How the World Café method method works

The room used for the data collection was set up as a café to ensure a relaxed atmosphere (see photo 1). Four (4) tables were arranged to accommodate participants from different clinical facilities with a table host, acting as facilitator, at each table. Each table was provided with paper, coloured pens and refreshments.

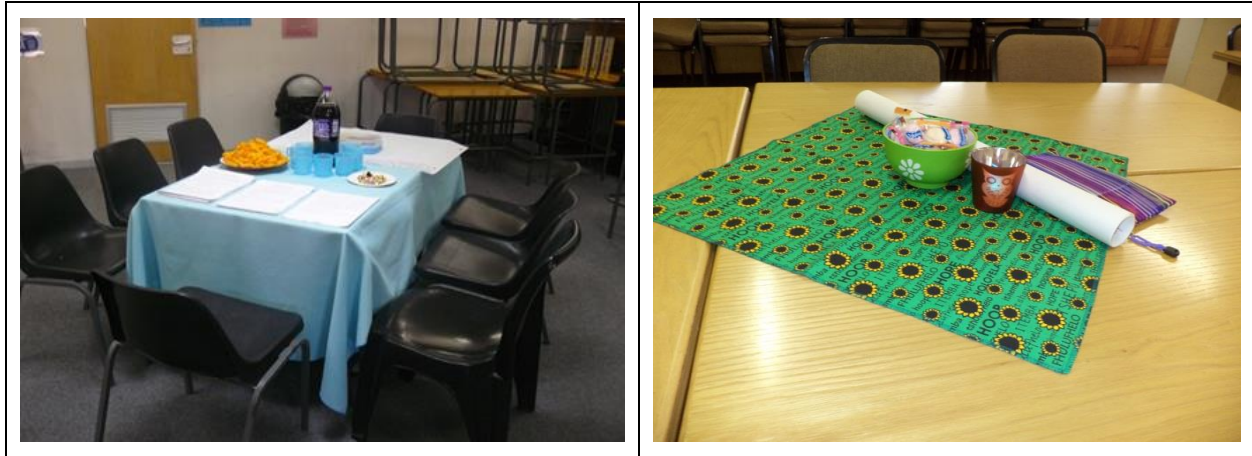


Photo 1: World Café data collection set-up (Froneman, 2013 and Du Plessis *et al.*, 2012)

At each table an experienced researcher acted as table host and facilitator. Participants were welcomed and a question was introduced for exploration and discussion. Questioning centred on the following phrases:

- Explore and describe the meaning, characteristics and process of clinical judgement; and
- Explore and describe factors that influence the development of clinical judgement within the clinical nursing environment.

Facilitation strategies were applied to stimulate discussion and achieve the set objectives. After 15 minutes the session was concluded and the participants moved to the next table. The facilitators took notes of what was said by the previous group and shared it with the new group for participants to relate to the ideas, add new ones and to prevent unnecessary repetition. The result is that each facilitator managed the exploration and discussion of a specific, predetermined question by all the participants. Data collection was concluded with a general discussion session during which the participants reflected on the process, uncertainties were clarified and findings were summarised on flip charts to serve as evidence and field notes to enrich the data.

The data collection process was voice recorded for transcription purposes and had a duration time of 3:30 hours. It included obtaining informed consent, focused discussions as data collection and concluded with the general discussion and feedback session.

Data analysis

The data set included facilitators' notes, drawings by participants and the transcribed audio data of the actual discussions. Qualitative, thematic content analysis principles as described by Henning *et al.* (2004:127-129) and Du Plessis *et al.* (2012:770) were applied. The principles of document analysis as described by Blakeman, Sameulson and McEvoy (2013:41) were useful during the analysis of the World Café data.

The process of data analysis:

The data set was independently analysed by the researcher (coder) and a second researcher experienced in the analysis of qualitative data as co-coder. The analysis process started with a broad scanning of the data sheets for a general sense of the overall theme of clinical judgement. The data sheets were scanned a second time to identify broad themes from the main phrases. Keeping the broad themes in mind, data sheets and drawings were separately scrutinised, grouping similar words/phrases and comparing phrases with each other and with headings on the sheets to identify sub-themes. The coders engaged with the data by means of in-depth reflection not only on words, but also the use of colour and sketches (see Photo 2). The identified sub-themes were constantly compared with each other and with the main theme, clinical judgement. Related sub-themes were grouped together into themes. Data saturation was reached within each sheet as it represented the views of a group. A draft framework of themes and sub-themes was established from the data set after 3 sheets. The remaining sheets and field notes were studied to enrich and refine the themes and sub-themes.

- The range and aim of the study was explained and participants were free to decide whether to participate or not;
- Written, voluntary informed consent were obtained from the participants;
- Participants could withdraw from the study at any time without reprisal if they so wished;

The right to privacy was respected because personal information was handled confidentially and no person and clinical facility was identified.

- Raw data was managed confidentially by the researcher and the co-coder; and
- Results will be published in aggregate format.
- There was no *discrimination* in terms of race, culture or social prejudice and participants were treated equally.
- Participants received no direct *benefit* from the study, although their contribution should benefit the nursing profession at large.
 - No reward was offered for participation;
 - The study posed no physical or psychological harm to participants.

The universal standards for Trustworthiness, Validity and Reliability are set out in Table 1 as follows:

Table 1: Universal Standards for Trustworthiness, Validity and Reliability (*adapted from Botes, 2003:178; Klopper and Knobloch, 2010:318):

Strategy	Criteria	Application in this study
Credibility (Truth value)	Prolonged engagement	Adequate time was spent with the participants to establish trust to facilitate comfort and safety to share opinions.
	Triangulation	<ul style="list-style-type: none"> • Multiple methods were used during data collection: discussions, drawings and summaries. • Multiple data sources were used: personal opinions of experienced professional nurses, extensive literature exploration, including journals, internet searches and books. • Multiple investigators: four experienced qualitative researchers acted as facilitators during data collection, data analysis by researcher and co-coder. • Multiple perspectives: data collected from professional nurses working in a variety of clinical environments (clinics, public and private hospitals).
	Reflectivity	Ensured through field notes and summary by participants themselves.
	Member checking	Participants clarified and validated their responses.
	Peer examination	Contact sessions with study leaders.
	Referential adequacy	The study's findings have been related to literature.

Strategy	Criteria	Application in this study
Transferability (Applicability of results to other contexts)	Thick description	Purpose of study is contextual in nature. The research process is auditable due to dense description.
Dependability (Consistency of results, trustworthiness)	Detailed description of research methods	The methodology was densely described. Participants were actively involved in the field of enquiry. Data analysis by two coders, consensus on final results.
	Code-recode procedure	Re-assessment and re-coding of data after a period of time, comparison of results.
	Peer examination	A methodology expert reviewed the study.
Confirmability (Findings reflect participants' views)	Neutrality	The researcher maintained a neutral position during research process. Dense description of process, thus auditable.

Literature exploration and integration

The first phase of the research by Van Graan, Koen and Williams (2014) comprised an extensive literature exploration to analyse the concept, clinical judgement in nursing. The second phase (focus of this manuscript) aimed to investigate professional nurses' understanding of clinical judgement and the factors that influences the development of clinical judgement within the clinical nursing environment. The qualitative nature of the study implies that the findings are related to and integrated with literature (Burns & Grove, 2009:12; De Vos, 2005:268) as executed under the heading Findings and Discussion.

FINDINGS AND DISCUSSIONS

The recorded data was transcribed, analysed and categorised into two (2) themes and associated sub-themes. These are described, supported by participants' responses and integrated with relevant literature to culminate in conclusions.

Theme 1: Meaning of the concept clinical judgement

The participants' responses regarding the meaning of clinical judgement were categorised into sub-themes according to the four dimensions of Tanner's Clinical Judgment Model (Tanner, 2006). This model was used as framework to explain the attributes for this study as follows:

Effective noticing

Tanner (2006; 208) describes *noticing as information gathering*, which involves *focused observation*, searching for evidence by identifying relevant sources of patient data and recognising deviations from expected patterns, rooted in the nurse's integrated knowledge, experience, ethical perspectives and relationship with the patient.

Clinical judgement in nursing has become synonymous with the nursing process model of practice, viewed as a problem solving activity. Literature (Chabeli, 2007:74; Ledesma-Delgado & Mendes 2009:329 and Rivas, Garcia, Arenas, Lagos & Lopez, 2012:18) describe the nursing process as the cognitive framework in which nurses use their critical and creative thinking skills to apply their nursing knowledge, attitudes and values systematically and logically to collect patient data, utilising both deductive and inductive reasoning to express patient care (Chabeli, 2007:74; Mann, 2012:27 and Turner, 2005:274). Assessment, as the first and crucial information collecting step of the nursing process (Chitty & Black, 2011:177-179; Masters, 2005:80), involves observation as data gathering method to evaluate the historical and current health status of the patient and planning of holistic, prioritised care (Gotlieb, 2013:15; Pelzang, 2010:912). This phase presents an opportunity for nurse-patient

interaction and shared decision making to establish a therapeutic relationship (Benner *et al.*, 2009:387; Gotlieb, 2013:205, 206; Higgs, Jones, Loftus & Christen, 2008:27).

The participants in this study described the characteristics of clinical judgement as:

'Love and passion for the work; ...integrity; ...work to my best ability; ...decision to pull through... do the best for the patient... to walk the extra mile for your patient; ...identify a problem; ...have to listen; ...assessment of what is going on and what there is to do or manage in another way; ...use your brain to do the observations; ...use your intellect ...stop to learn according the book; theory and practice needs to meet; ...experience ...excellent care comes with experience; this patient has expectations... holistic approach'.

The participants' identified some of the characteristics of clinical judgement, but evaluated against the quoted literature, the cornerstone concepts of noticing (critical thinking, reasoning and problem solving) were omitted. It seems as if the participants confused the personal characteristics of the nurse with clinical judgement as concept.

Effective interpretation

Effective interpretation involves prioritising the most relevant data through reasoning, useful for explaining the patient's condition and making sense of the data by developing plans for interventions that can successfully meet the patient needs (coming to a conclusion) (Tanner, 2006). Mann (2012:27) and Benner *et al.* (2008:89) view knowledge and experience as essential for interpretation and reasoning. Gerdeman, Lux and Jacko (2013:15, 16) support Tanner's view of prioritising but accentuate the patient's condition at a given time. The participants said:

'... I plan....then I implement; ...be able to anticipate what is going to happen... observe, re-assess, ...prioritising of needs'

Participants didn't identify the essential meaning of effective interpretation as identification of patterns and critical thinking and the reasoning necessary to make sense of the patient's data. They viewed prioritising of patient needs and to anticipate the outcome as part of effective interpretation.

Appropriate response

Tanner (2006:209) and Gerdeman *et al.* (2013:16) view effective responding as the process of intervening through confident and flexible decision making regarding nursing care. Lasater (2007:500, 501) and Tanner (2006:209) indicate it as interventions tailored for the individual patient, monitoring the patient's progress and adjusting treatment as indicated by the patient's response. Lasater (2007:500, 501) adds a demonstration of leadership, confidence and control over complex patient situations, delegation and direction of tasks, re-assessment and re-assurance of the patients and their families by use of effective communication.

The participants' perceptions are evident from the following quotations:

*'... training and practical **experience**; ... give your **solid ground**; ... you have to take charge of your patient; ... so you **plan, implement, observe**; ... **manage according to your judgement**; ... professional judgement is developing with **experience**; ... difficult to integrate theory with practice; **initiative**; ... **intuition**.... the 'gut feeling'; ... need to **look for that something extra**; ... the **patient** is the **most important**; ... use your **knowledge**; ... **your decisions have to prioritise the patient's needs** before other tasks; ... just two minutes you spend extra with the patient help to build a **positive patient relationship**, ... the patients' **cooperation**'.*

Participants view the patient him or herself and a positive relationship as important to gain the patient's cooperation in the delivering individualised nursing care. Experience and intuition plays an important role in the appropriate response. They don't relate leadership, confident planning and flexible decision making regarding nursing interventions to the appropriate response.

Effective reflection

According to Tanner (2006:209) effective reflecting involves self-assessment of clinical performances, evaluating nursing experience and identification of strengths and weaknesses with commitment to improvement.

Several other studies (Gerdeman *et al.*, 2013:16; Frith & Clarke, 2013:112, 113; Alfaro-LeFevre, 2012:18) support reflection as the movement of thought from existing to emerging

situations to gain a deeper understanding and therefore facilitate learning. Nielsen (2009:516) emphasise reflection as introspection regarding an experience. Literature identifies three types of reflection. Klopper (2009:28, 31) and Schön (1987:70) view reflection-in-action as an interactive sharing of experience and understanding (thinking while the action is taking place). Reflection-on-action refers to an evaluation of an experience (“cognitive post-mortem”), while reflection-with-action refers to interpersonal interaction to construct meaning. Klopper (2009:28) adds the making of inferences, generalisations, analogies, evaluations, problem-solving and discrimination as part of reflection. Critical thinking is therefore inherent to sound, clinical judgement.

Participants clarified their view by saying:

*‘You sit down and **dissect the situation**; .. can **learn from the situation**; ...after-event **debriefing**; ...**discover** how students experienced clinical learning; ... **feedback** help to **identify misunderstandings**; ...an **assessment what is going on** and what there is to do or manage in another way;... you as nurse will **make decisions** according to the patient;... decide to go on and always do the best for the patient;... you have to **make an opinion**; ...**respond** according the important issues;...**decide** by yourself **how to act**; **formulate outcomes** and **evaluate**..’*

Participants identified the patient and the prioritisation of his needs as the main focus. Decision- making is seen as patient-focused and not as an assessment of the strengths and weaknesses of interventions or the appropriateness of the treatment. Feedback refers to reflection as an evaluation of the situation and debriefing as an assessment of the students’ experience of the clinical learning. Professional nurses see the above as a learning opportunity and problem solving activity as clarifying misunderstandings.

Conclusion theme 1:

The participants verbalised a basic and simplistic understanding of the concept, clinical judgement in nursing. It seems as if clinical judgement is confused with good nursing care. The understanding of the relationship between a sound knowledge base, reasoning and critical thinking skills and its impact on effective interpretation and ultimately decision making, seems to be insufficient.

Theme 2: Factors influencing the development of clinical judgement

The nursing practice is facing a multitude of issues that can either contribute to a positive or dysfunctional learning environment for the facilitation of clinical judgement in undergraduate students. The following factors were identified as dysfunctional for the development of clinical judgement.

Clinical accompaniment of nursing students

The participants describe **clinical accompaniment of nursing students** as problematic, inefficient and not conducive to the development and demonstration of clinical judgement.

They said: ‘. *clinical and theory don’t come together; ... practice it is not always happening as learned; ...not enough [staff] to do clinical guidance; ...no guidance; ...no time to train the juniors; ...we don’t have the facts and knowledge to motivate’.*

Accompaniment is described as the conscious, purposeful guidance and support of students in the clinical environment in an effort to empower them. It leads to the development of knowledge, competence and professional growth into active, critical thinkers and reflective practitioners in search of meaning (Grossman, 2007:28; Haghdoost & Shakibi, 2006:311 Quinn & Hughes, 2009:359). Meaning is described by Klopper (2009:32) as making sense of experiences within an interpersonal context. An important aspect of accompaniment is *supervision*, an interpersonal process during which a skilled/experienced individual (professional nurse) assists, educates and supports a less experienced person (student) to achieve professional abilities (Carlson, Kotzé & Van Rooyen, 2003:36). At the same time nursing students employ their newly acquired skills to the needs of patients (Cohen, Jacobs, Quintessenza, Chai, Grossman, 2007:14; Lindberg, Dickey & Ungerleider, 2007:164; Van Rooyen, Laing & Kotzé, 2005:30). Quinn and Hughes (2009:341) accentuate learning that occurs in a real clinical setting as more meaningful than that acquired in the classroom. Nurse educators, clinical facilitators/preceptors and the professional nurses in the wards where students are placed during experiential learning should collaborate as role models to create an environment conducive to learning (Chisari, 2009:18). Students are exposed to learning opportunities (Jerlock, Falk & Serverinsson, 2003:219), engaging in a respectful relationship

grounded in ethical, personal and professional values (Beukes, Nolte & Arries, 2010:3; Gagliardi, Perrier, Webster & Leslie, Bell, Levinson, Rotstein, Tourangeau, Morrison, Silver & Straus, 2009:55; Straus, Chatur & Taylor, 2009:135). Nurse educators rely greatly on professional nurses working in facilities to ensure that nursing students obtain the necessary clinical skills (Kanno & Koeske, 2010:355; Moscaritolo, 2009:19; Pinnock, Sharif, Hawke, Henning & Jones, 2011:63). Bos, Alinaghizadeh, Saarikoski and Kaila (2011:1785); Marshburn, Engelke and Swanson (2009:426) and Frankel (2009:5) report that financial constraints, the constant shortage of staff, heavy workloads and resources left staff frustrated and depressed, leaving them with inefficient energy and time to attend to the learning needs of students, thus affecting the motivation and quality of the clinical learning environment for undergraduate students. These authors add that professional nurses in the wards lack a qualification in education and feel that they are not paid to teach students. The effectiveness of the clinical learning environment is restricted and dysfunctional due to the unavailability and inaccessibility of clinical staff (Bezuidenhout, 2003:16; Carlson *et al.*, 2003:33). Insufficient clinical accompaniment of nursing students further distorts and undermines the development of long-term ethical nursing skills and competencies, such as clinical judgement (Chan, 2004:665; Hartigan-Rogers, Cobbett, Amirault & Muise-Davis, 2014:4).

Think critically

A nurse must be able to **think critically** in order to make sound clinical judgements in planning, managing and evaluating the health care of patients (Yildirim, 2011:258). The guidance from an experienced and knowledgeable clinical accompanist is essential for fostering *critical thinking skills* and ultimately, clinical judgement.

Participants said: ‘...*give him an opportunity to think critical and make decisions; ...mastering of clinical skills and decision making has boost my confidence a lot; ...make decisions to better their ability to judge*’.

With critical thinking being one of the primary expected competencies (Del Bueno, 2005:278), nurse educators are charged with the responsibility of designing clinical learning experiences that develop critical thinking skills along with nursing knowledge to meet expectations (Maskey, 2008:12). Students learn best by using the knowledge as they acquire it (Frith & Clark, 2013:7). The blending of knowledge acquisition and knowledge use facilitates

students' understanding of practice and fosters clinical judgement. Students need to confront complex clinical situations that require them to think reflectively, link existing knowledge with the situation they are faced with to make sense under the guidance and support of clinical accompanists.

Yildirim (2011:258) describes the critical thinker as one who is habitually inquisitive, self-informed, trustful of reason, open-minded, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, focused in inquiry and persistent in decisions. According to Facione (2011) "the critical thinking process is reflective and reasonable thinking about nursing problems without a single solution and is focused on deciding what to believe and do." Critical thinking is a complex, multidimensional cognitive process and is not bounded by predefined standards and outcomes dependent on reflective thought. It includes knowledge, skills and attitudes incorporated in the nursing process (Facione & Facione, 2008:3-4). While the nursing process demands linear thinking as part of problem solving, critical thinking compels nurses to challenge assumptions, question the context, look for new ways of doing and thinking, reconsider, sift and evaluate ideas for their worth and practicality (Yıldırım, 2011:258). A learning environment conducive to critical thinking provides opportunities for flexibility, creativity, support for change and risk taking. Interactive dialogue facilitates the building of connections to open up ideas, creates a way for thoughts and reflections to be made public and enables the dissemination of insight. Facilitators should not provide students with answers. A questioning attitude should be encouraged for students to develop interpretive, analytical, evaluative, inferential and explanatory skills to come to clinical judgement (Yıldırım, 2011:258).

The first clinical experience

The participants proposed that the **first clinical experience** of novice nursing students should be positive and an example of what nursing entails and not to be questionable, or a non-conducive environment for learning, as seems to be the case in some facilities. Participants experience the large first year intake and non-enabling environments for learning as an impending factor for the effective utilisation of clinical experiences and opportunity to develop clinical judgement. They said in this regard:

*'... too many first years; ...learn about basic patient care;... go on according that example for the rest of your life; ...clinical person should **take student by hand**; ... student to take **ownership of learning**; ...students **need a safety net**; ...trust the environment, people as family; ...sisters can **support** continuously, ...be **approachable**; ...questions to **clarify**'.*

Clinical practice is a potentially stressful experience (Chan, 2004:665; Elliott, 2002:35); more so for a novice nurse. Levett-Jones, Lathlean, Higgins and McMillan (2008:318) accentuate an educator's role to ensure clinical placements in positive learning environments to promote the personal and professional development of nursing students. A positive relationship between the ward staff and the nursing students is the single most crucial factor in creating a positive learning environment (Chesser-Smyth, 2005:324). Support and supervision leave nursing students more confident with their role during facilitation of learning (Landmark *et al.*, 2003:836; Smith, Courtney, Finlayson & Chapman, 2004:251) and contribute to their experiences of the clinical learning environment (Clarke *et al.*, 2004:109; Vallant & Neville 2006:33; Zilembo & Monterosso, 2008:195). Ranse and Grealish (2007:173) view an unwelcoming environment as non-supportive and this contributes to students' fear of being overwhelmed by a lack of experience (Edwards, Smith *et al.*, 2004:250; Pearcey & Elliott, 2004:385). A high level of anxiety can therefore lead to decreased learning as students focus on their feelings of anxiety and being accepted rather than on learning. This fear of making mistakes is according to Cheung (2011:287) the highest anxiety producing situation for all levels of students. Lambert and Glacken (2005:668) and Chan (2002:520) highlight the benefit of having a ward-based clinical facilitator for continuous access to someone who can concentrate solely on clinical education and support of students and who can attempt to narrow the theory–practice gap.

Nursing students are used as workforce

Nursing students are used as workforce (non-supernumerary status) to fill the gap in understaffed units. Tasks are allocated to permanent staff and students, resulting in limited learning opportunities for students and less guidance by experienced colleagues. Participants explained that:

*‘... students are **supposed to be extra**, not part of workforce; ...not too bad, it is a **learning opportunity**;they have to work under **supervision**; ...no accompanist’.*

McGowan (2006:1001) reports that using students as co-workers enables the clinical team to get through the work. On the other hand, a negative attitude to students’ supernumerary status can negatively affect ward culture, resulting in both poor patient care and student learning, and ultimately, the facilitation of clinical judgement. Edelen (2009:3) and Koontz, Mallory, Burns and Chapman (2010:242) found that during clinical practice, nursing students spent much time on menial tasks because registered nurses are not well acquainted with the learning outcomes of student nurses. The self-adopted task-oriented working system spontaneously acted as a barrier to effective relationships and participation in patient related decisions. In addition, students reported being used as workers to respond to staff shortages, at the expense of their role as learners. McGowan (2006:1001) found that a negative attitude to students’ supernumerary status can negatively affect ward culture, resulting in both poor patient care and student learning and ultimately, the facilitation of clinical judgement.

Another obstacle for student accompaniment and the development of clinical judgement is the extensive use of **nursing agencies** to relieve the shortage of nurses in hospitals. It seems as if working for nursing agencies is popular due to the extra shifts to supplement income. Participants said:

*‘Agency personnel don’t take **ownership and accountability**; ...some hospitals are running **80% on moonlighters**’; ...some of the training schools have **no standards**; ...their nursing care is very poor’.*

Storch (2013:1) and Jacobs (2011:3) support the finding that agency nurses often have conflicting schedules between primary and secondary jobs, they suffer from burn-out and exhaustion as a result of working excessive hours, have inadequate training, skills and experience, lack of knowledge of institution’s procedures, policies and protocols. The severe shortage of nurses leave those in the system overworked, resulting in exhaustion as consequence of nurses working two jobs (Child, 2013). The training and subsequent qualifications offered by some training schools are questionable. Once the nurses’ graduate from these institutions, they struggle to cope in the professional environment and need

constant coaching and assistance from colleagues, putting additional strain on an under-resourced system. Nurses are sometimes employed in positions for which they are not qualified, but they accept the position for financial reasons. The inevitable result is a decline in the health of the overworked nurse, poor quality of care to patients, students receive questionable to no clinical accompaniment and are exposed to improper role modelling (ANON, 2014).

Role-modelling

Role-modelling, being a fundamental principle of learning in the clinical setting (Perry, 2009:38) impacts directly on patient care, as well as students' confidence and competence. SANC (2005:6) requires every professional nurse and midwife to create a learning environment and opportunities to foster professional growth and to actively engage in education and training of learners towards independence in the clinical nursing environment, thus being role models.

Participants reported:

*'There are **no role models**; ...an imbalance ...too many chiefs, less indians; ...the chiefs don't have sufficient knowledge; ...role model to be the sister **working together with student**; ...facilitators need to be **knowledgeable**; ...evidence-based practice; ...educators need to have experience, especially **clinical experience**; ...role models have to be there, ...**identify learning opportunities**; ...what **monkey see, monkey do**'.*

The absence of role models in the clinical area and a reluctance by ward sisters to act as role models and mentors are confirmed by Mabuda, Potgieter and Alberts (2008:23). Mochaki (2001:86) reports health personnel's antagonism towards students. Students' questions are not attended to and their knowledge is disregarded. Potgieter (2012:5); Bruce *et al.* (2011:228, 255) and Hayes (2001:112) highlight the importance of the learning accompanist as role model. It should be a subject expert with clinical experience, effective communication skills, a lifelong learner who is approachable, flexible, fair, cooperative with a positive attitude towards students and someone who demonstrates a sense of humour, warmth, empathy, good listening skills and someone

who conveys enthusiasm in every contact during patient care (Lee, Cholowski & Williams, 2002:415). The clinical accompanist as role model facilitates learning within the prescribed ethical-legal parameters and delivers quality care under pressure (Bruce *et al.*, 2011:228, 255). Dickson, Walker and Bourgeois (2006:417) define facilitation as the technique by which one person makes challenges easier for others in an atmosphere of mutual respect and trust to cope with the purpose of co-creating new knowledge through a process of regular reflective interaction between learner and facilitator (Papastavrou, Lambrinou, Tsangari, Saarikoski & Leino-Kilpi 2010), providing constant feedback and support to facilitate clinical judgement (Burns, Beauchesne, Rayan-Krause & Sawin, 2006:172,173; Hayes, 2001:112).

Communication

Communication in health care is in certain circumstances troublesome, but it is vital to ensure understanding in a culturally sensitive way to prevent misunderstandings. Good interpersonal relationships, communication and support between staff and students create an environment conducive to students' learning in the clinical environment. It results in a reduction in anxiety, positive socialisation, confidence and self-esteem, thus promoting learning.

Participants said: '*Precise **language** is an **urgent** thing; ...you don't have the **ability to speak the languages**; ...it influences the care; ...**language is a barrier** and we need to **clarify understanding***'.

Literature (Levett-Jones *et al.*, 2008:321; Rosenstein & O'Daniel, 2006:88) confirms that effective communication and teamwork do not always occur in clinical settings. Anxiety is associated with a lack of confidence to ask questions and a fear of making mistakes (Levett-Jones *et al.*, 2008:321). Sutcliffe, Lewton and Rosenthal (2004:190); Flin, Fletcher and McGeorge (2003:135) reveal that social, relational and organizational structures contribute to inconsistent, conflicting communication failures that have been implicated as contributors to adverse clinical events and patient outcomes. Effective communication enhances employee morale and decreases the length of patient stay (Casey & Wallis, 2011:36; Chant, Jenkinson, Randle & Russell, 2002:16).

Carlson *et al.* (2003:37) identify the discussion of information concerning the patients' condition and treatment plan during ward rounds and shifts changes as a vital learning opportunity for nursing students. Kaphagawani and Useh (2013:182) and Beukes *et al.* (2010:2) indicate that students should be able to use their developing communication skills to establish therapeutic nurse-patient relationships to evolve into competent practitioners. Communication appears therefore to be an obstacle in the process because professional nurses do not take the time to explain the patient treatment plan (Carlson *et al.*, 2003:37) and valuable opportunities for the demonstration of and development of clinical judgement are lost. Bruce *et al.* (2011:256) accentuate the quality of clinical teaching as crucial to the professional development and facilitation of clinical judgement of undergraduate students.

Interpersonal relationships and professional conduct

Interpersonal relationships and **professional conduct** serve as facilitation for a trusting climate conducive to sharing understanding, critical thinking and clinical judgement attempts. The participants reported conflict with students:

*'...students don't have **respect**, ...no **discipline**; ...staying home for **minor ailments**; ...private **cell phone** calls while on duty; ...transport is always the reason for **late coming**; ...**discussing personal issues** at the bedside; ...**disrespectful** attitudes; "...this have a **ripple effect** on the colleagues"; with doctors "...doctors can talk to you as if you are a dog"; with colleagues "...colleagues are **bullying** ye; ...sisters are all going on lunch and leave the students to solve the problem".*

Lambert and Lambert (2008:40) state that nurses are frustrated with their work environment due to staff shortages, increased workloads, the critical nature of their patients and advances in technology. Relationships are stressed and problems are highlighted include unfriendly staff, hostile attitudes, students are denied opportunities to learn, students are isolated and ignored, negative remarks about becoming a nurse and being treated with hostility. Preceptors were noted for undervaluing students' efforts, placing students under undue pressure and setting impossible expectations. McKenna, Smith, Poole and Coverdale (2003:92) report that classmates contribute to relationship problems by spreading rumours and acting in a nasty manner. Clarke (2012:270) view the consequences of bullying as numerous, including

feelings of frustration, powerlessness, depression, fear, guilt, anger, anxiety, self-hatred, a decrease in confidence, morale and productivity (Celik & Bayraktar, 2004:232; Sofield & Salmond, 2003:276). Rosenstein and O'Daniel (2006:88) report that disruptive behaviour by physicians and nurses, staff satisfaction, turnover, patient outcomes, medical errors and compromises in patient safety can be traced back to poor communication and ineffective teamwork as a result of poor interpersonal relationships (Seago, 2008:1, 2). The impact of negative relationships leads to burn-out, apathy, passive anger and symptoms associated with post-traumatic stress disorder, resulting in nurses who distance themselves from colleagues and patients (Foster, Mackie & Barnett, 2004:68; Randle, 2003:398) and an increase in errors (Rippon, 2000: 456). Due to the *distressing* nature of bullying, Randle (2003:398) reports an increase in absence from work, resulting in a negative effect on students' learning and progress to clinical judgment.

Conclusion theme 2

The clinical nursing environment is currently not conducive to the nurturing of nursing students' clinical judgement due to:

- Inadequate clinical accompaniment on account of staff shortages, insufficient role models, lack of motivation, knowledge and confidence of professional nurses for the task.
- The gap between theory and practice hampers critical thinking, an essential skill needed for clinical judgement.
- The large intake of first year nursing students is an obstacle for the clinical placement of nursing students to maximum exposure to appropriate learning opportunities.
- Nursing students are used as workforce for repetitive menial tasks to fill the gap in understaffed units, resulting in limited learning opportunities and a lack of guidance by experienced practitioners.

Stressed interpersonal relationships and inadequate communication are obstacles for trust and confidence to seek clarity and share understanding.

CONCLUSIONS AND RECOMMENDATIONS

The following recommendations, with special reference to nursing education, nursing practice and nursing research, are based on the findings of this study and should enhance the development of clinical judgement student learning in the clinical environment.

Recommendations for Nursing Practice

This research indicates insufficient role models, guidance and support for especially first year nursing students in the clinical learning environment. The following recommendations, if implemented, can improve student development of clinical judgement:

Clinical educators:

- Clinical nurse educators need to be clinically experienced and skilled. Nurse educators, preceptors, facilitators and ward sisters need to collaborate and function as team to integrate theory and practice. Educators need to avail themselves of the clinical environment to assure guidance on a continuous basis of especially first year nursing students.
- All role players in the teaching-learning of nursing students should be actively involved in the clinical environment to find solutions for mutually experienced problems relating to clinical accompaniment. The clinical judgement process should be a central aspect in the teaching-learning process. The importance and impact of role modelling on professional socialisation should be emphasised and actively promoted. The appointment of a clinical preceptor per clinical facility should be considered.

Student placement:

- Criteria should be drafted for nursing students' clinical placement based on safety, learning opportunities, infrastructure, resources, role modelling and support. Feedback from students should be attended to.

- Nursing students should be allocated to a specific discipline for a reasonable period of time to participate as member of the multi-professional team, for maximum exposure to learning opportunities.
- The allocation of nursing students per clinical area should be controlled and monitored to avoid overcrowding, maximise learning and to ease accompaniment and facilitation of learning.
- Opportunities for reflection, (all role players) should be established.

Recommendations for Nursing Education

- Varying teaching methodologies should be implemented to enhance problem solving skills.
- Students should be exposed to clinical learning experiences accumulating in complexity for blending of knowledge acquisition and knowledge use to enhance higher order thinking skills and reflective interaction.
- Critical thinking skills and clinical judgement should be stimulated and assessed throughout the learning process.

Recommended Nursing Research

- Investigation of appropriate teaching-learning strategies to enhance critical thinking and clinical development of instruments for assessment of clinical judgement. Investigation of students' perspective on clinical judgement. Investigation of the relationship between clinical guidance and clinical judgement.

Limitations of the study

The following limitations were identified:

- This study investigated professional nurses' understanding of clinical judgement in hospital settings and to a lesser degree in primary health care settings. A rather small sample for a "World Café" was utilised. Limited voluntary participation of primary health care nurses was a limitation due to high work load and skeleton staff in these facilities. Only eleven professional nurses participated voluntarily for the research. Other important information could possibly have been obtained if more professional

nurses, such as participants from primary health care settings, participated in the research. Therefore the results of this research are contextual, but they nonetheless provide food for thought.

CONCLUSION

The World Café method of data collection provided rich descriptions of professional nurses' understanding of the concept clinical judgement and factors hampering its development in the clinical environment. Nurses' understanding of the concept clinical judgement in nursing seems to be superficial and insufficient, especially regarding the relationship between a sound knowledge base, reasoning and critical thinking skills and its impact on effective interpretation, and ultimately decision making. This study revealed the complexity of theory-practice integration, clinical accompaniment and reflection as essential elements in the facilitation of clinical judgement and the need for a strategy to facilitate clinical judgement in the nursing environment. The recommendations should enhance the learning experiences in the development of thinking skills, attributes and knowledge of nursing students during their placement in the clinical learning environment.

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MANUSCRIPT THREE

CLINICAL JUDGEMENT IN NURSING: A TEACHING-LEARNING STRATEGY FOR THE SOUTH AFRICAN CONTEXT

Submitted to "Health SA Gesondheid"

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About 20 pages text only (maximum), excluding tables, figures and the list of references.

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Title: Informative but concise, In small capital letters, centered and in bold, font size 14, eg.: Names of questionnaires, countries, and or authors start with capital letters.

Author: Name(s), include full first name, e.g. Gert P. Roux, not G.P. Roux. Include the name of the department and the University of each author. The e-mail address, postal and phone number of the corresponding author should be included.

Abstract: Not more than 200 words, and should state concisely the scope of the work and the principal findings:

- ☐ the outcome of the study
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Opsomming: Always include an Afrikaans abstract of the article, please follow the same format and structure as indicate within the heading 'abstract'.

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The manuscript contains five sections, namely the introduction, research design, results, discussion and the references. All these first-level headings (except ‘introduction’) appear in bold capital letters and are centered.

INTRODUCTION:

The introductory section normally contains the following eight elements; headings are indicated in [brackets]:

- (1) [**Key focus of the study**] A thought-provoking introductory statement on the broad theme or topic of the research (why should I even bother to read further?);
- (2) [**Background to the study**] Providing the background or the context to the study (explaining the role of other relevant key variables in this study);
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- (4) [**Research Outcomes**] Indicate the most important controversies, gaps and inconsistencies in the literature that will be addressed by this study;
- (5) In view of the above (in 4) state the core research problem and specific research outcomes that will be addressed in this study;
- (6) [**Ethical Considerations**]
- (7) [**The potential value-add of the study**] Explanation of the study’s academic(theoretical & methodological) or practical merit and/or importance (provide the value-add and/or rationale for the study); and
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If lists of bullet points are presented, they should be in the following format:

- ☐ *Longevity*. How long individuals live.
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A synthesis and critical evaluation of the literature (not a compilation of citations and references) should at least include or address the following aspects:

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RESEARCH DESIGN

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Research approach

A brief description of the research approach followed in the study should be included. It should, for instance, explain from which qualitative tradition the study is and also motivate why this approach is specifically required.

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Under the research method the author(s) provide at least descriptions on the following third-level headings, namely: research context (setting), entrée and ethical considerations, data collection methods, recording of the data, data analyses, strategies employed to ensure data quality and reporting.

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The qualitative sampling procedures used in the study, such as cueing, purposive sampling or snow-balling are described and motivated in this section.

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In this section the author(s) explain where the data was sourced and which data collection methods (e.g. semistructured or unstructured interviews, focus-groups) were applied. In some instances solicited documents are also used.

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In this case the author(s) explain which methods of data analyses were applied. Different data analyses techniques result in different variations of qualitative research.

FINDINGS & DISCUSSIONS

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Tables and Figures are each presented on a separate page after the section

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Therefore, no tables or figures appear in the text of an article, but are each displayed on a separate page for the type setter to see as a whole. If the sizes of the table or figure are too large it can be uploaded as supplementary files in Step 4 of the submission process. It is essential that all table and figures are clearly labelled.

CONCLUSION & RECOMMENDATION

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This section normally contains the following eight elements:

- ☐ restate the main outcome of the study;
- ☐ reaffirm the importance of the study by restating its main contributions;
- ☐ summarise the results in relation to each stated research outcome or research hypothesis;
- ☐ link the findings back to the literature and to the results reported by other researchers;
- ☐ provide explanations for unexpected results;
- ☐ provide the conclusion and recommendations (implications for practice);
- ☐ point out the possible limitations of the study; and
- ☐ provide suggestions for future research.

Second and third-level headings may be used.

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CLINICAL JUDGEMENT IN NURSING: A TEACHING-LEARNING STRATEGY FOR THE SOUTH-AFRICAN CONTEXT

Full author details:

Anna C. van Graan
School of Nursing Science,
North-West University (Potchefstroom Campus)
E-mail: Anneke.VanGraan@nwu.ac.za

Co-promoter: Martha J.S. Williams

School of Nursing Science,
North-West University (Potchefstroom Campus)
E-mail: Marthyna.Williams@nwu.ac.za

Promoter: Magdalena P. Koen

School of Nursing Science,
North-West University (Potchefstroom Campus)
E-mail: Daleen.Koen@nwu.ac.za

Corresponding author:

Mrs. Anna C. van Graan
School of Nursing Science,
North-West University (Potchefstroom Campus)
Private bag X6001
Box 520
Hoffman Street
Potchefstroom, South Africa, 2520
Cell: 082 6869659
Fax: 018 299 1827
E-mail: Anneke.VanGraan@nwu.ac.za

Authors' Contribution

Mrs. Anna C. van Graan completed a doctoral thesis for the degree Philosophiae Doctor in Nursing (Health Science Education) at the Potchefstroom Campus of the North-West University. Prof. Daleen Koen was her promotor and Dr. Marthyna Williams her co-promotor. The student completed the whole study process and the facilitator and co-facilitator gave feedback, structure and guidance during this process and checked the work for final submission for examination, as well as for submission as an article for publication.

Summary:

Number of words: 4 236

Pages: 17

Tables: 3

Figures: 2

Notes: all tables and figures will be included in the text for the purpose of the thesis as this should improve the interpretation of the text. For publication purposes all tables and figures will be added as annexures after the reference list according to the prescribed guidelines.

The manuscript is submitted to Health SA Gesondheid and awaits exception for publication

ABSTRACT

The South African health care and education systems are challenged to provide independent, critical thinking nurses who can cope with diversity in a creative way and define their role in a complex, uncertain, rapidly changing health care environment. Quality clinical judgement is an imperative characteristic that newly qualified professional nurses should possess. To accommodate these needs, SANC in line with the SAQA Act, advocated the development of teaching and learning strategies to balance theory and practice opportunities together with a outcome-based, student-centered approach and appropriate clinical supervision. This resulted in a positive outcome to facilitate the integration/ fusion of theory and practice. The purpose of this study was to synthesise a teaching-learning strategy for creating an enabling learning environment to facilitate clinical judgement in South African undergraduate nursing students.

The proposed teaching-learning strategy is grounded in modern-day constructivist approach of learning. The conceptual or theoretical framework of this study aimed to link the central concepts that were identified from the conclusions of four (4) strategic objectives of the two preceding phases of the study into a new structure of meaning that served as a basis for the proposed strategy.

The implementation of the proposed action plan to achieve the stated strategic objectives should empower the relevant role players to facilitate clinical judgement in undergraduate nursing students and thereby promote autonomous and accountable nursing care.

Key words: *outcomes-based approach, competence-based learning, teaching-learning, constructivist learning, critical thinking, reflection*

OPSOMMING

Die Suid-Afrikaanse gesondheidsorg- en onderwysstelsels word uitgedaag deur die ideaal om onafhanklike, krities denkende verpleegkundiges te lewer wat op 'n kreatiewe wyse kan tred hou met diversiteit en hulle rolle in 'n komplekse, onsekere en veranderende gesondheidsorgomgewing kan afbaken. Kwaliteit kliniese oordeel is 'n onontbeerlike vaardigheid waarvoor pas gekwalifiseerde professionele verpleegkundiges moet beskik. Die SARV in lyn met SAQA wetgewing, stel die ontwikkeling van 'n onderrig-leer strategie voor, om sodoende praktyk en teorie leergeleenthede te balanseer deur die navolg van uitkoms-gebaseerde, student- gesentreerde benadering en kliniese supervisie. 'n Positiewe uitkoms van teorie en praktyk integrasie/ fusie word sodoende gefasiliteer. Die doel van hierdie studie was om 'n onderrig-leer strategie vir die fasilitering van kliniese oordeel by Suid Afrikaanse voorgraadse verpleegkunde studente saam te stel.

Die voorgestelde onderrig-leer strategie is begroot vanuit hedendaagse konstruktivistiese beginsels van leer. Die konseptuele of teoretiese raamwerk van hierdie studie streef daarna om die sentrale konsepte wat geïdentifiseer is van vier (4) strategiese uitkomstes en ontleen is uit die gevolgtrekkings van die twee voorafgaande fases van die studie, in 'n nuwe struktuur van betekenis te plaas, wat as basis gedien het vir die voorgestelde strategie.

Die implementering van die voorgestelde aksieplan om sodoende die strategiese uitkomstes te bereik behoort die betrokke rolspelers te bemagtig om kliniese oordeel by voorgraadse verpleegkunde studente te fasiliteer en daardeur onafhanklike en verantwoordbare verpleegsorg te bevorder.

Sluitelwoorde: *uitkomsgebaseerde benadering, bevoegdheidsgebaseerde leer, konstruktivistiese leer, onderrig-leer, kritiese denke, refleksie*

Introduction

Newly registered nurses often discover their shortcomings when arriving in the real life health care environment. The role of the nurse is becoming increasingly more complex; the health care environment demands an emphasis on patient-centred care, patient satisfaction and evidence-based practice (Nabors, 2012:1). Kells and Koener (2000:1); Chang, Chang, Kan and Chou (2011:3224) indicate that newly registered nurses lack the high levels of cognitive proficiency demanded by the health care environment. The focus seems to be on improving clinical skills rather than refining critical reasoning and communication aptitude. This has resulted in newly registered nurses showing reluctance to make high-level decisions in an independent manner due to a fear of making mistakes and being criticised by peers (Nabors, 2012:1; Thomas, Rayen & Hodson-Carlton, 2009). Nurses struggle with a lack of support, nursing/nurse educator shortages, complex patient and work environment issues that are disparate with their previously theoretical university world (Thomas, Bertram & Allen, 2012:89) while trying to cope with the expansion in role (Simpson & Courtney, 2002:89; Clark & Hott, 2001:173).

Focus and background of the study

Nurses competent in clinical reasoning and judgement seem to have a positive impact on patient outcomes, while nurses lacking these skills may be at risk of not detecting acute patient changes and complications, resulting in harm to patients and poor quality care (Simpson & Courtney, 2002:89; Frith & Clark, 2013:111). The South African health and education systems are challenged by the country's need for independent, critical thinkers who are able to question, weigh evidence, make informed judgements and accept the incomplete nature of knowledge, as well as to influence change and cope with diversity in a more creative way (Republic of South Africa, 1995:22; SANC, 2005).

Problem solving has long been recognised as central to nursing practice and it requires the development of critical thinking and decision-making skills (Roberts, White & Fitzpatrick., 1993:883). There is thus an expectation that new nursing graduates will come to the clinical

environment possessing the knowledge and thinking skills needed for the required nursing care (Frith & Clark, 2013:3, 4; Maskey, 2008:11; Oermann & Gaberson, 1999:443).

Consequently, nursing curricula throughout South Africa are undergoing extensive revision. The main reason for this change is that the education and training programmes of the past were too content-based (Integrated Strategic Planning Framework for Teacher Education and Development in South Africa 2011–2025 Technical Report; Frith & Clark, 2013:5). From the researcher's experience as a nurse educator, nursing students are accustomed to the presence of the lecturer/educator in class who provides the theoretical component of the curriculum, using traditional teaching strategies (lectures) and offering information (facts) to be memorised, with the lecturer in direct control of the content (Bruce, Kloppe & Mellish, 2006:194; Potgieter, 2012:4). Potgieter (2012:5) and Pongmarutai (2010:6) accentuate the knowledge explosion over the past decade, which implies that nursing science educators can no longer simply “cover” the content of a subject/discipline. Frith and Clark (2013:3) stress that educators should help students to integrate the knowledge from different learning areas and the clinical environment to understand patient needs. Students need to identify the salient aspects of the situations in which patient care takes place. In response, nurses must learn to grasp the nature of the situation to act appropriately in relation to the identified need (Frith & Clark, 2013:3).

Nursing education institutions (NEI's) are increasingly challenged to revise their teaching-learning approach and to develop creative programmes to facilitate personal and professional growth in nursing students to produce the type of professional nurse capable of matching the educational requirements. Integration of knowledge will potentially limit the burden of content overload. This can be accomplished by fusing theory and practice (Frith & Clark, 2013:2). Frith and Clark (2013:2) and Lave and Wenger (1991:55) emphasise the creation of learning environments that recognise the clinical environment as an important source of knowledge, theory and engagement, with a community of practice as basic source of learning. Such a learning environment will enable nurses and educators to narrow the practice-theory gap and cope with the demands of the National Health Policy (National Department of Health, 2007:9) and the SAQA directives, and to simultaneously meet the increasing demand for affordable health care (Chan & Ip, 2006:683; Distler, 2007:53; Frith & Clark, 2013:7; SAQA Act No. 58 of 1995).

It is therefore important to identify appropriate methods of teaching and learning, given that the traditional lecture alone seems obsolete. Nowhere is dialogue more pertinent than in nursing where rigorous scholarly inquiry must be applied to the realities and demands of practice (Boyer, 1990).

To accommodate these needs SANC (2005), in line with the SAQA Act (Act 58 of 1995), advocates the development of teaching and learning strategies to enhance student-centered education, the acquisition of core competencies and compliance with cross-field outcomes as essential elements of nursing education. The WHO (2001) and SANC (2005) further suggest that a balance of theory and practice opportunities should be provided, together with a student-centered approach and appropriate clinical supervision. SANC's aim is that the mentioned supervision should act as student support and result in a positive outcome to facilitate the integration of theory and practice (Landmark, Hansen, Jones & Bohler, 2003:834-841; Oermann & Gaberson, 1999:444; SANC, 2005).

In the wake of a growing concern about nurse competence, nursing programmes necessitate a move towards competency-based curricula (Nielsen, 2009:350-351) within an outcome-based education approach (OBE) with an emphasis on primary health care and problem-based learning (PBL) strategies (Lombard & Grosser, 2008; SAQA Act 58 of 1995; SANC, Act 33 of 2005).

Competency-based education focuses on the achievement of specific competencies, whereas outcomes-based education focuses on knowledge, skills and attitudes (Aries & Du Plessis, 2004:11). Students progress by demonstrating their clinical competence, mastery is the sole determinant of progress, which means that students can prove that they have mastered the specific competencies (it *measures* learning, what comes *out* of the education) required for a particular course, regardless of how long it takes (Mendenhall, 2012; Arries & Du Plessis, 2004:11; Soares, 2012:5). Competency-based Learning (CBL) centres on the capacity and responsibility of each student and the development of his/her autonomy and self-reliance (Lombard & Grosser, 2008; Sanchez, Ruiz, Olalla, Mora, Peredes, Otero, San Ildefonso & Eizaguirre, 2008:33-34).

The authors Nielsen (2009:350-351), Slabbert and Gouws (2006:152), as well as Arries and Du Plessis (2004:11) support the above and state that courses currently do not adequately prepare the student for the professional demands they face after completing their studies. CBL aims to develop generic or transversal competences, which are specific competences for the profession with the aim to endow students with scientific and technical knowledge and enable them to apply such knowledge in diverse complex contexts. Knowledge is integrated with attitudes and values in ways that suit students' personal and professional lives and that enhance lifelong learning (Sanchez *et al.*, 2008:34).

In CBE, assessment is embedded in every step of the learning process to provide students with guidance and support towards competency (Soares, 2012:5). Nurses have become very routine-conscious, in the sense that duties are completed as allocated (Ericson *et al.*, 2007:58-72). Learning to reason effectively or reflect critically does not happen serendipitously, nor does it occur through osmosis by the observation of expert nurses in practice. The OBE approach emphasises what the undergraduate nursing student should be able to do on completion of a learning programme by implying certain competencies. The need for a foundational, practical and reflective approach with the focus on the achievement of competence is not questioned (Ericson, White & Ward, 2007:65; Klopper, 2009:3, 9-20). However, the implementation of an innovative teaching programme with a multiplicity of teaching-learning strategies that is guided by the stimulation of students' cognitive abilities and clinical judgement skills is essential for the achievement of outcomes and to bridge the gap between nursing education and practice (Distler, 2007:54; Thomas *et al.*, 2012:88). The teaching approach has to provide an appropriate learning environment, resources, student support and continuous assessment conducive to enhancing the critical and reflective thinking skills proposed as an identified need (CHE, 2000:17; Potgieter, 2012:4; Ramsden, 1992:6; SANC, 2005; Van der Horst & McDonald, 2003:133-157).

The SANC (2005) accentuates the importance of the abovementioned and states the purpose of nursing education as “to develop the undergraduate nursing student on a personal and professional level to become an independent, knowledgeable, safe practitioner with analytical and critical thinking skills.” Therefore, OBE as educational approach or strategy serves as vehicle to reach the stated objectives (knowledge, skills, attitudes and values) because it enhances critical thinking and assists in developing the clinical decision-making and

judgement skills relevant to the discipline of nursing. Such a programme facilitates the integration of theory and practice towards the attainment of set outcomes and the achievement of competence, as well as bridging the students' response to the conflict they encounter when they merge the academic ideal with the clinical reality (Arries & Du Plessis, 2004:11).

Bruce *et al.* (2011:195) and SANC (2005) describe outcomes, including the critical cross field outcomes (essential life skills), as learning results that students should achieve at the end of a specific course. There is thus a necessity to prepare a nursing student to actively construct the knowledge necessary to deal with the realities and complexities of patient care (Klopper, 2009:3). As confirmed by Fish and Twinn (1997:87), this will allow nursing students to use knowledge across a variety of contexts, including complex decision-making and judgments founded on moral principles (Gravett, 2005; SAQA, 2011:4-6; SANC, 2005; WHO, 2001). The nursing student will subsequently be prepared for a professional life, able to influence change, cope with diversity in a creative way and accept moral and legal accountability for his/her nursing practice (Fish & Twinn, 1997:87-89; Nursing Act, 2005 (Act 33 of 2005); SAQA, 2011:4-5).

In the the previous phases 1&2 (manuscripts 1&2) of this research on clinical judgement the researcher identifies central concepts derived from the concluding statements from each phase as indicated in Table1. The conceptual or theoretical framework of this study aims to link the central concepts that were identified from the conclusions of the two preceding phases of the study (see Table 1) into a new structure of meaning (Figure 2) that will serve as a basis for the proposed teaching-learning strategy.

Problem statement

Research (Arries & Du Plessis, 2004:11; Slabbert & Gouws, 2006:152) indicates that the current South African nursing programmes do not adequately prepare the nursing student for the professional demands they have to face after completing their basic nursing education. SANC (2005) states the purpose of nursing education as “to develop the undergraduate nursing student to become an independent, knowledgeable, safe practitioner with critical thinking skills.” This goal is thus in default.

It has become necessary to develop appropriate teaching-learning strategies to enhance the nursing student's critical thinking skills to be able to execute sound clinical judgement. Boyer (1990) states that this dialogue is nowhere more pertinent than in nursing where rigorous scholarly inquiry must be applied in the realities and demands of practice.

The changing needs of the health care environment require a shift to interactive, student-centered curricula (Potgieter, 2012:4). Nurses need to think critically and innovatively; should be competent in reflection and self-critique, synthesise information, link concepts and become self-directed lifelong learners. They must also be able to decide when and why higher order thinking is essential (Frith & Clark, 2013:4).

Various strategies, such as concept mapping, group discussions, clinical conferences and reflective exercises (reflective journals) (Lasater, 2007:496; Potgieter, 2012:4; Tanner, 2006b:205) can facilitate higher order cognitive skills and contribute to the development of clinical judgement skills. This is not a new, but an important focus for nursing education (Gravett, 2005:31; Tagliareni, 2009:69). The controversies around the definition and measurement of such skills have challenged how they can be taught and learnt so that nurses can apply the information in various settings and situations (Simpson & Courtney, 2002:90). The challenge is to transform this vision into a reality, to make a significant contribution to the nursing profession by empowering nurses on all levels to meet the demands. Especially the undergraduate nursing student will thus be prepared for a professional life. Cognitive skills will enhance best practices, precision, accuracy and the integrity of decision-making and nurses will accept moral and legal accountability for his/her nursing practice (Fish & Twinn, 1997:87-89; Luckasson, 2010:23; Nursing Act, 2005 (Act 33 of 2005); SAQA, 2011:4-5).

In order to achieve this aim, the overall purpose of this study is to synthesise a teaching-learning strategy for instituting an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students within a South-African context.

Research objectives

- To describe a conceptual framework for an enabling learning environment to facilitate clinical judgement from a modern day constructivist approach within the South African nursing environment.
- To construct a diagrammatic presentation of a conceptual framework for an enabling learning environment to facilitate of clinical judgement from a modern-day constructivist approach within the South African nursing environment.
- To synthesise a teaching-learning strategy for the creation of an enabling teaching-learning environment to facilitate clinical judgement from a modern-day constructivist approach in undergraduate nursing students within the South African nursing environment

Conceptual framework

Burns and Grove (2011:218) describe a framework as an “abstract, logical structure of meaning that enables the researcher to link findings to nursing knowledge.” According to Henning, Van Rensburg and Smit (2004:26), the conceptual framework anchors the research in literature and facilitates the dialogue between the literature and the study. The conceptual or theoretical framework of this study aims to link the central concepts that were identified from the conclusions of the two preceding phases of the study (see Table 1) into a new structure of meaning (Figure 2) that will serve as a basis for the proposed strategy.

The researcher compiled the conceptual framework by following the steps below:

- The identification of central concepts derived from the concluding statements of:
 - Phase 1: Clinical judgement within the South African clinical environment:
A concept analysis (See Table 1)
 - Phase 2: Professional nurses’ understanding of clinical judgement:
A contextual inquiry (See Table 1).
- The description of the components of the conceptual framework;

- A description of a conceptual framework;
- Diagrammatic presentation of the conceptual framework.

Table 1: Concepts/ identified needs selected from the conclusions reached in phases 1-2 of the research (Manuscripts 1 & 2)

Conclusions	Central concepts/ Identified needs
<p>Clinical judgement within the South African clinical environment: A concept analysis (Phase 1, Manuscript 1):</p> <p>Conclusion 1: Clinical judgement is the conclusion at which a nurse arrives by using the ability to recognise salient pieces of information gathered by direct observation and patient assessment within an undefined clinical context. Interpretation of meaning is followed by a period of reflection and reasoning to come to a clinical grasp/informed opinion of the situation. An appropriate response to the identified salient aspects is based on empirical knowledge, shaped by the nurse's clinical experience, intuition and ethical-moral beliefs.</p>	<ul style="list-style-type: none"> • knowledge on what <i>clinical judgement as skill</i> entails: <ul style="list-style-type: none"> • patient • knowledge/clinical experience • ethical-moral beliefs • assessment/observation • decision making • appropriate response • reflection critical thinking/ reasoning • interpretation
<p>Professional nurses' understanding of clinical judgement: a contextual inquiry (Phase 2, Manuscript 2)</p> <p>Theme 1: Meaning of the concept clinical judgement</p> <p>Conclusion 1: The participant's verbalised a basic and simplistic understanding of the concept of clinical judgement in nursing. It seems as if clinical judgement is confused with good nursing care. The understanding of the relationship between a sound knowledge base, reasoning, critical thinking skills and its impact on effective interpretation, and ultimately decision making, seems to be insufficient.</p>	<ul style="list-style-type: none"> ▪ a <i>sound knowledge base; reasoning; critical thinking skills; effective interpretation; reflection, problem solving and decision making skills</i>

Conclusions	Central concepts/ Identified needs
<p>Theme 2: Factors influencing the development of clinical judgement</p> <p>The clinical nursing environment is currently not conducive to the nurturing of nursing students' clinical judgement due to:</p> <p>Conclusion 1: Inadequate clinical accompaniment on account of staff shortages, insufficient role models and the lack of motivation, knowledge and confidence for the task among professional nurses.</p>	<ul style="list-style-type: none"> ▪ an <i>enabling teaching-learning environment</i> for the facilitation of clinical judgement through clinical accompaniment and role modelling
<p>Conclusion 2: The gap between theory and practice hampers critical thinking, an essential skill needed for clinical judgement.</p>	<ul style="list-style-type: none"> ▪ <i>fusion of theory and practice</i>
<p>Conclusion 3: The large intake of first year nursing students is an obstacle for the clinical placement of nursing students for maximum exposure to appropriate learning opportunities</p>	<ul style="list-style-type: none"> ▪ <i>effective placement of nursing students for maximum exposure to appropriate learning opportunities and fusion of theory and practice</i>
<p>Conclusion 4: Nursing students are used as a workforce for repetitive menial tasks to fill the gap in understaffed units, resulting in limited learning opportunities and a lack of guidance by experienced practitioners.</p>	<ul style="list-style-type: none"> ▪ appropriate learning opportunities through <i>effective clinical accompaniment and role modelling.</i>
<p>Conclusion 5: Stressed interpersonal relationships and inadequate interactive communication are obstacles for trust and confidence to seek clarity and share understanding.</p>	<ul style="list-style-type: none"> ▪ need for <i>reflective interaction to ensure appropriate learning opportunities through effective clinical accompaniment and role-modelling.</i>

Components of the conceptual framework

The teaching-learning strategy for creating an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students as the aim of this study can be

described according to the components of the conceptual framework identified by Williams, Klopper, Koen and Coetzee-Van Rooy (2008:181). This framework serves as foundation of a teaching-learning strategy from a modern-day constructivist approach and is presented diagrammatic in Figure 2.

The role players: Learning accompanists (nurse educators), clinical accompanists (clinical facilitators, preceptors, mentors), undergraduate nursing students, professional nurses and health care professionals (doctors, social workers, physiotherapists, pharmacists), patients and teaching-learning material and/or –situation.

Context: An enabling learning environment grounded in a modern-day constructivist approach of learning in Nursing Education (fusion of theory and practice).

Process: A teaching-learning experience shared by role players for the empowerment of undergraduate nursing students by means of higher order thinking skill competencies such as critical thinking, reflection, clinical-ethical reasoning and decision-making in order to achieve fusion of theory and practice through effective clinical accompaniment and role modeling.

Planned outcome: Undergraduate nursing student empowered in clinical judgement to achieve autonomous and accountable quality nursing care.

The conceptual framework for an enabling clinical learning environment to facilitate clinical judgement in undergraduate nursing students is explained in terms of the components as described below and is visually presented in Figure 1.

Description of the conceptual framework

Ethical-legal framework: The Nursing profession in South Africa is regulated by the Nursing Act (Act 33 of 2005) and regulations setting and maintaining standards for education and practice with an ethic of care under the auspices of the South African Nursing Council (SANC). The Nursing Education Institutions (NEI) provide learning opportunities to ensure competent nurses who are responsive to the country's health care needs within the parameters of the National Health Act, 2003 (Act 61 of 2003) as amended by the National Health Amendment Act 2013 and the Higher Education Act (Act 101 of 1997).

Context: This framework aims to create an enabling teaching-learning environment grounded in a modern-day constructivist approach of learning focusing on knowledge construction through critical reflection, interpretation, understanding and conceptual change (new understanding). This nursing environment is inclusive of the clinical nursing environment (nursing practice), nursing education (theory) and the interactions of the role players involved in the teaching-learning situation.

Process: To empower undergraduate nursing students' clinical judgement, an interactive process of accompaniment and supervision is advocated. Skilled and experienced professionals act as role models to actively interact with students, to assist them, to reflect, share and challenge understanding, to guide and support nursing students to integrate/fuse theory learnt in the classroom with the reality of nursing practice. The scientific method of nursing serves as vehicle for the development of clinical judgement; information gathering by means of reasoning and thinking skills; interpretation of the gathered data by linking it to theoretical and experiential knowledge to make sense; and effective response by means of clinical decision making regarding appropriate interventions. This process follows a spiral developmental effect from elementary to complex. Continuous, critical reflection assesses the effectiveness of the process, provides opportunities for interaction between the role players and enables the dissemination of insight to encourage students to develop interpretive, analytical, evaluative, inferential and explanatory skills to arrive at clinical judgement.

Outcome: The envisioned objective is the creation of an enabling teaching-learning environment for the empowerment of undergraduate nursing students in clinical judgement within the ethical-legal parameters of the nursing profession.

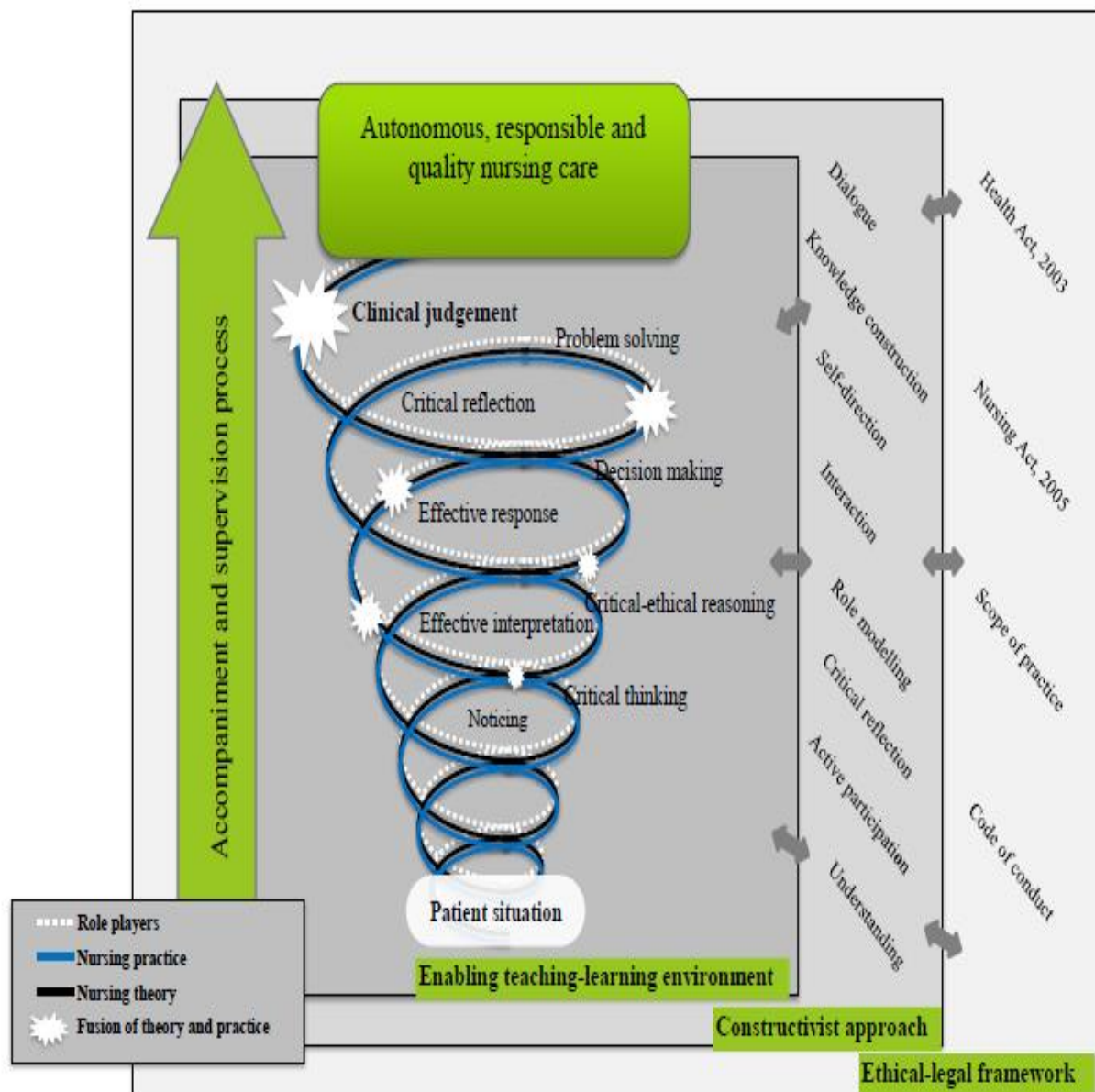


Figure 1: Diagrammatic presentation of the conceptual framework

Strategic process: A strategy can be defined as an effort or deliberate action implemented to out-perform its rivals (Ehlers & Lazenby, 2010:3). For the purpose of this study strategy refers to a pedagogical approach (Ekwensi *et al.*, 2006) as a long-term plan intended to achieve a particular purpose (Ehlers & Lazenby, 2010:3; Pearce & Robinson, 2000:4). Learning or instructional strategies determine the approach for achieving the learning outcomes and are

included in the pre-instructional activities, information presentation, undergraduate nursing student activities, testing, and follow-through. The strategies are usually tied to the needs and interests of students to enhance learning and are based on different types of learning styles (Ekwensi *et al.*, 2006).

Thus, the learning outcomes point towards the instructional strategies, while the instructional strategies will point to the medium that will actually deliver the instruction, such as e-learning, self-study or experiential learning. For this study the medium is the nursing environment (nursing practice and nursing education (theory)).

This study proposes a strategy or long term plan for an enabling learning environment for the purpose of the empowerment of undergraduate nursing students in clinical judgement.

The **strategic process** is described as a methodical, dynamic, entrepreneurially structured process whereby an organisation (In this research an organisation refers to the teaching-learning environment in interaction with the student) defines its identity and purpose over time and develops a vision and mission, states its values and principles. The strategic process enables the prioritisation of long- and short-term objectives and actions to achieve the goal (Ehlers & Lazenby, 2010:3). A strategy in reference to the teaching-learning context is an overhead plan to achieve specific teaching-learning outcomes. In this study, the proposed teaching-learning strategy is formulated on the basis of 4 (four) objectives and an action plan (short term plan) to achieve the stated goal. For the purpose of this research the strategic vision or aim is to institute an enabling learning environment to facilitate clinical judgement in undergraduate nursing students.

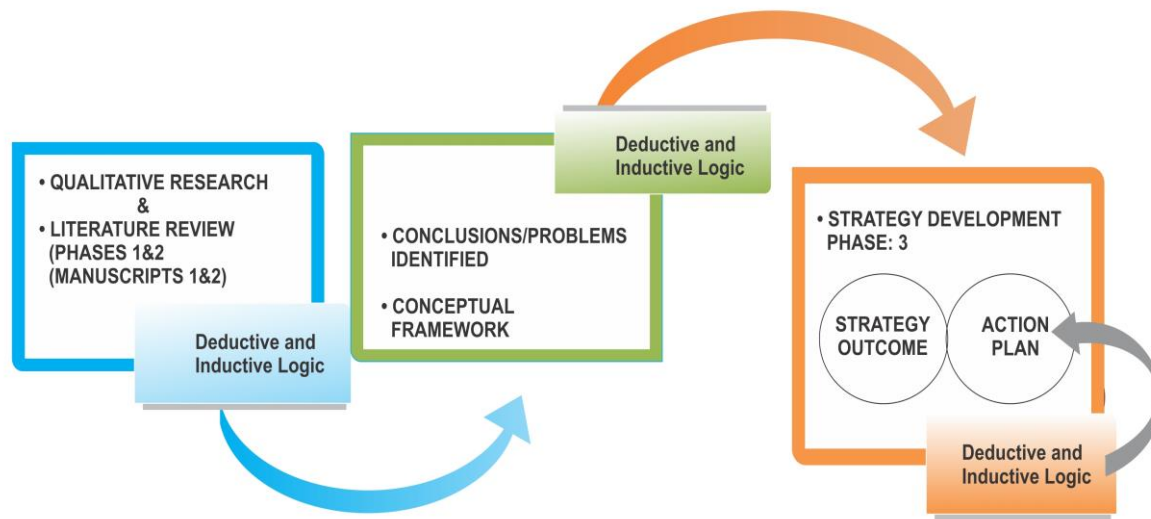


Figure 2: Graphical presentation of the method of strategy development (adapted from Knobloch 2010)

Strategy Development

The development of a strategy focuses on the four elements as described below:

Vision: Developing a strategic vision is the first step in the strategic process as it provides the framework for strategic planning and what the organisation’s long-term direction or desired future should be (Ehlers & Lazenby, 2010:68; Thompson & Strickland, 2001:6). The South African Nursing Council states its vision as “excellence in professionalism and advocacy for health care users.” In line with this, the researcher’s vision of the proposed strategy is instituting an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students.

Mission: The mission statement embodies the philosophy, values, identity, character and priorities of the teaching–learning environment in interaction with the student and reflects the image the teaching–learning environment wants to project as the intended, future goal (Ehlers & Lazenby, 2010:71).

The mission statement of the higher education institution (HEI’s) is a strive to create and sustain dynamic communities of inquiry in which students are valued partners by becoming self-directed and life-long learners, who make distinctive contributions to society and the world of work as responsible citizens, knowledgeable professionals, innovative thinkers and

effective leaders (NWU, 2014). This mission statement is congruent with the vision statement of DoHE, SANC and the researcher. The mission for an enabling teaching-learning environment as developed from the role player's visions reads as follows:

The creation of an enabling learning environment based on constructivist learning principles as a powerful learning experience for undergraduate nursing students, and the facilitation of clinical judgement within the ethical-legal parameters for the nursing profession, making a contribution towards the delivery of autonomous and accountable nursing care.

The **values and principles** underlying clinical judgement include the nurses' ethical perspectives during the relationship with the patient as part of the nurses' moral and ethical reasoning (Alfaro-LeFevre, 2012:130-132). Values are clarified as personal, professional and organisational. Personal values refer to beliefs, quantities, and standards that affect a nurse's ability to cope with various circumstances during care giving. An ethic of care reflects respect, individual uniqueness, personal relationships and the dynamic nature of life (Alfaro-LeFevre, 2012:130). The personal values should therefore be compatible with the values of the profession. SANC states its values as advocacy, caring, quality, professionalism, innovation and relevance. The essential principles of an ethic of care include compassion, collaboration, accountability and trust. The vision (aim) of this study is compiled in objectives to realise the facilitation of clinical judgement within the stated principles.

Strategic process

The strategic process includes long term goals (aims) or statements that indicate the results an education institution seeks to achieve over a period of time (Pearce & Robinson, 2000:241). These should be in line with the institution's vision and reflect the teaching-learning environment's direction (Ehlers & Lazenby, 2010:175).

The long term goal (aim) is defined in short term goals (objectives) that form the action plan that should be monitored and assessed (Ehlers & Lazenby, 2010:175). The four (4) strategic objectives for this study were developed by means of deductive logic based on the seven (7) problem areas.

Table 2: Summary of strategy and objectives

The following section describes the strategic objectives in association with an action plan to achieve the strategic aim (see table 1)

The strategic aim of this study is to create an enabling teaching-learning climate for the facilitation of clinical judgement skills in undergraduate nursing students based on the following objectives:	
Objectives	Identified needs relevant to objectives
1. To facilitate responsive learning experiences for the development of clinical judgement through accompaniment, supervision and role modelling based on constructivist principles;	1, 2, 3, 4, 5 , 6, 7
2. To apply a variety of teaching learning methods to improve thinking- reasoning, and problem solving skills;	1, 2,3, 4, 5, 6, 7
3. To accommodate the uniqueness and diversity of students' learning needs and -styles;	1,2, 3, 4, 5, 6, 7
4. To facilitate role players active participation and accountability for learning to achieve fusion of theory and practice.	1, 2, 3, 4, 5, 6, 7

Table 3: Action plan

The following section describes the strategic objectives as embodied in an action plan to achieve the outcome and the strategic aim.

<p>Strategic objective 1:</p> <p>The creation, recognition and utilisation of potential learning experiences to facilitate clinical judgement through accompaniment, supervision and role modelling based on constructivist principles</p>	<p>Literature support</p>
<p>Actions:</p> <p>All role players (professional nurses, lecturers, clinical preceptors, undergraduate nursing students, members of the multi-disciplinary team) accept responsibility for creating and maintaining a relaxed, non-threatening, safe environment conducive to continuous, life-long learning by means of:</p> <ul style="list-style-type: none"> • Interpersonal relationships grounded in ethical and professional values; • A collegial network to assist one another where parties are approachable and available for guidance, support, clarification and feedback; • Opportunities for discovery learning, sharing of understanding, self-assessment and individual decision-making with the support, guidance and feedback from experienced and knowledgeable professionals. • Demonstration and encouragement of critical thinking by linking existing knowledge (experiences and theory) to new data (practice) through the processes of assimilation and accommodation to help nurses make sense and assist in decision-making; 	<p>Frith and Clark (2013)</p> <p>Alfaro-LeFevre (2012)</p> <p>De Sward, Du Toit and Botha (2012)</p> <p>Soares (2012)</p> <p>Bos <i>et al.</i> (2011)</p> <p>Bruce <i>et al.</i> (2011)</p> <p>Kanno and Koeske (2010)</p> <p>Yilmaz (2010)</p> <p>Duffy (2009)</p> <p>Moscaritolo (2009)</p> <p>Klopper (2009)</p>

<ul style="list-style-type: none"> • Opportunities for post-conference debriefing and reflection by sharing, clarifying and challenging interpretation, with alternative viewpoints to actively construct new understanding. • Continuous supervision and role modelling during which a skilled/experienced individual (professional role player) assists, educates and supports a less experienced person (student) in the art and skills of clinical judgement. • Integrating observation and explicit questioning to stimulate students' reasoning skills for different clinical decisions, making inferences from given data, recognising unstated assumptions and weighing evidence. • An atmosphere that fosters interaction and dialogue promotes risk-taking and avoids competition. • Assessment to include analysis, synthesis and motivation for decision making. • Empowerment of role players by means of workshops and short courses in the art and skills of clinical accompaniment to facilitate clinical judgement in undergraduate nursing students. • Regular constructive, open discussion sessions between role players to assess problem areas, vent feelings and plan for improvement. 	<ul style="list-style-type: none"> ✚ Mabuda, Potgieter and Alberts (2008) ✚ Clynes and Raftery (2008) ✚ Maskey (2008) ✚ Yilmaz (2008) ✚ Distler (2007) ✚ McBrien (2007) ✚ Nielsen and Stragnell (2007) ✚ Tang and Chow (2007) ✚ Baxter (2007) ✚ Burns, Beauchesne, Rayan-Krause and Sawin (2006) ✚ Kuiper (2005) ✚ Pesut (2004) ✚ Bezuidenhout (2003) ✚ Kells and Koener (2000) ✚ Brunt (2005a) ✚ Gillespie and McFetridge (2006) ✚ Gagliardi, Perrier, Webster, Leslie, Bell, Levinson, Rotstein, O'Tourangeau, Morrison, Silver and Straus (2009)
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Strategic objective 2: The application of a variety of teaching-learning methods to improve thinking-, reasoning and problem solving skills	Literature support
<p>Actions:</p> <ul style="list-style-type: none"> • The facilitation of thinking-, reasoning and problem solving skills focus on active participation, collaboration and cooperation of all role players. • Linking theoretical knowledge to nursing practice and vice versa by means of case studies, experiences, narratives and simulation. The real clinical setting serves as valuable opportunity for nursing students to employ their newly acquired skills to the needs of patients. • Critical thinking-, reasoning and problem solving skills are stimulated by problem-based scenarios to be analysed, debated, synthesised and motivated in small groups. Allocating different roles (skeptic, supporter, devil's advocate) to group members discourages students from settling on the first reasonable solution. • Encourage group activities to stimulate interaction and collaboration with peers where points of view and interpretations can be compared, and misunderstandings and errors can be utilised as learning opportunities. • Encourage students to come prepared to the contact session to be able to contribute meaningfully to discussions and debates. Pre-class written assignments, quizzes or short class tests are useful in this regard. • The practice of concept mapping demonstrates a student's thinking skills and processing of information. The use of concept maps is an effective way to evaluate students' ability to integrate theory and practice as well as his/her competence in clinical judgement. 	<ul style="list-style-type: none"> ✚ Yoo and Park (2014) ✚ Gerdeman <i>et al.</i> (2013) ✚ Frith and Clark (2013) ✚ Alfaro-LeFevre (2012) ✚ Potgieter (2012) ✚ Thomas <i>et al.</i> (2012) ✚ Tang and Chow (2007) ✚ Bruce <i>et al.</i> (2011) ✚ Bland <i>et al.</i> (2011) ✚ Guhde (2010) ✚ Thompson and Dowding (2009) ✚ Quinn and Hughes (2009) ✚ Waldo and Hermanns (2009) ✚ Billings and Halstead (2009) ✚ Nielsen (2009) ✚ Duffy (2009)

- Refrain from allowing one “correct” answer per question. Utilise multiple viewpoints to “twist” the discussion with questions such as “what if?”, “why?”, “how?” Questioning should be non-threatening, and students should be motivated to “think aloud” (verbal thinking), reflect-in-action in order to recognise fallacies, assumptions and misunderstandings and have them corrected by feedback from peers/facilitator.
- Reflective journal writing allow students to record critical incidents as they experience them to be later analysed, evaluated (reflection-on-action) and synthesised into a learning experience.
- Electronic media provide opportunities for media blogs; simulated case studies to be completed on-line to reflect a student’s knowledge, thinking and reasoning skills, as well as his/her decision-making skills.
- Debates enhance the construction of logical arguments, and inductive and deductive reasoning skills allow identification of relationships, oral defence of propositions, recognition of assumptions and evidence.
- Role plays provide opportunities for students to identify with emotions, challenges regarding behaviour and decisions to be made in acting out a simulated scenario. The discussion following the role play allows analysis, clarification of actions and decisions, evaluation and feedback on interpersonal and problem solving skills. Observation skills can be enhanced.

- ✚ Kelly (2009)
- ✚ Klopper (2009)
- ✚ Malesela (2009)
- ✚ Lasater & Nielsen (2009)
- ✚ Lauver, West, Campbell, Harrold and Wood (2009)
- ✚ Banning (2008)
- ✚ Lombard and Grosser (2008)
- ✚ Maskey (2008)
- ✚ Facione and Facione (2008)
- ✚ Higgs *et al.* (2008)
- ✚ Caputi and Blach (2008)
- ✚ Duffy (2008)
- ✚ Williams *et al.* (2008)
- ✚ Lasater (2007)
- ✚ Distler (2007)
- ✚ Nielsen & Stragnell (2007)
- ✚ Nurses as Teachers (2007)
- ✚ Popil (2007)
- ✚ Carless (2007)
- ✚ Banning (2006)

	<ul style="list-style-type: none"> ✚ Gul and Boman (2006) ✚ Walsh and Seldomridge (2006b) ✚ Brunt (2005b) ✚ Boud and Falchikov (2005) ✚ Rhodes and Curran (2005) ✚ Su, Osisek and Starnes (2005) ✚ Facione (2005) ✚ Pesut (2004) ✚ Gibbs & Simpson (2004) ✚ Oermann, Truesdell and Ziolkowski (2000)
Strategic objective 3: The accommodation of students' individuality and diversity of learning needs and styles	Literature support
Actions: <ul style="list-style-type: none"> • Recognition of and respect for individual differences, talents, pace and methods of learning. • Get to know role players by being interested in each other's uniqueness, dreams and concerns; value individual ideas and contributions to encourage a spirit of teamwork and belonging, learn from each other. 	<ul style="list-style-type: none"> ✚ Frith and Clark (2013) ✚ Kantar (2013) ✚ Alfaro-LeFevre (2012) ✚ De Swart <i>et al.</i> (2012) ✚ Bos <i>et al.</i> (2011)

- Practice open communication. Listening allows discovering concerns and misunderstandings, and clarification of meanings.
 - Acknowledge own limitations; refrain from an attitude of being an expert, embrace the principle of life-long learning.
 - Set clear and fair expectations, consistence in assessment and discipline based on sound interpersonal relationships.
 - Encourage students to set their own goals, and to provide guidance and support in their quest for achievement. Appraise progress.
 - Encourage dialogue, reflection and questions; refrain from giving answers, facilitate reasoning skills to come to acceptable, logical conclusions; encourage inquisitive minds and the development of interpretive, analytical, evaluative, inferential and explanatory skills.
 - Recognise students' uncertainty and anxiety in unfamiliar situations; provide assistance, support and reassurance, withdraw progressively as their confidence increases.
 - Establish a climate of mutual respect and trust that allows students to discover, explore and offer opinions in an emotionally safe environment.
- Encourage self-evaluation as a strategy for “internal development and self-regulation.” Students learn to direct their learning on their own – mainly through learning from others and from trial and error.

- ✚ Papastavrou, Lambrinou, Tsangari, Saarikoski and Leino-Kilpi (2010)
- ✚ Pinnock, Sharif, Hawke, Henning and Jones (2011)
- ✚ Moscaritolo (2009)
- ✚ Williams *et al.* (2008)
- ✚ Duffy (2008)
- ✚ Klopper (2009)
- ✚ McBrien (2007)
- ✚ Baxter (2007)
- ✚ Distler (2007)
- ✚ Carless (2007)
- ✚ Lasater (2007)
- ✚ Slabbert and Gouws (2006)
- ✚ Kuiper (2005)
- ✚ Boud and Falchikov (2005)
- ✚ Gibbs and Simpson (2004)
- ✚ Burton (2000)
- ✚ Barr and Tagg (1995)

Strategic objective 4: The facilitation of role players’ active participation and accountability for learning to achieve fusion of theory and practice	Literature support
<p>Actions:</p> <ul style="list-style-type: none"> • Facilitate a safe, open, non-threatening environment to enhance active participation. • Engage role players in setting goals, guidelines and rules of engagement as parameters for accompaniment. • Promote learning opportunities for all role players (further studies, in-service education sessions, on-the-spot teaching, in-house research); provide opportunities to share and disseminate newly acquired knowledge and insight. • Arrange workshops for professional nurses in clinical practice to enhance academic knowledge and exposure of educators to clinical procedures to facilitate competence and ease the integration of theory and practice. • Regular meetings to enhance interaction and cooperation between educators, clinical facilitators and professional nurses in the wards who act as facilitators in the clinical practice to ensure that students receive maximum clinical exposure. • Cooperation between accompanists ensures a “united front” in the execution of prescribed rules and disciplinary measures within the professional- and ethical-legal parameters. • Encourage continuous self-assessment, peer group and superior assessment and strategies for goal achievement. 	<ul style="list-style-type: none"> • Bruce <i>et al.</i> (2011) • Scully (2011) • Gerdeman <i>et al.</i> (2013) • Quinn & Hughes (2009) • Rolfe (2008) • Clynes & Raftery (2008) • Tang & Chow (2007) • Lasater (2007) • Billings & Kowalski (2006) • Uys & Meyer (2005) • Wheeler & Collins (2003) • Van der Horst & McDonald (2003) • Landers (2001) • Davhana-Maselesele (2000)

<ul style="list-style-type: none"> • Allocate students to specific professional nurses for accompaniment on a rotational basis and the strengthening of partnerships. Feedback per written report and post-conference debriefing to address concerns and suggestions for improvement. • Recognition and utilisation of role players' specific academic and clinical strengths. 	
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RECOMMENDATIONS AND CONCLUSION

The following recommendations, with special reference to nursing education, nursing practice and nursing research, are based on the findings of this study and should enhance the development of clinical judgement in undergraduate nursing students.

Recommendations for Nursing Practice

This research indicates the need for role models and continuous guidance and support for nursing students in the clinical learning environment to facilitate the integration (fusion) of theory and practice to come to clinical judgement. The recommended teaching-learning strategy, if implemented, should improve students' critical thinking and clinical judgement:

- Appointed learning facilitators need to be clinically experienced and skilled with a good knowledge base.
- Nurse educators, preceptors, facilitators and ward sisters need to collaborate and function as a team to integrate theory and practice.
- Educators need to avail themselves to the clinical practice environment to ensure quality accompaniment and guidance on a continuous basis to ease theory and practice integration and eliminate the assumption that nursing theory and practice are separate entities.
- All role players in the teaching-learning of nursing students should be actively involved and committed to the facilitation of clinical judgement as a central aspect in the teaching-learning process.
- All role players should continuously practice reflection and aloud thinking as demonstration to students of the clinical judgement process and the fusion of theory and practice.
- Implementation of LCJR (Lasater Clinical Judgement Rubric) as assessment rubric for the formative and summative assessment of clinical judgement.

Recommendations for Nursing Education

- Implementation of the teaching-learning strategy for the instituting of an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students in the undergraduate programme/curriculum.
- The results of this study can be disseminated by means of presentations at workshops, in-service training or as short courses.
- Innovation regarding different teaching-learning methodologies should be implemented to enhance critical thinking-, problem solving skills and accommodate the different learning needs and –styles of students.
- Students should be exposed to clinical learning experiences, accumulating in complexity for blending of knowledge acquisition and knowledge use to enhance higher order thinking skills and reflective interaction.
- Critical thinking skills and clinical judgement should be stimulated and assessed throughout the learning process.
- Implementation of LCJR (Lasater Clinical Judgement Rubric) as assessment rubric for the formative and summative assessment of clinical judgement.

Recommended Nursing Research

- Investigation of the appropriateness of the teaching-learning strategies to enhance critical thinking in undergraduate nursing students.

Limitations of the study

The following limitations were identified:

- This study developed a teaching-learning strategy for establishing an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students, but was challenged by the space limitations (7000 words) of the article format.

CONCLUSION

This article proposed a teaching-learning strategy for the creation of an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students based on a conceptual framework derived from concepts selected from the first two phases of the

research. The study revealed the complexity of theory-practice integration, clinical accompaniment, supervision and reflection as essential elements in the facilitation of clinical judgement in the nursing environment. The recommendations should enhance the learning opportunities and experiences for undergraduate nursing students' development of thinking skills, attributes and knowledge in the clinical learning environment (**nursing practice**), nursing education (**theory**) and the interactions of the role players involved in the teaching-learning situation.

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SECTION THREE
**EVALUATION OF THE RESEARCH STUDY,
LIMITATIONS AND RECOMMENDATIONS**



EVALUATION OF THE RESEARCH STUDY, LIMITATIONS AND RECOMMENDATIONS

1. Introduction

This research study followed the article format. Section 1 provided an overview to familiarise the reader with the introduction and background of the research. The research as such (section 2) was reported in three manuscripts, of which each manuscript reported on a phase of the study. All three manuscripts were submitted to a nursing journal for publication. Section 3 concludes the study with the researcher's retrospective evaluation of the study, discussion of its limitations and recommendations for implementation and future research..

2. Critical reflection on the research study

The overall aim of this research study was to synthesise a teaching-learning strategy for the development of an enabling teaching-learning environment to promote clinical judgement in undergraduate nursing students within the South African nursing environment. The ethical considerations for the research study and universal standards for trustworthiness, validity and reliability were discussed. The study followed an explorative, descriptive and contextual qualitative research design.

The significance of this study lies in the fact that it is the first South African study to synthesise a connotative (theoretical) definition of clinical judgement specific to the nursing environment. The concept analysis contributes to a better understanding of clinical judgement in nursing and demonstrates its importance as cognitive skill in the nursing environment. Competence in clinical judgement should promote autonomous and accountable nursing care because it is an essential component of professional competence. The acceptance and implementation of the proposed strategy by nurse leaders and nurse educators should support undergraduate nursing students to develop and implement clinical judgement skills and will thus contribute to the quality of health care in South Africa.

2.1 The research questions for this research were the following:

- What is the meaning of the concept clinical judgement within the South African nursing environment?
- What are the empirical referents involved in the concept clinical judgement?
- Which factors influence the development of clinical judgement within the nursing environment?
- Which constructs are needed for a conceptual framework to develop a teaching-learning strategy to enhance clinical judgement in undergraduate nursing students within the South African nursing environment?
- How can a teaching-learning strategy to facilitate clinical judgement in undergraduate nursing students within the South African nursing environment, be developed?

2.2 The central theoretical statement set for this study has been validated.

Clarity on the meaning of the concept clinical judgement within the South African nursing environment should facilitate the construction of a conceptual framework for the development of a teaching-learning strategy to empower undergraduate nursing students to develop clinical judgement that can be applied in the nursing environment to facilitate informed decision-making.

2.3 The objectives for this research study realised in three manuscripts; one phase of the research per manuscript.

2.3.1 Objectives set for phase 1 (manuscript 1)

- To explore and describe clinical judgement as a concept within the South African clinical environment.

- To explore and describe the empirical referents of clinical judgement in order to construct a denotative (operational) definition.

To realise the objectives for phase 1 (manuscript 1), an extensive literature search included South African journal databases (SAePublications), international journal databases, EBSCOhost, Medline, Soclindex, Academic Search Premier, CINHALL, PsycINFO, Scienand, Google Scholar, books, dictionaries, thesauri, journals, theses and dissertations from the North-West University library and inter-library loans, as well as the World Wide Web. All sources in which the term clinical judgement/clinical judgment emerged⁴ (see footnote) were scrutinised (Articles N=13 117; dissertations N=347 and books N=146; N=154 dictionary/encyclopaedia). A concept analysis was performed using the method of concept analysis described by Walker and Avant (2011:160). The concept clinical judgement was broken down and dissected into its most basic elements through an *inductive* reasoning approach to identify its unique defining characteristics (attributes/connotations) and the exact meaning, resulting in a connotative (theoretical) definition of the concept.

The literature that was explored, interpreted and integrated for the purpose of this study clearly revealed that clinical judgement is a challenging concept and not easy to define. The multi-dimensionality of the concept was evident, but the potential gains of understanding the concept and its theoretical and practical importance made it a worthwhile choice for the research.

Literature drawn from dictionaries, encyclopedias and thesauri within the disciplines of nursing, psychology and medicine were used in the concept analysis process. These sources were searched using the keyword ‘clinical judgement or clinical judgment’. The second stage included a multistage search and the World Wide Web, books, theses, dissertations and journals to confirm the findings of the concept analysis. Despite the importance of clinical judgement in health care delivery, a lack of attention and literature in the South African context became evident. A great deal has been written about clinical judgement

⁴ “ British English/South African English” spelling of clinical judggement refers also to non-legal judgement and clinical judgment (without the e) refers to “American English” spelling and legal judgment

internationally, but it stands to reason that the findings are not necessarily transferable to the South African health context. A concept analysis on clinical judgement gave clarity on the meaning of the concept and conceptualised clinical judgement in health care as follows:

Standard dictionary definitions provided a starting point. According to the Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing and Allied Health (2003), clinical judgement is the process through which the nurse decides on data to be collected about a client, makes an interpretation of the data, arrives at a nursing diagnosis and identifies appropriate nursing actions. This involves problem solving, decision-making and critical thinking skills.

Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing and Allied Health (2003) as supported by Mosby's Medical, Nursing and Allied Health Dictionary (1998) and Mosby's Medical Dictionary for the Health Professions and Nursing (2012) accentuate critical decisions made on the basis of scientific observations with the added skill provided by experience of similar cases. Added to this, the concept includes an instinctive ability to make balanced judgments, based not only on the state of the patient and his/her anticipated future, but also on consideration for the patient's overall well-being, financial well-being and degree of psychological status. The Medical Dictionary for Health Professionals and Nursing (2012) supported by Sque *et al.* (2009:236) indicate that a cognitive or thinking process is used for analysing data-deriving diagnosis, deciding on diagnosis and evaluating care. The application of information is based on actual observation of a patient, combined with laboratory findings and the health care workers' training and experience in determining a diagnosis. Mosby's Medical Dictionary for the Health Professions and Nursing (2012) highlights the ability to recognise the relationship between ideas and the ability to reach correct conclusions from data, as well as from experience.

Reviewing the sourced literature revealed the defining attributes of clinical judgement, and according Walker and Avant (2011:160), the heart of concept analysis. The most often cited author related to clinical judgement, Christine Tanner (2006), indicates a flexible and nuanced ability to recognise salient aspects of an undefined clinical situation, interpret their meanings and using patho-physiological and diagnostic aspects of a patient's clinical presentation of disease and illness experience (Tanner, 2006b:204). Tanner (2006b:208) further indicates four

dimensions of clinical judgement, namely noticing, interpreting, responding and reflecting. The level of a nurse's ability to engage in effective noticing varies with the context, the nurse's background and the nurse's relationship with the patient. Clinical reasoning and clinical judgement are reciprocal and clinical reasoning informs judgement, which informs reasoning, while critical thinking is foundational to both. The use of the intellect is also confirmed by Le Grant Robbert, as cited in Phaneuf (2008:1). Tanner further describes clinical judgement as an interpretation or conclusion about a patient's needs, concerns or health problems and/or the decision to take action (or not), use or modify standard approaches or compromise new ones as deemed appropriate by the patient's response and as a flexible and distinct ability to recognise salient aspects of an undefined clinical situation, to interpret their meanings, and to respond appropriately (Tanner, 2006b:204). Nissen (1884:132) highlights the moral dimension as the nurse must try to place herself in the patient's shoes.

An important, but unexpected finding was that none of the literature reviewed for this study mentions the nurse practitioner's relationship and engagement with his/her patient in the clinical context. Only nurses' beliefs were identified as attributes. This relationship with the patient, as mentioned by Phaneuf (2008) and Tanner (2006a:100), is of the outmost importance for engagement with the patient and his family. It allows for observation and assessment. Effective clinical judgement thus rests on engaging with the patient and the knowledge of his pattern of responses. It can therefore be listed as a shortcoming of the theoretical definition formulated in this research. The theoretical definition reads as follows:

‘Clinical judgement is the conclusion at which a nurse arrives through the ability to recognise salient pieces of information gathered by direct observation and patient assessment within an undefined clinical context. Interpretation of meaning is followed by a period of reflection and reasoning over time to come to a clinical grasp/informed opinion of the situation. Appropriate response to the identified salient aspects is based on empirical knowledge, shaped by the nurse’s clinical experience, intuition and ethical- moral beliefs to solve the patient’s nursing care problems as outcome’.

2.3.2 Objectives set for phase 2 (manuscript 2)

- To explore and describe professional nurses’ understanding of clinical judgement.
- To explore and describe factors influencing the development of undergraduate nurses’ clinical judgement within the nursing environment.

In an effort to realise the objectives for phase 2 (manuscript 2), focus group interviews (according to the World Cafe method) were conducted with professional nurses in clinical practice at institutions where undergraduate nursing students are placed for clinical experience. The aim was to verify the meaning, characteristics and process of clinical judgement as derived from the concept analysis done in phase 1 (manuscript 1), of this study. At the same time, the professional nurses’ opinions regarding factors influencing the development of undergraduate nursing students’ clinical judgement were explored and described.

The participants’ responses regarding the meaning of clinical judgement were categorised into sub-themes according to the four dimensions of Tanner's Clinical Judgment Model: effective noticing, effective interpretation, appropriate response and effective reflection (Tanner, 2006).

The participants verbalised a basic and simplistic understanding of the concept of clinical judgement in nursing. It seems as if clinical judgement is confused with good nursing care. The understanding of the relationship between a sound knowledge base, reasoning and critical thinking skills and its impact on effective interpretation, and ultimately decision making, seems to be insufficient.

The nursing practice is facing a multitude of issues that contribute to either a positive or dysfunctional learning environment and to the facilitation or lack of facilitation of clinical judgement in undergraduate nursing students. The results from focus group interviews with professional nurses indicated that the clinical nursing environment currently is not conducive to the nurturing of nursing students' clinical judgement due to:

- Inadequate clinical accompaniment due to staff shortages, insufficient role models, and the lack of motivation, knowledge and confidence among professional nurses for the task.
- The gap between theory and practice hampers critical thinking, an essential skill needed for clinical judgement.
- The large intake of first year nursing students is an obstacle for the clinical placement of nursing students to give them maximum exposure to appropriate learning opportunities.
- Nursing students are used as a workforce to fill the gap in understaffed units, resulting in limited learning opportunities and a lack of guidance by experienced practitioners.
- Stressed interpersonal relationships and inadequate communication are obstacles for trust and confidence to seek clarity and share understanding.

2.3.3 Objectives set for phase 3 (manuscript 3)

- To describe a conceptual framework for an enabling learning environment to facilitate clinical judgement from a modern day constructivist approach within the South African nursing environment.

- To construct a diagrammatic presentation of the conceptual framework for an enabling learning environment to facilitate clinical judgement from a modern day constructivist approach within the South African nursing environment.
- To synthesise a teaching-learning strategy for the creation of an enabling teaching-learning environment to facilitate clinical judgement from a modern day constructivist approach in undergraduate nursing students within the South African nursing environment.

To realise the objectives for phase 3 (manuscript 3), the conclusions from phase 1 (manuscript 1-concept analysis) and phase 2 (manuscript 2- professional nurses' understanding of clinical judgement and factors influencing the development of clinical judgement in undergraduate nursing students) served as basis to identify the central concepts for a conceptual framework. The identified concepts was explained and aligned in new relationships to form the conceptual framework (see Figure 1: phase 3-manuscript 3). The conceptual framework describes an enabling learning environment to facilitate clinical judgement from a modern day constructivist approach. The conceptual framework served again as basis to synthesise a teaching-learning strategy to create an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students.

The strategic process comprises a long-term goal or aim in line with the vision set for an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students. Four (4) strategic objectives were formulated through deductive logic derived from the seven (7) needs/problems identified during the focus group interview of data collection (World Café method). The strategic objectives were to:

- Facilitate responsive learning experiences for the development of clinical judgement through accompaniment, supervision and role modelling based on constructivist principles;
- Apply a variety of teaching-learning methods to promote thinking-, reasoning- and problem solving skills;
- Accommodate the uniqueness and diversity of students learning needs and -styles;

- Facilitate role players' active participation and accountability for learning to achieve fusion of theory and practice.

The strategic objectives served as the basis for a more specific short term action plan to achieve the aim of this study: a teaching-learning strategy to create an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students. The aim of this research has been reached.

3. LIMITATIONS OF THE RESEARCH STUDY

The limitations of the research study relate to the contextual aspect of the research setting and some methodological and professional considerations.

The following limitations were identified:

- Due to the word restriction applicable for the manuscripts (7000 words), the literature review included studies conducted between 1980 and 2013 and only 34 definitions (50 characteristics) were selected. This could be limiting, more definitions could add richness to the identified attributes and the theoretical definition.
- Use of the internet encyclopaedic resource, Wikipedia, may be seen as a limitation, but the fact that it validated and enriched the identified characteristics of clinical judgement justified its inclusion in the concept analysis process.
- None of the uses/definitions of clinical judgement reviewed for this study mentioned the aspect of nurse practitioner relationship and engagement with his/her patient and the clinical context. This relationship for engagement is of the utmost importance in the observation and assessment of a patient. It can therefore be listed as shortcoming in the theoretical definition formulated from this research.
- This study investigated professional nurses' understanding of clinical judgement in hospital settings and to a lesser degree in primary health care settings. Limited voluntary participation of primary health care nurses due to a high work load and skeleton staff in these facilities may be a limitation to the study. Only eleven (11)

professional nurses participated voluntarily in the research. Other important information could possibly have been obtained if more professional nurses, such as more participants from primary health care settings, participated in the research. Although the results of this research are contextual, it nonetheless provides food for thought.

4. RECOMMENDATIONS

This research was undertaken to promote decision-making and quality nursing care and to promote accountability for nursing care. The proposed guidelines and strategy are recommended as framework. The following recommendations are made for consideration by the relevant authorities.

4.1 Recommendations for Nursing Practice

- The importance of competence in the clinical judgement in nursing should be accentuated in all levels of nursing. In-service education on the nature, implementation and facilitation of clinical judgement as professional competence should enable nurse practitioners to embrace clinical judgement as problem solving skill to improve patient care and service delivery.
- The importance of role modelling is part of every nurse's professional obligation and its impact on professional socialisation should be emphasised and actively promoted.

The following recommendations, if implemented in the clinical nursing environment, should contribute towards the development of nursing students' clinical judgement:

4.1.1 Role players in clinical accompaniment of nursing students

- Clinical nurse educators need to be clinically experienced and skilled in scientifically founded nursing skills.
- Role players in the accompaniment of nursing students should collaborate and function as team to facilitate the integration of nursing theory and -practice.

- Nurse educators need to be clinically competent and avail themselves to the clinical practice to ensure clinical accompaniment and guidance on a continuous basis of especially first year nursing students.
- All role players in the teaching-learning of nursing students should be actively involved in the clinical environment to find solutions for mutually experienced problems relating to clinical accompaniment.
- Role players in the accompaniment of nursing students should create opportunities for interaction and reflection to stimulate the fusion of nursing theory and practice and facilitate the development of clinical judgement.
- The appointment of an experienced, clinically skilled and committed clinical preceptor per clinical facility should be considered.

4.1.2 Student placement

- Criteria for nursing students' clinical placement should be drafted and implemented based on safety, learning opportunities, available infrastructure, resources, role modelling and support. Feedback from students should be attended to.
- Nursing students should be allocated to a specific discipline for a reasonable period of time to participate as member of the multi-professional team for maximum exposure to learning opportunities and the development of clinical judgement skills.
- The allocation of nursing students per clinical area should be controlled and monitored to avoid overcrowding, maximise learning and to ease accompaniment and facilitation of learning.

4.2 Recommendations for Nursing Education

- Implementation of the teaching-learning strategy in the School of Nursing Science, where the researcher is currently employed as lecturer.
- Presentations of this teaching-learning strategy at nursing education conferences.

- The results of this research should be disseminated to other nursing education institutions by means of presentations of workshops, in-service training or short courses for CPD points.
- The process and skill of clinical judgement should be incorporated as a central aspect in the teaching-learning process, including assessment.
- Varying teaching methodologies should be implemented to facilitate nursing students' thinking- and problem solving skills.
- Facilitation of reflective practices using Tanner's (2006) Clinical Judgement model.
- Implementation of LCJR (Lasater Clinical Judgement Rubric) (Lasater, 2007) as assessment rubric for summative assessment of clinical judgement.
- Nursing students should be exposed to clinical learning experiences that increase in complexity for the blending of knowledge acquisition and knowledge use to enhance higher order thinking skills.
- The findings of this study can be used to educate nursing students on the cyclical cognitive thought process, which includes clinical reasoning, critical thinking, problem solving and clinical decision-making.
- The inclusion of clinical judgement as professional competence in the curriculum for prospective nurse educators.

4.3 Recommendations for further research

- Development of instruments for assessment of clinical judgement.
- Investigation of students' perspective on clinical judgement.
- Investigation of the relationship between clinical guidance and clinical judgement.
- Evaluation of the outcome of the teaching-learning strategy after implementation.

- Investigation of the appropriateness of the teaching-learning strategies to enhance critical thinking in undergraduate nursing students as part of a SoTL project.

5. PERSONAL REFLECTION

I enjoyed this research study and learned a lot, even though the path I followed was sometimes littered with obstacles. The article model chosen for reporting the research proved challenging because the word restriction for the manuscripts were difficult to adhere to (a maximum of 7000 words, excluding abstracts, tables and figures and references). As researcher, I was challenged by transferring the essence of the research and letting go of some of the information. Despite the challenges, I was blessed with an inspiring learning opportunity and guidance to reach the objectives of this research and develop this teaching-learning strategy to empower undergraduate students in my role as nurse educator to facilitate clinical judgement.


This research challenged me as nurse educator to critically reflect on my competency in clinical judgement and in my role as accompanist to guide students towards clinical judgement. My passion for nursing has deepened and I hope that this research proves to be useful and makes a difference in the thinking, reasoning and clinical judgement skills of undergraduate students as the future professional nurses of South Africa.

6. FINAL CONCLUSION

The objectives set in this research have been reached. Clarifying the concept of clinical judgement within the clinical nursing environment was not easy because of the multiple facets of the concept within the nursing environment. The method of concept analysis offers a substantial contribution to continuing productive activity in this regard. Through further triangulation of data, nursing education may be able to develop a strong conceptual foundation to enhance efforts towards the continuing development of knowledge in nursing and the achievement of its goals.

The concept of clinical judgement is a very important skill in the clinical decision-making process and can promote nursing care delivery in South Africa. This study revealed the

complexity of theory-practice integration, clinical accompaniment, supervision and reflection as essential elements in the facilitation of clinical judgement in the nursing environment. The recommendations should enrich nursing students' learning experiences in the classroom and the clinical practice environment.



**"Teaching is more than imparting knowledge, it is inspiring change.
Learning is more than absorbing facts, it is acquiring
understanding."**

- William Arthur Ward





BIBLIOGRAPHY: OVERVIEW OF THE STUDY



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ANNEXURES



ANNEXURE A:

ETHICAL APPROVAL OF THE STUDY



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Web: <http://www.nwu.ac.za>

To whom it may concern

Faculty of Health Sciences
Tel: 018-299 2092
Fax: 018-299 2088
Email: Minrie.Greeff@nwu.ac.za

10 October 2013

Dear Prof. Koen

Ethic Application: NWU-00107-13-S1 "Clinical Judgement in nursing: A teaching-learning strategy for South African undergraduate nursing students"

Thank you for the amendments made to your application. All ethical concerns have been addressed and approval is granted.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Minrie Greeff'.

Prof. Minrie Greeff
Ethics Sub-committee Vice Chairperson

Original details: Prof. Minrie Greeff(10187308) C:\Users\13210572\Documents\ETIEK\2013 ETHICS\NWU-00107-13-S1b.docm
10 October 2013

File reference: NWU-00107-13-S1

ANNEXURE B:

LETTER OF APPROVAL FROM DEPARTMENT OF HEALTH



health
Department of
Health
North West Province
REPUBLIC OF SOUTH AFRICA

2ND Floor Tirelo Building
Dr. Albert Luthuli Drive
Mafikeng, 2745
Private Bag X2068
MMABATHO, 2735

Tel: (018) 387 1786
Fax: 018 392 6710
kshogwe@nwpg.gov.za
www.nwhealth.gov.za

POLICY, PLANNING, RESEARCH, MONITORING AND EVALUATION

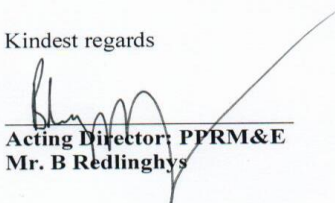
To : Ms Van Graan Anna Catharina
From : Policy, Planning, Research, Monitoring & Evaluation
Subject : Approval Letter- Clinical judgement in nursing: A teaching learning strategy for South African undergraduate nursing students.

Purpose

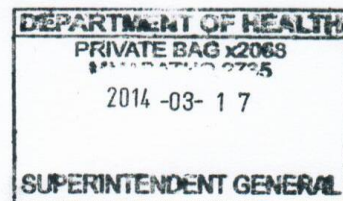
To inform the researcher that permission to undertake the above mentioned study has been granted by the North West Department of Health. The researcher is expected to arrange in advance with the chosen districts or facilities, and issue this letter as prove that permission has been granted by the provincial office.

Upon completion, the department expects to receive a final research report from the researcher.

Kindest regards


Acting Director: PPRM&E
Mr. B Redlinghys


Date




Healthy Living for All

1

ANNEXURE C: THE “WORLD CAFÉ” COPYRIGHT



“Give, give, give - What is the point of having experience, knowledge or talent if I don't give it away? Of having stories if I don't tell them to others? Of having wealth if I don't share it? I don't intend to be cremated with any of it! It is in giving that I connect with others, with the world and with the divine.”~
Isabel Allende

Copyright and Use Policies for the “World Café” Name, Logo, Method, and Materials

Thank you for your responsible and ethical use of the “World Café” name, logo, and materials. The free resources, materials, and information on the website are all made available under a Creative Commons Attribution3 license, unless they are individually copyrighted by the author (which will be clear in context). The Creative Commons Attribution license means you are free to copy, distribute, and transmit information if you formally acknowledge and attribute all such use with a link to our website: <http://www.theworldcafe.com>. If material is individually copyrighted, please respect the author's rights. The “World Café” name and logo are protected under international copyright law. Please do not use the name "World Café" as part of a formal organizational name, product, or service. You are welcome to use the term "World Café" to describe an event you are convening (e.g., "A Main Street USA World Café"). If you do this, you must acknowledge the “World Café” Community Foundation as the source of the name and method by including a link to our website: <http://www.theworldcafe.com>. We do not allow the public use of our logo under any circumstances. It can only be used in conjunction with programs sponsored (or co-sponsored) by The “World Café” Community Foundation. If you make commercial use of the “World Café” principles, methodology, or materials, we ask that you make an appropriate donation to the “World Café” Community Foundation (see links to your left) in recognition of the value provided. As noted above, keep in mind that you cannot profit on the work of an individual author through sale or use of his/her copyrighted material without permission. If you have derived value from the use of the World Café, whether commercially or not, we invite you to make a tax-deductible contribution to the “World Café” Community Foundation so we can continue to develop and freely disseminate “World Café” materials to the public.

Thank you.

ANNEXURE D:

WORLD CAFÉ DESIGN PRINCIPLES



The following seven World Café design principles are an integrated set of ideas and practices that form the basis of the pattern embodied in the World Café process.

1) Set the Context

Pay attention to the reason you are bringing people together, and what you want to achieve. Knowing the purpose and parameters of your meeting enables you to consider and choose the most important elements to realize your goals: e.g. who should be part of the conversation, what themes or questions will be most pertinent, what sorts of harvest will be more useful, etc..

2) Create Hospitable Space

Café hosts around the world emphasize the power and importance of creating a hospitable space—one that feels safe and inviting. When people feel comfortable to be themselves, they do their most creative thinking, speaking, and listening. In particular, consider how your invitation and your physical set-up contribute to creating a welcoming atmosphere.

3) Explore Questions that Matter

Knowledge emerges in response to compelling questions. Find questions that are relevant to the real-life concerns of the group. Powerful questions that "travel well" help attract collective energy, insight, and action as they move throughout a system. Depending on the timeframe available and your outcomes, your Café may explore a single question or use a progressively deeper line of inquiry through several conversational rounds.

4) Encourage Everyone's Contribution

As leaders we are increasingly aware of the importance of participation, but most people don't only want to participate, they want to actively contribute to making a difference. It is important to encourage everyone in your meeting to contribute their ideas and perspectives, while also allowing anyone who wants to participate by simply listening to do so.

5) Connect Diverse Perspectives

The opportunity to move between tables, meet new people, actively contribute your thinking, and link the essence of your discoveries to ever-widening circles of thought is one of the distinguishing characteristics of the Café. As participants carry key ideas or themes to new tables, they exchange perspectives, greatly enriching the possibility for surprising new insights.

6) Listen together for Patterns and Insights

Listening is a gift we give to one another. The quality of our listening is perhaps the most important factor determining the success of a Café. Through practicing shared listening and paying attention to themes, patterns and insights, we begin to sense a connection to

the larger whole. Encourage people to listen for what is not being spoken along with what is being shared.

7) Share Collective Discoveries

Conversations held at one table reflect a pattern of wholeness that connects with the conversations at the other tables. The last phase of the Café, often called the "harvest", involves making this pattern of wholeness visible to everyone in a large group conversation. Invite a few minutes of silent reflection on the patterns, themes and deeper questions experienced in the small group conversations and call them out to share with the larger group. Make sure you have a way to capture the harvest - working with a [graphic recorder](#) is recommended.

For a more in-depth look at the World Café design principles, see the [World Café book](#).

ANNEXURE E: LETTER TO REQUEST PERMISSION TO CONDUCT RESEARCH

Dear Mr/Ms.

SUBJECT: PERMISSION TO CONDUCT RESEARCH AT

Attached please find the following documents with regard to the request for permission to conduct research with professional nurses as participants working at

- Information leaflet to research participants (information regarding the study with professional nurses);
- Informed consent form for research participants.

My promoter is Prof MP. Koen, from the School of Nursing Science, North-West University, Potchefstroom Campus.

This study is approved by:

- Ethical Committee of the North-West University, Potchefstroom Campus (Certificate number NWU-00107-13-S1).
- Directorate of Policy, Planning Research, Monitoring and Evaluation, Department of Health: North West Province.

Yours sincerely

Van Graan A. C (PhD candidate)

Cell phone number: 0826869659

E- mail: Anneke.VanGraan@nwu.ac.za

INFORMATION LEAFLET

Sir/ Madam

I am currently registered for the degree Doctor of Philosophy (Health Science Education) at the North-West University, Potchefstroom Campus. One of the requirements for this degree is a research project and therefore, I request permission to include professional nurses as participants ofas clinical facility into do focus group interviews as part of the project with the title.

Clinical judgement in nursing: A teaching-learning strategy for South African undergraduate nursing students

Background

The concept clinical judgement within nursing has gained increasing attention internationally over the last decades and despite its obvious importance in care delivery a lack of attention and literature in South Africa, it cannot be concluded that the findings are transferable to the South African health context. It is clear, that the complexities of the South African clinical nursing environment requires nurses to have critical thinking and problem-solving skills in order to make appropriate clinical decisions underpinned by professional competence. It can therefore be assumed that if nurses are to be credible participants in shaping the future of health care delivery and defining their role in a complex, uncertain, rapid changing health care environment, quality clinical judgement is imperative as an identified characteristic of the newly qualified professional nurse (SAQA, 2011: 4-6). This implies the need for an approach to empower undergraduate nurses for clinical judgement that represents its complexity with a focus on interaction and integration of knowledge, skills and an attitude supported by professional values. In order to truly comprehend the effect it currently has in the South African clinical nursing environment, the concept, clinical judgement, needs to be analysed and defined through a comprehensive literature exploration to construct a conceptual framework. The concept, clinical judgement will then validated by triangulation from results of focus group interviews with professional nurses. The conceptual map will be refined as outcome. From this framework, a teaching-learning strategy will be developed to facilitate clinical judgement in undergraduate nursing students, empowering them to think

critically and make clinically sound decisions to develop from novice to expert within the South African clinical nursing environment.

The research objectives for this study are:

- To explore and describe the meaning of clinical judgement;
- To explore and describe the characteristics of clinical judgement;
- To explore and describe the factors that had an influence on clinical judgement with in the South African clinical nursing environment;
- To explore and describe the process to come to clinical judgement.

Research approach and method

An explorative and descriptive qualitative design was followed, as an understanding of clinical judgement was sought in this study.

The target population for phase 2 of this study is clinical experts (professional nurses with at least 3 years clinical experience) working at primary health care clinics, public and private hospitals in the Matlosana and Tlokwe sub-districts of the Kenneth Kaunda district, North-West province where undergraduate nursing students are placed during practice for role taking and this was convenient for the researcher residing in the area. The facilities included were two general hospitals from the public sector and two private hospitals and four primary health care clinics catering for primary health care needs of the community.

The study sample will comprise of professional nurses who comply with the following inclusion criteria:

- Professional nurses who have at least 3 years clinical experience.
- Professional Nurses working in the identified clinical environments.
- Professional Nurses who are willing to give voluntary, written informed consent to participate in this research.
- Professional Nurses able to communicate in English.
- Professional Nurses who give consent to have interviews recorded on an audiotape.

The researcher conducts a qualitative research study and plans to collect data through the use of the “World Café” method. The World Café methodology is appropriate as it is a simple, effective, and flexible format for hosting large group dialogue and to collect a large quantity of rich data within a short period of time is a living network of conversations used for leading




collaborative dialogue, sharing knowledge and creating possibilities for action in groups of 5-6 professional nurses around questions as indicated. (<http://www.theworldcafe.com/method.html>). Brown *et al.* (2005:2) accentuate the “World Café” as a brainstorming tool that generates ideas and comments about clinical judgement as specific topic in this research.

The World Café process will entail:

- ✚ The interview will take place in a private room set up as a café to assure a comfortable relaxed atmosphere.
- ✚ There will be 5-7 tables with 6 -8 chairs each.
- ✚ On each table will be a poster with each question, paper, coloured pens and refreshments.

Your participation will include:

- ✚ At least 3-4 professional nurses working within each clinical facility. Groups will be mixed with professional nurses from different clinical facilities.
- ✚ Participants will sit up to 6 at a table and have 4 conversational rounds lasting 15 minutes about a specific discussion question.
- ✚ The focus group interview will be arranged in time with the participants, conducted at the NWU, Potchefstroom Campus and will last for about 90 minutes.
- ✚ **Transport** will be available between the NWU and the clinical facility.
- ✚ The focus groups will be facilitated by a person with experience in focus group interviews.
- ✚ The focus group interviews will be recorded for transcription purposes to ease the data analysis process and as record of the data collection.
- ✚ No names will be used during the interview only by number.
- ✚ Your names or identity of the facilities will neither be on the voice recorder, in the research report or publication.
- ✚ You will not be expected to share any information you may not feel to share.
- ✚ Data will be kept in a safe place by the researcher for confidentiality, only the researcher and the co- coder have access to the raw data.

-  Your **participation in this study is totally voluntary**; you can stop or withdraw your participation at any stage without any consequences to you. It will however be appreciated if you participate for the duration of the interview.
-  The researcher expects no risks and that emotional discomfort or inconvenience will be minor. You do not have to answer any question, if you do not wish to do so. If any discomfort occurs, you may discontinue your participation immediately and de breathing support will be available.
-  **There will not be any incentive provided to take part in the research or also no cost to you as participant, as transport will be available to and from the clinical facility. Refreshments will be provided during the interviews as well as a surprise gift of appreciation.**

You are kindly requested, if you as facility agree to participate, to notify the researcher by sms or e-mail to the above address.

Should you prefer met to address the professional nurses in person or have any questions concerning the study, please feel free to contact me at cell phone number 0826869659 or per e-mail at Anneke.VanGraan@nwu.ac.za.

The focus group interviews will take place at Building 7b Office G31 at NWU on Wednesday 16 April 2014 Professional nurses will be picked up at the front entrance of the facility at 8h00 to start at 09h00.

Participants need to sign the attached form to confirm that they are willing to participate in this study prior the start of the focus group interviews at the NWU.

Thanking you in anticipation to your participation.

Van Graan Anna C. (PhD candidate)

Cell phone number: 0826869659

E- mail: Anneke.VanGraan@nwu.ac.za

ANNEXURE F:

CONSENT TO BE A RESEARCH PARTICIPANT

Clinical judgement in nursing: A teaching-learning strategy for South African undergraduate nursing students

CONSENT TO BE A RESEARCH PARTICIPANT

I am Anna Catharina van Graan (student no 10197869) from the North-West University working on a research study in (Health Science Education) with title: Clinical judgement in nursing: A teaching-learning strategy for South African undergraduate nursing students and we would like to invite you to give consent and participate in the research. To follow is information about the study so that you can make an informed decision.

PURPOSE OF THE STUDY

The purpose of this study is to explore and identify factors influencing the non-compliance to procedural guidelines of nurses enrolled under R2175 of 19 November 1993 during their clinical practice in order to influence patient care.

You are being asked to participate in this study because as you are an enrolled nurse in the Thabo Mofutsanyana (TM) region employed at public hospitals and clinics who have undergone formal training within the previous five years (2008-2012) and have passed the progression test from enrolled nursing auxiliaries (ENA) to a enrolled nurse according to SANC and your experiences are very valuable to us.

PROCEDURE

The researcher plans to conduct a qualitative research study with at least two semi-structured focus group interviews per region that comprise at least 6 members per group as data collection method. The focus group interviews will be recorded for transcription purposes to ease the data analysis process.

If you agree to participate in this study you will expected to do:

- You have to give written consent for participation. Share your experiences regarding factors influencing compliance/ non-compliance to procedural guidelines during patient care, within semi-structured interviews. Active participation and free expression of feelings and experiences. It will take 45-60 min.

RISKS/DISCOMFORTS

Low foresee able risk – to experience emotional discomfort and mild anxiety during the interviews.

Some of your privacy might be lost during the interviews and a partial break in the trust relationship due to group discussions and the use of voice recordings, but your name/ clinical facility will never be made known and your data will be handled as confidential as possible. No individual identifiers will be used during voice recordings or in any publications resulting from this study and only the team of researchers will work with the information that you shared. All sensitive information will be protected by locking it up and storing it on a password protected computer, in a steel cabinet at the School of Nursing Science - NWU, Potchefstroom Campus.

Debriefing opportunities will be available if any discomfort occurs or you can with draw immediately form participation to the research.

BENEFITS

Improved skill in group dynamics and semi-structured focus group interviews as well as boost of self-esteem when you feel that participation enhance your personal worth as you will contribute to better health care delivery in health care facilities.

COSTS

There will be no cost to you as a result of your participation in this study.

PAYMENT

You will receive no payment for participation. transport to focus group interview meetings and a light meal for the day will be supplied by the researcher as well as a token of

appreciation per participant will be given at the end of data collection (example a flash light/ coffee mug).

QUESTIONS

You are welcome to ask any questions to a member of the research team before you decide to give consent. You are also welcome to contact Mrs D.V Msimanga if you have any further questions concerning your consent at cell 0583041264.

FEEDBACK OF FINDINGS

The findings of the research will be shared with you if you are interested as soon as it is available.

ANNEXURE G:

CONSENT TO BE A RESEARCH PARTICIPANT

**Clinical judgement in nursing: A teaching-learning strategy
for South African undergraduate nursing students**

PARTICIPATION IN THIS RESEARCH IS VOLUNTARY.

You are free to decline to be in this study, or to withdraw at any point even after you have signed the form to give consent without any consequences.

Should you be willing to participate you are requested to sign below:

I _____ hereby voluntarily consent to participate in the above mentioned study. I am not coerced in any way to participate and I understand that I can withdraw at any time should I feel uncomfortable during the study. I also understand that my name will not be disclosed to anybody who is not part of the study and that the information will be kept confidential and not linked to my name at any stage. I also understand what I might benefit from participation as well as what might be the possible risks and should I need further discussions someone will be available.

Date

Signature of the participant

Date

Signature of the person obtaining consent

ANNEXURE H:

PERMISSION GRANTED FOR RESEARCH BY HEALTH CARE FACILITIES WILMED PARK PRIVATE HOSPITAL



8 April 2014

Dear Me A van Graan

RE: PERMISSION TO CONDUCT RESEARCH

Hereby we grant permission to conduct your research at Wilmed Park Hospital involving our Registered Nurses.

We wish you the all the best with your research.

Kind regards


HS STEENKAMP
GENERAL MANAGER


L HATTINGH
NURSING SERVICES MANAGER

(018) 468 7700 • Fax: (018) 468 7718 • PO Box 7105, Flamwood, 2572, KLERKSD

MED TRADING TRUST t/a WILMED PARK PRIVATE HOSPITAL
s: MD van Tonder (Managing), M Freese (Chairman), AJ Gill, FB Pelsner, PC Piek, HS Steenkamp, JJ van Aswegen
b: IT3193/95

ANNEXURE I:

PERMISSION GRANTED FOR RESEARCH BY HEALTH CARE FACILITIES

MEDICLINIC POTCHEFSTROOM:

From: "du Toit, Rina" <rina.dutoit@mediclinic.co.za>
To: "'Anneke.VanGraan@nwu.ac.za'" <Anneke.VanGraan@nwu.ac.za>
CC: "van Aswegen, Blake" <blake.vanaswegen@mediclinic.co.za>, "Rossouw, Sanet"

<sanet.rossouw@mediclinic.co.za>

Date: 2014/03/28 03:55 PM
Subject: Permission to conduct research for PhD

Dear Me van Graan,

Thank you for your request dated 24th March 2014, to conduct your research here at Mediclinic Potchefstroom. Permission to conduct your research is granted however it is your responsibility to contact the professional nurses yourself. They will have to partake in this research during their off duty time.

You are welcome to contact our human resources department, Sanet Rossouw, to identify the professional nurses who comply with the criteria.

I trust that you find this in order.

Kind regards
Rina du Toit
Manager | Nursing
MEDICLINIC POTCHEFSTROOM

66 Meyer Street
Potchefstroom, 2531
PO Box 19901
Noordbrug, 2522
T +27 18 293 7000
F +27 86 681 1567
M +27 82 552 5265
www.mediclinic.co.za<<mailto:rina.dutoit@mediclinic.co.za>>

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ANNEXURE J (a): DECLARATION OF LANGUAGE EDITING

Manuscript 1:



Astute Editing and Research

February 2014

To Whom It May Concern

Dear Sir/Madam,

This is to certify that I have fully edited the PhD thesis of Ms Anneke van Graan entitled “CLINICAL JUDGEMENT WITHIN THE SOUTH AFRICAN CLINICAL ENVIRONMENT: A CONCEPT ANALYSIS *Health SA Gesondheid*/North-West University. The text was checked for style, clarity and ease of reading, grammar and usage, spelling and punctuation, consistency in the use of text and figures in illustrations and tables, completeness and consistency in references, consistency in page numbering, headers and footers and suggestions were offered. The editor makes no pretension to have improved the intellectual content of the thesis and did not rewrite any text. The editor’s suggestions are to be accepted or rejected by the author. The author effected the final changes him- or herself.

Yours sincerely,

C.D. Schutte (D Litt et Phil, Full Member, Professional Editors’ Group)

Telephone 012-342-3518

Mobile 083-310-1806

4 Gospel Close, 821 Church Street, Arcadia 0083, Pretoria.

ANNEXURE J (b): DECLARATION OF LANGUAGE EDITING

Language editing: Section 1- 3



Director: CME Terblanche – BA (Pol Sc), BA Hons (Eng), MA (Eng), TEFL
22 Strydom Street
Baillie Park, 2531
Tel 082 821 3083
cumlaudelanguage@gmail.com

DECLARATION OF LANGUAGE EDITING

I, Christina Maria Etrecia Terblanche, hereby declare that I edited the
article entitled:

**Clinical judgement in nursing: A teaching-learning strategy for South
African undergraduate nursing students**

for AC van Graan for the purposes of submission as a postgraduate
dissertation to the NWU. No changes were permanently affected and were
left to the discretion of the student.

Regards,

CME Terblanche

Cum Laude Language Practitioners (CC)

SATI reg nr: 1001066

PEG registered

ANNEXURE K:

WORK PROTOCOL FOR DATA ANALYSIS”WORLD CAFÉ”

Work protocol for data analysis for the focus group interviews”World Café”

Please follow the following guidelines when analysing the transcriptions of the focus group interviews” World Café”

Important notes:

Focus on the opinions of participants (words and themes) are the units of analysis. Look for statements that can be linked to the words: I/we think, I/we believe, I/we know, I/we recommend

The level of analysis: Focus on the proximity of analysis recurrent opinions (or concepts) and when effect is apparent, note that as well (e.g descriptive words, punctuation marks).

Guidelines

1. Get sence of the whole by browsing through transcriptions, asking what it is about?
2. Keep the research objectives in mind which are:
 - To explore and describe clinical judgement as a concept within the South African clinical environment.
 - To explore and describe the empirical referents of clinical judgement in order to construct a denotative (operational) definition.
 - To verify the concepts from the conceptual framework of clinical judgement within the South African clinical environment through triangulation from in depth focus group interviews with clinical experts in the North–West Province.
 - To construct a conceptual framework of clinical judgement within the South African clinical environment.
 - To analyze and describe a conceptual framework for an enabling learning environment to facilitate clinical judgement as learning from a constructivist approach.

- To synthesize a teaching-learning strategy for the instituting of an enabling teaching-learning environment to facilitate clinical judgement in undergraduate nursing students within the South African clinical environment.
3. Read through the transcriptions and carefully identify relevant phases by highlighting.
 4. Note opinions in the left margin, note own thoughts (relating to underlying meaning) affect as identifying appropriate responses in the right margin.
 5. Cluster similar opinions together to form coloums.
 6. Give descriptive names to coloums to identify as themes and sub-themes.
 7. Identify simalarities and reduce if necessary.

Please contact me if you need more information.

Regards A.C van Graan

ANNEXURE L: EXAMPLES FIELD NOTES

FIELDNOTES: DATA COLLECTION –WORLD CAFÉ METHOD

Descriptive notes:

- The data collection began at 09:00 on 16 April 2014.
- Informed consent was obtained from all participants.
- The researcher used a verbal presentation in order to welcome the participants. and get informed-written consent from participants.
- An in depth explanation of the “World Café” method was given to participants.
- Any questions from participants were answered.
- All interviews were held in Afrikaans or English as per individual preference.
- Table hosts were allocated randomly to each group.
- Groups of 4 were seated at a table.
- “World Café” started at 09:30.

Reflective notes:

Round 1: 09:30- 10:55: Question 1

- Table hosts welcomed the participants, read the question and briefly explain to write down ideas or make drawing as they like to explain their thoughts.
- All participants were actively involved.
- A positive and relaxed atmosphere prevailed.
- Participants shared ideas and discuss their clinical experiences.
- Participants were laughing loud and having a lot of fun.
- Question 1 and 2 were very similar to them however they add new ideas.
- Scheduled time for the round had to be lengthened with 7 minutes on participants’ request as they had much experiences to tell.

- Participants rotated in an orderly manner and knew what was expected from them.

Round 2: 11:00-11:30: Question 2

- Table hosts welcomed the newcomers, read the question and briefly explained the ideas already written down
- Participants started to brainstorm new ideas
- Participants were actively involved
- A nice and relaxed atmosphere prevailed
- Participants shared ideas and discuss their clinical experiences
- One participant does drawings and making notes on paper to express participants thoughts.
- Participants were laughing loud and having a lot of fun.
- Participants rotated in an orderly manner and knew what was expected from them.

Round 3: 11:35-11:50: Question 3

- Table hosts welcomed the newcomers, read the question and briefly explained the ideas already written down.
- Participants started to brainstorm new ideas.
- Participants were actively involved.
- One participant do drawings and making notes on paper to express participants thoughts.
- A relaxed, humoristic atmosphere prevailed.
- Question 3 and 4 were very similar to them however they add new ideias.
- Participants shared ideas and discuss their clinical experiences.

Round 4: 11:55-12:15: Question 4

- Table hosts welcomed the newcomers, read the question and briefly explained the ideas already written down.
- Participants started to brainstorm new ideas.
- Participants were actively involved.
- One participant does drawings and making notes to express participants thoughts.
- A relaxed, humoristic atmosphere prevailed.
- Participants shared ideas and discuss their clinical experiences.

Reflective notes and debriefing:

- **Table hosts** verbalise the positive and active, humoristic participation of participants.
- The researcher asked **participants**: “How did you experience this sessions?”
- Responses were audio recorded.
- It was fun and relaxing.
- It was a great learning opportunity.
- It was interesting to listen to other professional’s experiences.
- It was educational - like in-service training.
- We belief the information provided will be use full.

ANNEXURE M:

FOUCUS GROUP INTERVIEW (PART OF TRANSCRIPTION)

Interview 15 min/ question/ group

Introduction was done.

Interview schedule were made available\.

Informed consent was obtained.

I – Interviewer

R – Respondents

Question/Vraag 4: interview 1

I: *Okay so hierdie is nou meer spesifiek oor clinical judgement. Hoe dink julle ontwikkel 'n verpleegkundigee clinical judgement, hoe perform sy?*

R1: *Experience.*

R2: En uhm waneer hulle hier by die praktyk kan sit, wanneer hulle 'n prentjie kan maak en dit by die praktyk kan sit.

I: *Okay how do you think, what make it possible that they (students) can bring the theory and practice together?/ dink jy gebeur dit, wat maak dit moontlik dat hulle die teorie en die praktyk bymekaar kan bring?*

R2 Ek weet dat as die teorie vir hulle oorgedra word in 'n meer praktiese wyse jy weet, byvoorbeeld as jy sê 'n hartversaking die linker of die regter hart, jy sê okay regter hart versaking wat is die organe, meer praktiese ding hierdie ou gaan geswelde bene hê, 'n idee maar meer prakties as hy sy oê toemaak en hy sien 'n pasient moet hy die meer visuele beeld hê.

R2 Ja, daar moet meer visueel gedemonstreer word en nie net 'n jy weet jy moet 'n prentjie kan maak, jy weet jy moet dit kan herken nie.

R1 *It comes back to experience nê.*

R2 Ja daai ervaring en ondervinding.

R4 *I think that the education has to be given in a way that and the facilitators and the lecturers have to be knowledgeable and they have to know how to actually transfer the knowledge to the students.*

R5 Ja. Ek dink die ou wat voor die klas staan moet praktiese ervaring hê. As dit nou 'n vierdejaar is en sy doen bietjie onderwys en sy staan voor die klas wat sê praktiese voorbeeld kan sy vir die kind wees jy weet die ander studente.

R1 Ek onthou dat ek 'n dosent gehad het in my tweede jaar nê en ek sê vir jou tot vandag toe onthou ek van die goed wat sy gesê het want sy het dit net so gesê dat jy weet ek herken hierdie ding of dit is definitief soos jy sê as jy daai teorie en praktyk met mekaar kan laat trou basies nê.

R3 Hmm.

R3 Dis ons vraag? uhm ervaring dit is belangrik.

I Dankie!

R2 En jou rolmodel nê want as die persoon wat jou hand vat in daai area se kliniese *judgement* goed is gaan jy dit ook kry ek onthou die ouer sisters het gesê maak hierdie trollies al die wiele alles moet skoon wees, jy onthou daai goed verstaan jy, dan dink jy maar hoe kan hierdie mense nie meer daai hê nie.

R1 *To clean is not part of their work any more.*

R3 En as mens so maak, *repeating repeating*, hoe meer oefening jy inkry.

R4 Hmm.....

R4 En dit kom in by die studente wat byvoorbeeld wat moet hulle prosedures afteken, dit help nie hulle moet een prosedure afteken nie dis 'n herhaling van prosedures wat 'n paar keer reg gedoen is.

R3 Yes

R1 Maar nou veilige werksomgewing sodat hulle beskermde *judgement* kan vorm nê.

R4 Iemand moet die geleentheid kry vir die *clinical judgement*. Ek weet die *three G* as jy hom nie kans gee om te kan dink en besluit en wat is die volgende stap nie, gaan jy dit nie kan doen nie.

R1 Dit is soos ons, ons moet bevel werk doen van ons tweede jaar af nê, okay die susters het gereeld by ons omgekom nê maar ons het daai verantwoordlikheid gekry om besluite te kan neem in samewerking te kan neem saam die suster, maar ek meen dit het ons baie beter vermoë gegee.

R2 Wat inkom daar is ook wat jy sê as daar te veel mense in 'n saal is, of te veel mense dan kry jy nie die leergeleentheid nie.

R4 Yes

R2 En dan ek jy leer uit jou foute né die grootste ding wat ek onthou waar jy 'n fout gemaak het en jy moes hom regmaak nê.

R3 Ja.

R4 Ja jy moes verantwoordlikheid dra vir jou foute nê en daaruit moes jy leer.

R1 En daai tyd kliniese, as jy so aangaan met 'n pasiënt gaan jy 'n klag kry so jy kan nie net antwoord soos jy wil nie maar sê nou net daai pasiënt kla nou nooit nie dan gaan jy nooit leer om korrek met 'n pasiënt te praat nie nê.

R2 Maar jy moet ook 'n vangnet hê jy weet as jy, jy moenie bang wees dat as jy 'n *clinical judgement* dat jy doodgeslaan gaan word as jy 'n fout maak nie weet jy , Jy moet vertrou he in die sisteem om jou familie te wees om te kan waag en prober met ondersteuning.

R1 Ja anders gaan jy jou mos alles maar weg steek né jy gaan nooit wil leer nie.

R3 *Yes you will jig and jive.*

I So die sisteem moet jou vangnet wees?

R4 Ja jy het 'n fout gemaak maar dan skrik jy jou nog dood ook, pleks hulle net die vlerkies bietjie weer lig gee dat jy weer kan aangaan.

R2 Maar weet jy want jy het eintlik so vrees nê vir aksies as jy 'n fout maak uhm... dat ons mos nou moes versekering uitneem. Dit is vir buitewerk eintlik dit is nie eers vir binne werk nie en almal wil net die hoogste uhm ja, maar vir buite werk nie eers jou eie werk nie so dat mens so angstigheid eintlik al nê.

R1 Veral ons kultuur vandag nê,

R1 Ons loop op dun ys.

R2 Uhm wil regs aanspreeklikheid vir alles wees nê!.

I Ondervinding, julle dra ondervinding by julle *clinical judgement*, wat presies van die ondervinding help jou om tot *clinical judgement* te kom?

R2 Jy moet die ding gaan fisies doen en verstaan dit help nie ek hoor dit is hoe linker hartversaking lyk nie, maar ek het nooit 'n pasiënt wat ek nou miskien het en agter gekom het hy raak *dizzy* nie, verstaan jy. Jy moet net daai goed self sien om dit vir jouself te kan interpreteer nê.

R4 *Because theory and practice needs to come together nê.*

R1 Dis soos 'n padkaart te hê nê maar as jy nog nooit daai pad gery het nie, gaan jy dit verseker nie kry nie maar na die derde keer wat jy dit ry, dat jy agterkom okay by die boompie is daar 'n rooi lint en dit is hoe ek ry nê. Jy kan daai padkaart bestudeer het en *ge google* het en ge drie dimensioneel het, maar as jy nie daai pad gery het nie, naderhand weet jy *okay* hier is 'n kinkel, hier moet jy kyk vir 'n draai nê.

R3 Then you need inner motivation also, because the one the don't, have any will not be willing to "*nie lus het nie*",

R2 Wat net 'n *act* is nê, as dit net 'n job is gaan dit ook nie *clinical judgement* hê nie, So *clinical judgement* kom met *commitment* en passie.

R1 Ja.

R En as hy *rights* het, dit is my *right*. Nee dan gaan hy nooit *equip* nie.

I Hoe kry mens daai *edge*?

R2 Ek dink in die eerste plek by studente moet hulle gekeur word, nie elke ou wil verpleeg nie.

R1 Ons sien dit met die studente hier.

R3 *For sure if they do it for the money.*

R2 Dan kan jy sien hierdie ou moes nie hier gewees het nie nê. Want 'n ou wat regtig wil verpleeg, is die ou wat bietjie langer aan diens bly, wat belangstel in die pasiënt. Soos ek sê, wat bietjie moeite doen. Dis die ou.

R3 Ja en dit kom natuurlik nê.

R4 Dit is 'n *inner motivation* ja.

R1 Ja daai ding lê by elke ou self ongelukkig jy kan, jy kan hoeveel geleenthede in jou eenheid gee party gaan nooit daarby baatvind nie dit gaan net nooit gebeur nie.

R1 Want geld is nie 'n motiveerder nie.

R2 Ja. Dit is gerieflik maar dit is nie 'n motiveerder nie.

R3 Miskien nie onder die studente nie, maar ek dink baie keer in die wêreld.

R1 Ja, ons praat nie van dosente nie, julle kry mos baie.

R2 Nog iets wat hier kan kom is om dalk vroeër die realiteit vir studente te kan gee voordat hulle begin en sê kom 'n dag saam.

R4 Ja. Ons het dit nogal in ons eerste jaar gekry en omdat ek nog nooit verpleeg het nie, weet ek nie hoe.

R2 Ja, en partykeer het hulle die wanindruk dat hulle daar vir die wereld is.

R1 Ja, nog voor hulle begin swot het.

R2 Hmm maar dit is waar dit goed is, as daai *jobs* verhouding doen.

R3 Ek wou dit nou net sê, jy moet dit moet eintlik 'n vereiste wees vir keuring. Jy moet ten minste twee weke *job shadowing* gedoen het.

R4 Ja en jy moet hard werk in daai tyd.

R2 Maar dis dieselfde. Nou met die vierdejaars. Ons was baie besig. Ek is eers twee ure later huistoe. Soek hulle. Ek vra, het julle al koffie gedrink, nee hulle gaan nou, okay ek is nou happy ek hardloop soos 'n vlakhaas teater toe en terug toe het hulle nie lunch gehad nie en het vir hulle lunch gekoop en kuier en eet lunch maar die res van die sale se verpleegsters werk hulle hardloop laat die sweet tap en ek meen daar was nou glad niefie clinical judgment nie. Ja die realiteit is daar is baie dae

wat ons nie teetyd kry nie. Ons kry ook nie *lunch* nie nê! Ongelukkig verpleging is dit maar 'n realiteit. Dit is nie te sê as hulle sê, as die werk sê jy mag 'n uur ete kry jy gaan daai uur ete kry ni né.

R1 En dit is wat hulle nou gesê het daai realiteit is, nê.

R4 Maak nie saak of daar 'n *what ever* gebeur nie.

R3 Ja, ons gaan nou eet, ja dit is ons *lunch*.

R1 Ja en dan is dit 'n krisis.

R2 Ja want die outjie wat nou agter bly hy *suffer*, want hy het nou daai *judgment*, en dan werk hy nou sy allie af en die ander rus nou.

R1 En die probleem is weer terug na die na die uhm nie privaat nie na die staatspraktyk. Ekskuus nou kon ek nie aan die word kom nie, daai ding van al die bevelsusters sal sê kom ons vat *lunch* en dan bly daar studente net oor.

R1 Ja dis hoekom ek sê jou beheersisteen het daar ingekonk hoor. Want in ons dae.....

R2 Maar jy moet altyd iemand in bevel los en as daar moet iemand wees wat bevel kan vat en weet daai ou is *comptetent* om dit te kan doen.

R Ek het een keer vir 'n *nurse* geskreeu: "Vandag is hier nie tee nie". Oh was daar nou moelikheid daaroor. Sy wou toe gaan bedank het. En toe ek nou so, toe sê ek maar daar was nie tyd vir *lunch* vir tee vandag nie. Dit is so! maar uhm ja.

I So, wat dink julle met die agtergrond wat is die dryfveer agter om op *lunch* te gaan en pasiëntsorg agterweë te laat is dit? of is dit iets anders?.

R3 Ek dink dit is die *reinforcement of legislation* net om te sê jy mag nie diskrimineer nie. Dit is my *basic right* om ete te vat as ek so lank werk.

R2 Ja die arbeidswette sê so en so.

R1 En jy verstaan nie, ek dink dit is ook die visie van die groter prentjie. Ons gee net nie meer om nie!

R1 Ek dink ook 'n ou wat in sy hart 'n goeie *nurse* is met *judgement* gaan nie eers kla daaroor as hy vir 'n dag weens pasiënte wat sy versorging nodig gehad het nie ete kry nie.

R Jy het die reg om dit en dat te doen.

I Oh ja dit is deurmekaar,

R2 Dit is deurmekaar. En ons het nou met die vorige een gepraat die etiese ons het altyd, het hulle nog etos.

I Hmm Is *ethics important as part of clinical judgement?*/ Is etiek van belang vir clinical judgement? .

R4 Ja dit is! Hulle was vreeslik streng met ons in daai vak nê en jy het daar die reels en die alfa en omega geleer nê en as ons daai deel afgeskeep is né of nie regtig meer weet hoe eer is dit om te verpleeg en hoe belangrik is dit en daai goeters.

R2 Nie oor die Pajero wat jy moet ry nie.

R3 Ja, en ek bedoel daar is studente hulle loop met hulle fone in die gange en is nie gepla. Daai tyd toe ek klaar gemaak het, jy was te vrek bang vir die susters.

R2 Hulle is nou glad nie bang vir hulle senior's nie.

R2 Daai vierdejaar het my so *gecheek* gister dat ek amper 'n aar gepop het hy sê vir my hy is net daar vir *cheap labor* vir ons. Ek sê “ Oh, Oh.”

R1 Ek dink ook die goeters kom nie by die skool uit nie, ons probeer die kommunikeer.

R4 Ja.

R Ja maar ek meen daar is ook nie wat ook hierdie ook nie si nie, ek dink hierdie ou moet beraad word,

R2 Ja, ja ek het ook vir Therese gesê want ek dink dit kom baie hier nie maar daar was ook 'n student wat nie opgedaag het nie maar ek maak nie voorsiening vir ander mense nie, want dan trap ons mekaar dood.

R4 Ja, ja.

R1 En hulle moet ervaring kry, toe sê ek virbel haar asseblief en sê sy moet kom werk, toe het sy verslaap. Toe sêsy staan nou op en gaan werk joe en sy kom daaraan niks *make up nie* maar sy kom. Ons moet dit meer doen, nie dit nie vir haar maklik maak en sê *okay* ons boek jou af siek of jy vul 'n verlofvorm in. Nee niks verlofvorms nie, want daai pasiënt maak staat op jou nê. En jy laat eintlik die pasiënt in die steek. Mense het staat gemaak op jou om hom te versorg so ek dink 'n ou moet baie meer daarop kyk hoor. Jy het net soveel mense wat na die pasiente kan kyk en as een laat weet hy kan nie kom nie.

R3 En dis 'n rippel effek. Nou laat hy jou in die steek, maar dis ook die kollega. Nou moet die kollega bietjie harder werk, want jy is nie daar nie die pasient verloor, want jy moes na hom kyk.

R2 Of jy moet nou iemand ander's uit 'n ander saal uitkry om daar te kom werk en sy is nie opgelei vir daai nie. Haar risiko is groter.

R1 Ja want as jy goeie *clinical judgement* het, gaan jy weet daai pasiënt gaan *suffer more*. So ek moet die suster laat weet ek kan moontlik nie kom werk nie want ek het nou my voet verstuit dan weet sy al om reëlins te maak. Dit is net of daai *non chalante* houding *oh well dit is orait*.

R2 Hoekom het hulle daai *non chalante* houding? Is ons nie meer streng genoeg nie of wat?

R1 Dis 'n reg.

R4 Ek dink die regulasies is nie meer so erg nie. Dis nie meer so dat as jy nie opdaag nie dan het jy nie meer werk nie, so maak jou keuse.

R3 Yes

R4 Ja, dit is soos jy sê, Vul maar verlofvorm in.

R2 Ja, dit is soos in die ou dae, moes jy by die *matron* gaan rapporteer het. As jy terug is, ou maaitjie jy was nou bang om te sê ek is nou terug van siekverlof, want sy het gesê. Nou wat het jou mekaar en wat fisiese mense laat opneem in die hospitaal die studente so ek sê as jy siek is dan lê jy in die hospitaal jy weet uhm.

R1 Jy weet, ek het nou in my eerste jaar 'n koorspen gebreek toe ek hom nou afskud. Jy weet die kwik. Toe het die suster vir my gesê jy sal vanaand werk tot agt uur, en dit oor ek 'n koorspen gebreek het.

R3 Ek het fyftien koorspenne gebreek onder warm water.

R4 Maar dink net as ek dit vir een van daai van ons moet sê.

R3 Jy sal 'n *CCMA case* op jou hê, dadelik.

R4 Ons moes 'n uur langer gebly het om die bedkaarte oor te skryf wat slordig was.

R3 Ja, ek dink die *discipline* ding is ook erg. Ek weet ek ook eenkeer dit in my eenheid gedoen en toe daai aand ek dink dit was 'n ouerige dame wat vir my gewerk het en ek was nie eers streng nie. Die ding is net sy het iets belaglik gedoen in die eenheid ek kan nie eers onthou nie.

R4 Uhu

R2 Toe die aand toe sms die dogter my en sê hulle het my gerapporteer aan die CCMA ek sal net moet wag tot my sakie kom, daai einste een wat die, ek meen toe was ek net nog, ek meen daai tyd was ek drie jaar of iets eenheidbestuurder. Nou kan ek dit hanteer, want nou weet ek ag jy bluf ek het al my bewyse. Ek het al my geskrywe, jis, maar daai een! Weet jy, hoeveel slapelose nagte ek gehad het?

R1 Ja, ja.

R2 Dat jy dink ek pas nie *discipline* toe nie, want ek gaan nie my werk verloor nie, maar so dit is 'n ek dink die wetgewing maak dit vir ons.

R2 En hulle is maar gou om die bestuurder vir 'n grieweprosdure aan te gee.

R3 Griewe ja verseker en dan het jy vergeet om iemand te groet in die gang omdat jy besig is en aan tien ander goed dink.

R4 Ja, ja.

R2 Uhm het ons hierso saalrondtes ingesit, kliniese rondtes saam die Dr en goed?

R3 No

R1 Ja dit is ook goed nê.

R2 Ja, ja hulle moet geleenthede kry om ook saam met die Dr's byvoorbeeld rondtes te doen ingeval hulle besprekings moet doen.

R3 Die taal, die taal *barrier* is ook 'n probleem.

R2 Ja en gewilligheid. Almal is nie altyd gewillig om saam die Dr te loop nie.

R Hmm

R2 Hier by ons wil die Dr's saam hulle loop nie.

R3 Hier by ons loop hulle saam studente eintlik. Behalwe jou, *favourites* loop net saam *favourites*.

R2 Daar moet 'n rede wees as hy net saam met jou wil loop. Hy is seker moeilik.

R1 Maar daai internis, weet jy hoe goed kan hy 'n ding verduidelik, weet jy wat hy is nie?

R1 Dr De

R2 Maar hy kan regtig goed verduidelik. So as jy regtig goed wil leer nê dan kan jy leer dit help vir jou meer.

R3 Maar by ons is dit presies dieselfde, by ons het ons een wat altyd die hoogste gesag soek. So wat nou maar gebeur, as hy inloop dan loop ek nou maar saam met hom.

R Hmm

R3 Dan het jy so baie ander werk.

R2 Ja en dan is hy gewoonlik die een met die meeste pasiënte ook.

R2 En jy weet daar is nie eintlik iemand anders om saam met hom te loop nie.

R2 Weet jy wat doen ek, daai spesifieke, hy kyk nie eers vir die suster wat daar werk nie. Hy praat met my. Ek bedoel ek het nog nie eers tyd gehad om al die pasiënte op te som nie nê. Hy kyk nie rond nie, hy praat met my. Hy vra vir my wat is die vraag. Hoekom vra hy haar nie, Hoekom moet ek haar vra?

R1 Dit kom weer neer op *incompetence* want daai Dr is nie *stupid* nie. Hy weet met wie kan hy praat en hy weet wie doen die prosedures.

R3 Ja dit is, dit is *peace of mind* gee.

R1 En wie doen wat hy voor gevra het.

R2 Want hulle maak op ons staat om veilig te wees nê. Ons moet kyk dat dit nie vir hulle onveilig raak nie.

R3 Ons is op die ou end hulle werkers.

R2 Ja, ja, ja.

R1 Om te sê, maar hoor hier Dr, is jy seker want jy het die confidence en jy het die kennis om vir hom te kan sê Dr ek is nou nie seker hieroor nie waar 'n ander ou wat mal is oor Dr en nie eintlik iets kan sê nie gaan net, 'maar Dr het so gesê'.

R3 Yes

I Wat ook 'n ding is, hulle word nie die geleentheid gegee vir groei tot *clinical judgement* nie.

R1 Ja.

R2 Want veral in die Staat kan ek panado gee vir die hoofpyn.

R3 Yes

R1 Hier, sjoe!

R2 Maar hulle word nog toegelaat om besluite te neem.

R1 Ja, hulle kan nog in die sin van hulle kan die Dr bel en sê hoor hierdie ou het nou skielik 'n verskriklike pyn. Wat kan ons doen vir hom?

R2 Ek moet sê ek is dankbaar vir die ondervinding in die staat hoor. Dit het vir jou daai kliniese judgement, dit is waar wat jy sê. Want ek bedoel, jy is al een wat baie keer 'n kind kon intubeer, baie keer nê?

R1 Hmm

R2 En dit het mens ongelooflik selfvertroue gegee.

R1 En nou verloor jy dit, jy verloor daai selfvertroue want oh vrek jy moet ook nou nie dink nie.

R1 Jy gaan op outonoom werk, Dit is die nuwe *buzzword* outonoom.

R2, 4 Nee kyk toe ek vir die staat ook gewerk het, ek het by Onkologie gewerk en toe sê ek vir die Dr, Nee Dr die nuwe ding hoe jy asma behandel, is dit en dit en dit. Toe ek teruggaan sê die ander; Het jy nou gewaag om dit vir hom te sê. Dit was nou baie jare terug. Dit was op die platteland, Vra hulle Het jy dit gewaag om vir die Dr te sê het hy nie jou kop afgebyt nie. Ek sê toe "Nee".

R1 Nee, maar gewoonlik dit klink my as iemand vir hom iets sê. Ek sê toe dit gaan oor hoe jy vir hom iets sê.

R3 *Yes, it is so, it is right*

R2 Dit gaan nie oor, wat jy vir hom sê nie. Dit gaan oor die gesindheid waarmee jy dit vir hom sê. Ek het net gesê jy weet, Dr, ons het in saal 3B in het ons dit en dit gebruik vir die asma ouens en binne drie ure was hulle longe oop en jy weet as hulle *better* was dan was hulle net op instanhouding tot hulle abdobomien vlakke reg was en hulle het onmiddellik verstaan en gesê nou *okay* kom suster sê gou weer.

R3 *Yes, but you see he uses you skills!*

R1 Maar ek dink partymaal is daar 'n *barrier*, 'n kommunikasie *barrier* en dan selfvertroue van hoe ek my *skill* oordra. Ek dink ons het baie goed waar ons vir die Dr

kan sê Nee Dr weet jy wat hierdie werk *better*, hetsy uit ondervinding uit. Maar jy is te bang, jy is te bang om 'n opinie te lig.

R4 En jy moet eintlik nie wees nie, want jy het jy is goed genoeg.

R2 Ja en ek sê altyd vir die ouens by my ook ons wil altyd die *advocate* wees vir die pasiënt nê, maar net as die Dr nie na ons sin optree nie en doen nie, maar ons het nie altyd die teoretiese grondslag om vir hom te sê! Dr die CVI, hy moet binne 'n uur in die scan wees, want ons moet weet dit en dit en dit want ons moet weet bloei hy of is dit inflomaat kan ons vir hom 'n dinges gee, so dit is sulke goedjies.

R1 Ja, ja, ja, hmm.

R2 Ons weet nie, *of on sweet* maar ons het nie daai fiete/ teorie kennis nie.

R3 Ja, dit is.

R3 Ons het nie daai feitekennis om te kan.....

R1 As ons so bekommerd is moet ons kan sê: Luister Dr ek is bekommerd oor 'n pasiënt kom sien hom dadelik. Of jy moet kan sê *okay* jy weet sy HOB lyk reg dan kan jy telefonies nê, maar jy moet daai *judgement* hê om vir hom te sê luister kom nou dadelik kom kyk na die pasient.

R4 Maar dink jy nie dit kom nou in op die Dr se kant dat in die verlede 'n manier hoe dinge vir hom oorgedra is of 'n manier hoe mens vir die Dr's partykeer praat of so, dan sal die Dr sê: Ag hoor hier, jy weet nie nou waarom jy praat nie.

R2 Hmm, ja maar as die Dr jou *trust* dan gaan hy kom. Hy sal kom.

R1 Hy sal weet hierdie ou praat nou nie *nonsense* nie en hy doen dit oor die algemeen uhm en daai ding van hy moet weet as jy hom bel en vir hom sê ek is bekommerd, dan is jy regtig bekommerd. Jy moet nie elke keer sê Dr ek is nou bekommerd en dan kom hy daar en dan is die ou *okay*.

R2 Jy sien dit is hier waar die teorie en die praktyk werklik bymekaar kom. Ek moet weet wat is die tekens van skok, Nou moet ek sien die pasient het hy die tekens en dan moet ek dit vir die Dr kan sê hier is die tekens wat hy het. Hy moet kan *click* hierdie ou is in skok nê. Ja, so ek dink in opleiding moet ons baie konsentreer op jou uhm ons het mos altyd in die ou dae kritieke punte gehad nê. Ek weet nie of julle dit nog doen nie nê,

R1 Ja,

R1 Maar ou moet mos kyk na kritieke punte want dit is die goed wat 'n ou se lewe gaan red of nie *at the end of the day*.

R2Ja, ja.

R Maar ek dink.....

R In evaluasie was daar die sterretjie punte.

R Ja, as jy hulle gedruip het, dan het jy gedruip.

R Ja.

R Dit wat ek in die praktyk sien en wat ek jammer voel vir die verpleegkundiges is, ek het 'n sterk ondersteuningsstelsel by die huis so vanaand as ek vrek sleg voel oor iets by die huis, dan is my man daar en hy is wonderlik ondersteun, Baie van hierdie outjies nê hulle is die stelsel.

R En baie van hulle het moeilikheid by die huis ook.

R2 So, hulle kan nie vanaand afkom en sê hierdie dokter het so op my geskreeu nie en waar ek nou al gesien het nê, die mense wat bietjie meer *kliniese judgement* het, is die ouens wat bietjie meer ondersteuningstelsel het want hulle het iemand om teenoor te reflekteer, want om elke dag in hierdie *job* te staan en niemand te om te reflekteer, ouens daar is ook moeilike pasiënte. Ek sal sê ek dink ek het my

personeel hierdie situasie, dan sal my man sê nee man dit en dit en dit is hoe dit vir my klink moenie daaroor *worrie* nie .

R1 Dit is 'n persoon wat nie betrokke is nie, So hy kan 'n goeie oordeel lewer.

R2 Ek weet nie van vrouens wat nog met hulle mans wat *abusive* is by die huis. Kon hulle Dr's nog minder verdra, want hulle voel dan.....

R4 Hoor hier, maar ek wil ook net sê uhm vir hulle *one to one* of nie groep werk nie, groepwerk ja waar jy jou ses pasiënte het waarna jy kyk. Dit is vir my 'n goeie leergeleentheid ook om hierdie *judgement* te maak want anders het jy 'n takie en dit is al wat jy doen vir die dag. Dis net 'n takie.

R3 Yes.

I So dis nie 'n holistiese benadering nie?.

R1 Ja want dit gaan vir jou beter *skills* gee op die ou end. 'n Mens moet net pasop om mense altyd net 'n taak te gee en hy kruip altyd lekker weg agter sy taak jy weet hy dis al wat hy hoef te doen. Al vat hy die hele dag, dis al wat hy moet doen net die taak.

R3 En die taak kom nie by dit wat is.

R2 Ja weet nie werklik eers iets van daai pasiënt

R1 Dit is baie waarJa so as jy in 'n span verpleeg. Ek het nou die dag gesien, want ek het noudie dag ek gaan kyk altyd terug na my pasiënte in die saal as hulle in ICU gelê het. Toe kom die suster om met haar trollie medisyne en ek het nog nooit in 'n saal gewerk nie. So ek weet nie wat die opset is nie en ek vra hoe gaan dit met haar en sy sê kyk my so aan en sê luister hier ek deel net pille uit, toe dag ek *okay* maar jy moet nogsteeds weet hoe gaan dit met jou pasiënt hoe deel jy pille uit as jy nie weet nie. Maar dit is soos jy sê, daai taak is al wat sy hoef te doen en sy kyk hoe vinnig kan sy daai rondte doen. Hoe moet daai pasiënt voel.

R1 Jy kan nie daai pasiënt verloor as 'n mens nie – nie net te praat van as 'n moesie nie ...

R4 Ja of Bed 4.

R4 Ja of die knieg of die prostraat of die ambei.

R3 Ja ek sal dit maar skryf as nommer nê.

I Goed, julle ek dink ons onderwerp is uitgeput.

ANNEXURE N:

EXAMPLE OF NOTES ON THEMES, SUB-THEMES AND RELATED SUB-THEMES

Question 3 FG 1: How do you think come a nurse to clinical judgement

R	Comment		Theme	Sub-theme	Related sub-theme
R2	Wanneer hulle 'n prentjie kan maak en dit by die praktyk kan sit.	Training specific factors: Teorie-praktyk intergrasie	Training specific factors:	Theory/ practice integration	Application of knowledge
R3	Dit moontlik dat hulle die teorie en die praktyk bymekaar kan bring?			Opportunity for learning	Exercise over time of procedures
					Shared Responsibility
					Leergeleenthede: pasient toewysings metode in totaliteit met pasient werk en nie net taak toewysing waar die kontak met die pt gefragmenteer word
					Saal rondtes
R2	R2 Ek weet dat as die teorie vir hulle oorgedra word in 'n meer praktiese wyse jy weet, byvoorbeeld as jy sê 'n hartversaking die linker of die regter hart, jy sê okay regter hart versaking wat is die organe, meer praktiese ding hierdie ou gaan geswelde bene hê, 'n idee, maar meer prakties as hy sy oë toemaak	Praktiese Toegepaste teorie/ kennis		Facilitators/ lecturers needs to be knowledgable	Theory: lecturers needs clinical experience for integration Theory expert and application
					Clinical facilitators needs theory knowledge and experience for application and integration

	en hy sien 'n pasient moet hy die meer visuele beeld hê.				
R2 R4	meet visueel nie net 'n jy weet jy moet 'n prentjie kan maak jy weet jy moet dit kan herken.				Ability to transfer knowledge
R1+2,3	ervaring en ondervinding	Ervaring/ondervinding	experience		
R4	die onderwys wat aangegee word moet op so manier gegee word ook, die fasiliteerders of die lecturers moet knowledgeable wees hulle moet iemand hê wat actually weet wat hy doe nom daai knowledge oor te kan dra.				
R5	Ek dink die ou wat voor die klas staan moet so bietjie praktiese ervaring hê.	1. Dosent praktyk teorie integrasie	Role model		1. Dosent praktyk teorie integrasie
R1	dosent gehad het in my tweede jaar nê en ek sê vir jou toto vandag toe onthou ek van die goed wat sy gesê het want sy het dit net so gesê dat jy weet ek hereken hierdie ding of dit is definitief soos jy sê as jy daai teorie en praktyk met mekaar kan laat trou basies nê.	2. Dosent Praktiese experience			2. Dosent Praktiese experience
R2	rolmodel nê want as die person wat jou hand vat in daai area se kliniese judgement goed is gaan jy dit ook hê ek onthou die ouer sisters het gesê maak hierdie trollies al die wile alles moet skoon wees	3. klinies Rolmodel			3. klinies Rolmodel
R3	En as mens so maak, repeating, hoe meer oefening jy inkry	Inoefening/ experience	Internal motivation	Take learning opportunities	
R4	dis 'n herhaling van prosedures wat 'n paar keer reg gedoen is.		Student selection	Kom tot Realiteit voor loopbaan kies	

R1	veilige werk omgewing sodat hulle beskermde judgement ontwikkel	Werks omgewing	Clinical work environment	Save environment	Safety support net/
R4	Iemand moet die geleentheid kry vir die clinical judgement. jy him nie kans gee om te kan dink en besluit en wat is die volgende stap nie	Geleentheid/ verantwoordelikheid	Nursing PRACTICE Realism		
R1+2,4	Dit is soos ons, ons moet bevel werk doen van ons tweede jaar af nê, okay die sisters het gereeld by ons omgekom nê maar ons het daai verantwoordlikheid gekry om besluite te kan neem in samewerking te kan neem saam die Sister maar ek meen dit het ons baie better vermoe gegee.				
R2,3,4,1	En dan ek jy leer uit jou foute ne die grootste ding wat ek onthou waar jy 'n fout gemaak het en jy moes hom regmaak nê. Ja jy moes verantwoordlikheid dra vir jou foute nê en daaruit moes jy leer				
R2,3,4 R2	jy moet ook 'n vang net hê jy weet as jy, jy moenie bangwees dat as jy 'n clinical judgement dat jy doodgeslaan gaan word as jy 'n fout maak weet jy, jy moet vertrou he in die sisteem om jou familie te wees om te kan. jou mos alles maar wegseek ne jy gaan nooit wil leer nie Ja jy het 'n fout gemaak maar dan skrik jy jou nog dood ook, pleks hulle net die vlerkies bietjie weer lig gee dat jy weer kan aangaan.				

	wat jy het eintlik so vrees nê uhm da tons mos nou moes versekering uitneem maar dit is vir buitewerk eintlik dit is				
R2	Jy moet die ding gaan fisies doen en verstaan. Jy moet net daai goed self sien om dit vir jouself te intenationaliseer nê.	Fisiese inoefening/belewenis			
R1	Jy kan daai padkaart bestuurder het en ge google het en ge drie dimisioneer het maar as jy nie daai pad gery het nie, naderhand weet jy okay hier is 'n kinkel hier moet jy kyk vir 'n draai nê.				
R3 2,14	inner motivation	Innerlike motivering vir ontwikkeling			
R2,1,3	studente moet hulle gekeur word	Keuring			
R2,41	Jy regtig wil verpleeg is die ou wat bietjie langer aan diens bly, wat belangstel in die pasient soos ek sê wat bietjie moeite doen dis die ou.				
R1,2,3	geld is nie 'n motiveerder nie				
R2,1,4	nie realities rakende verpl om dalk vroeër die realiteit vir studente te kan gee voordat hulle begin en sê kom 'n dag saam.	Kom tot Realisme voor loopbaan kies			
R3 R2 R1	vereiste vir keuring is 2 weke job shadowing				
R4	hard werk tydens job shadow				
R2,1,3,4	etenstyd is nie 'n gegewe nie maar met oordeel volgens werkslading en saal rush	Arbeids Wetgewing/ mense regte	Labour act/ human rights		
R1,2	bevel moet geneem word deur iemand wat competent is	competence			
R3	Mense regte om ete te neem al is saal				

	hoe besig				
R2	Arbeidswette se so				
R1	goeieverpl het judgement en sal nie kla nie	verpl met etiek en eienskappe van verpl	Nursing Ethics		
R2	etiek is NB				
R4 r2	etos was ingedril en dir is 'n eer om professionele praktyk te leer				
R3	student het geen maniere etiek loop met fone				
R2	geen vrees? respek vir seniors				
R2	student is cheecky en praat terug				
R1,4	kommunikasie	einskappe: kommunikasie			
R4,2	studente afwesighede pligsgetrouheid	pligsgetrou/ dissipline			
R1	nie staatmaker, laat pt in die steek en kollegas wat harder moet werk	staatmaker			
R1,2	bedagsaamheid en pligsgetrouheid en professionaliteit indien afwesig gaan wees laat weet in advance = cj vir reelings in saal vir personeel anders suffer pt	bedagsaamheid en pligsge-trouheid en professionaliteit selfvertroue behulpsaamheid			
R1,2	sisters en toesighouers is nie streng nie en pas nie dissipline toenie	discipline toepas/handhaaf deur seniors	Unit manager dissipline		
R 342	studente het nie dissipline nie				
R2,3	toepassing belemmer deur mense regte/ wetgewing wat geskend word en klagte by ccma en griewe prosedure				

Table 1: Summary of World Café data results

Theme 1: Professional nurses' understanding of clinical judgement	
Sub-themes	Related sub-themes
Effective noticing involves	<ul style="list-style-type: none"> • Relationship wit patient and his family • Personal context: values and norms, beliefs and living circumstances • Patient health background • Observation • Patient centred care • Whole-person treatment approach • Assessment. • Patient expectations • Integrity
Effective interpreting involves	<ul style="list-style-type: none"> • Prioritising • Critical, creative thinking, • Insight, Unique management GRASP • Intuision • Self- confidence • Self- discipline • Commitment. • Acuracy • Clinical experience/ • Clinical expertice • Planning
Effective responding involves	<ul style="list-style-type: none"> • Effective Communication with patient, family • Theory and practice integration • Organisational context/ policies • Eagerness to educate and train colleagues • Responsibility • Judgement according knowledge and clinical experience • Implementation of actions • Multi-professional team context : • Expertice • Discerment/Anticipation • Ability to adapt

Effective reflection involves	<ul style="list-style-type: none"> • Evaluation of care (Outcomes) • Decision-making
Effective noticing characteristics involves	<ul style="list-style-type: none"> • Respect For Patients' • Knowledge and insight. • Self-knowledge • Clinical experience. • Observation • Patient health context • Personal values and norms. • Personal religious believes • Spiritual/Religious acknowledgement of patient. • Friendly and humoristic patient interaction • Empathy • Interest in the patient and care giving
Effective interpreting characteristics involves	<ul style="list-style-type: none"> • Intuition • Insight • Commitment • Enthusiasm • Discipline. • Co-Operation. • Confidence • Clinical Experience/ • Discerment/Anticipation • Judgement
Effective responding characteristics involves	<ul style="list-style-type: none"> • Immediate response and leadership in the situation • Assertiveness • Theory and practice integration. • If the situation is out of your control or scope of practice to ask for help from multi-professional team members • Effective communication between colleagues and patient. • Conclusion of situation and judgement
Effective reflection involves	None identified

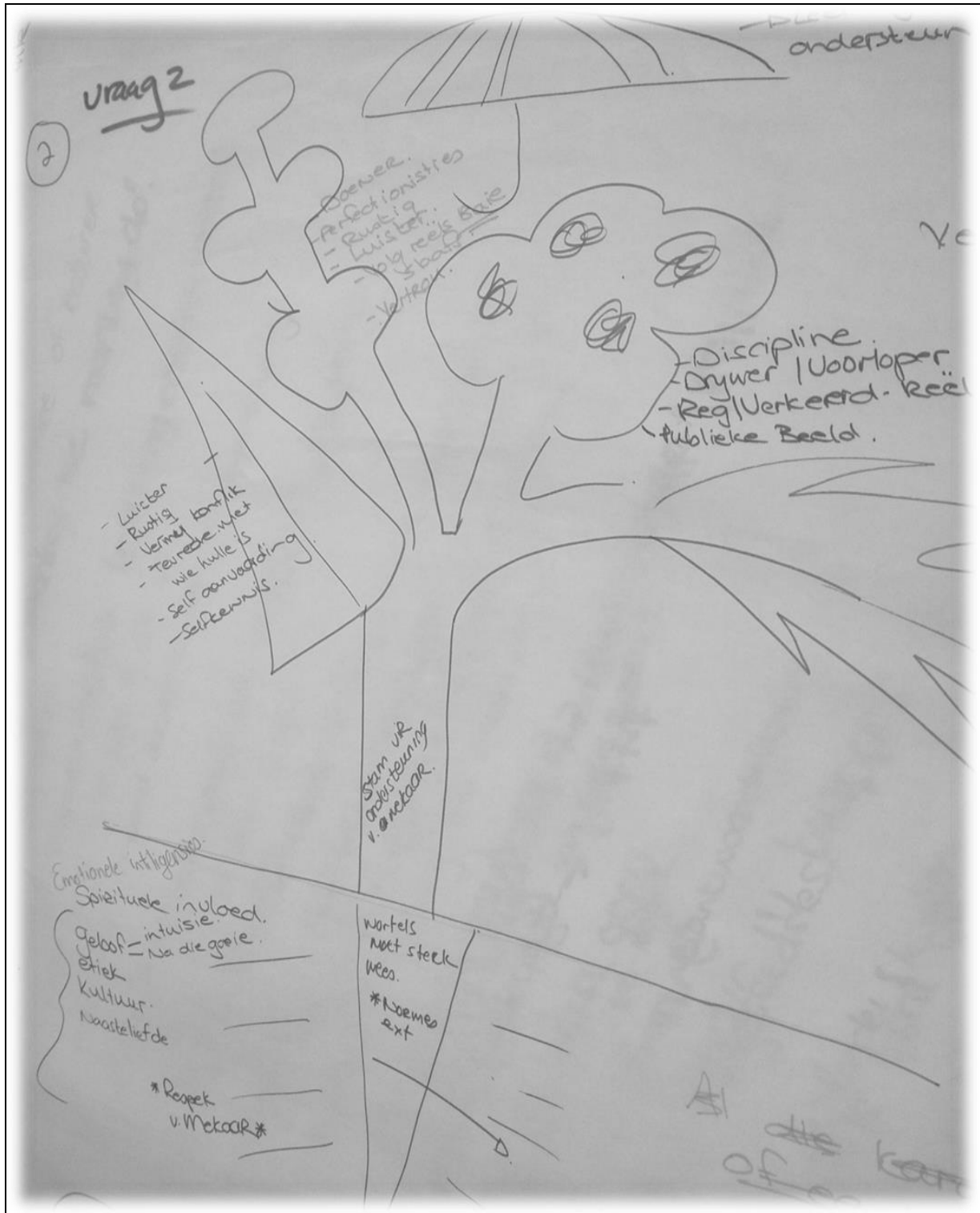
Theme 2: Factors with in the South African clinical nursing environment which have an influence on clinical judgement.	
Sub-themes	Related sub-themes
<ul style="list-style-type: none"> • Theory and practice integration 	<ul style="list-style-type: none"> • Accompaniment of studentsFirst impressions of nursing care • Insufficient rolemodels • Un equipped junior nurses\ • Lack of in service training • Lack of Education and clinical competency. • Outcomes not reachable • Continious Update of emergency procedures
<ul style="list-style-type: none"> • Policy implementation 	<ul style="list-style-type: none"> • PoliciesPolicy makers not involved in implementation • No ward and policy orientation produces poor pt care
<ul style="list-style-type: none"> • Communication 	<ul style="list-style-type: none"> • Communication between clinical set up and school: expectations of hospital/ wards, students and school
<ul style="list-style-type: none"> • Resource management 	<ul style="list-style-type: none"> • Lack of resources and stock • Protocols en prosedures. • Availibility and maintanace of equipment
<ul style="list-style-type: none"> • Personnel management 	<ul style="list-style-type: none"> • Time management • Management of diversity • Service agreement • Lack of role modeling • Management of discipline
<ul style="list-style-type: none"> • Delay of nursing care • Unprofessional & unethical behaviour 	<ul style="list-style-type: none"> • Absence profile, smoking, cell phone use, transport & personal issues • Abuse of patient's trust • Disrespectful behaviour • Lunch/ tea time • Absence from duty without permission
<ul style="list-style-type: none"> • Negative interpersonal relationships 	<ul style="list-style-type: none"> • Abusement/ Bullying of the nurse: pasiënts, dr's and colleagues. • Discrimination/ victimisation • Poor Interpersonal team work, conflicting interperonal/ rational/ culture and believe system conflict
<ul style="list-style-type: none"> • Refuse of medical 	<ul style="list-style-type: none"> • Cultural and believe orientation

treatment	
• Language	• Insufficient communication
• Nursing agencies	• Agency peronnel don't take ownership and accountability for patient care. • Insufficient knowledge base/ no work output
• Training of nuses	• Students as workforce • Not effective personnel • No rolemodels • No clinical accompanists
• Personnel/ward management-	• Negative motivation- work only for money. • Ineffective apparatus use • Abcense profiles • Personnel burnout • High work load and short staff impact on unsatisfying of basic patient needs • Age profile of professional nurses: • Debriefing/ counseling system
Theme 3: How a nurse comes to clinical judgement	
Sub-themes	Related sub-themes
Theory/ practice integration	• Application of knowledge/ theory during practice accompaniment
	• Student needs to be knowledgeable
	• Use of case studies during theory from previous practice session
	• Transfer of knowledge
	• Visualisation of cases
Opportunity for learning	• Exercising of clinical skills (procedures)
	• Shared responsibility for life- long learning/individual use of opportunities /Holistic patient approach/ language accommodation Role models
	• Debriefing sessions after practice and reflection on clinical experience
Facilitators/ lecturers needs to be knowledgeable	• Theory: lecturers needs clinical experience for integration
	• Clinical facilitators needs up to date empirical knowledge/ Theory expert and application

	<ul style="list-style-type: none"> • Ability to transfer knowledge
Nursing ethics	<ul style="list-style-type: none"> • Self- discipline/ inner motivation
	<ul style="list-style-type: none"> • Responsibility
	<ul style="list-style-type: none"> • Communication/ language accommodation
	<ul style="list-style-type: none"> • Respect
	<ul style="list-style-type: none"> • Commitment
	<ul style="list-style-type: none"> • Value principles
	<ul style="list-style-type: none"> • Nursing ethos
	<ul style="list-style-type: none"> • Patient cantered/ patient advocacy
	<ul style="list-style-type: none"> • Labour laws/human rights
Higher order thinking skills	<ul style="list-style-type: none"> • Critical thinking skills
	<ul style="list-style-type: none"> • Independent decision making skills
	<ul style="list-style-type: none"> • Clinical reasoning
Save work / learning environment / Student accompaniment impacting on students' progress to clinical judgement:	<ul style="list-style-type: none"> • Supervisor support when students default
	<ul style="list-style-type: none"> • Accompaniment
	<ul style="list-style-type: none"> • Clinical role model
	<ul style="list-style-type: none"> • Trust relationships
	<ul style="list-style-type: none"> • Simulation training for skill development
	<ul style="list-style-type: none"> • Clinical role models for positive learning environment
	<ul style="list-style-type: none"> • Continuous clinical facilitation & guidance
	<ul style="list-style-type: none"> • facilitation according to ward routine not just specific learning opportunities
	<ul style="list-style-type: none"> • Debriefing sessions after practice and reflection on clinical experience
Student placement	<ul style="list-style-type: none"> • Placement of students: in a safe area with infrastructure and equipment (gloves, glasses in the first and second year (junior years) • Safe & Positive placements/ learning experience to the less positive influence • Smaller groups/ placement and more clinical facilitators

Thinking skills	<ul style="list-style-type: none"> • Critical thinking, • Clinical reasoning strategies • Decision-making • Problem solving • Implementation of the nursing proses • Professional communication and patient conduct • Basic communication in a African language
Integration between theory and practice –	<ul style="list-style-type: none"> • Students good knowledge base (see Q 4) • Facilitation on practice/ facility policies and procedures • Lectures:/ facilitators Clinical Experienced • Lecturers/facilitators integrate theory and practice and mutual involvement • practice guidelines which indicate the precise procedure • Implementation of a buddy system • Simulation skill training • Student transition from student to professional nurse (nursing management) prioritizing, engagement with unforeseen circumstances • Clinical experts involment • Support system: Debriefing and reflection of students on practice sessions • Quality improvement meetings between the clinical environment and education settings

ANNEXURE O: EXAMPLE OF DRAWINGS AND NARRATIVES



Education (lack of)

short skilled staff

Motivation / Attitude

lack of resources

Image.

lack of standards

" " Roll modeling + begeleiding.

Measurement → ↓ Image.

→ Dr + pt + kollegos

→ of pot p right.

Emosionele intelligensie.

onreukle tussen teorie + prakties.

Stapelaars in maak van beleid

nie altyd prakties genoeg nie

erwagtinge van student nie duidelik nie

Etiek + professionaliteit ontbreek.

Pot journey moet fokus wees nie eie gemak zone.

Te veel studente → leer geleenthede gaan verlore.

Organisatie kultuur → pot journey.

Indienopleiding ontbreek d.g.v. te veel druk.

Uitkoms is nie altyd haalbaar nie.

Inv's word nie bemagtig nie → kwaliteit sorg word beïnvloed.

Eienaarstap ontbreek (**Agentstap**)

Taal ter verwarring → talke nodig.

Gebrak van beredings. — ontrenting kan nie altyd net gee nie.

Studente as workforce gebruik → ↓ idmate.

Gebruik van agentstap werkers → ↓ eienaarstap.

Beoordelers moet excellent wees, want hulle moet dit draf nie

altyd equity nie / BEE / Culture diversity.

Skul agter diskriminering / viktimisering en swak verpleegsorg en word aangegryp.

3

Skilled Staff nie altyd beskikbaar
Motivation + Attitude

Education (lack of)

↓ Resources

Image bad

↓ Std → not clear
↳ Pt + Procedures

↓ Role Modeling

Abuse by
↳ PL
↳ DR
↳ Kollega's

Pt Rights — pt abuse personnel

↓ cm. Anteligsie

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Olydenie — w...
werk nie altyd beskikbaar

— agentskap / moontlike
↳ Kog nie in nie
gee nie on

— Std v opk... skole baie

— himp op pers —
↳ bare swak a

— too many chiefs v

↳ niemand will w

Chiefs v kennist

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is moet
Juniors op te lei na Shv
Vlah

↳ delegasie behant
scope + exp +
skills

— burnout v pers

— eienaarskap v sorg

(versuig)
↳ in staat + put

↳ aantal pte (te veel)

— taal → Kolk = NB

— burnout: beredding / oistening

↳ debriefing NB

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— Skills tekort

— teorie kan nie uit
praktijk uit nie

↳ te vinnige pas in

— e... nie in praktijk i
↳ nie up to date nie

— Rolspelers — nie in pr

— comm — ed. g... hosp) nie

↳ verwagtinge nie duid

— ↓ aandag aan e...
↳ + profes

— Studente Rol onduidelik

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④ Experience - ondervinding - oefen, o
- Theory by die praktyk kan sit - (maak pre
- teorie moet in praktiese manier oorgedra word
- Hy moet visuele prentjies kan sien.
- Knowledgeable lecturers + practical experience
- Role models should be good. → 'monkey see
- Repeating of procedure
- safe working environment → also learn
- the opportunity to be able to do so.
- many people in ward decrease learning
13) ...

6. 11
7. Prattyk → leiding - deel
8. Probleemoplossing: werkwinkels
9. Prattyk onseker oor verwagtinge / doelwitte van
10. Twee verantwoordelike → Prattyk → Beleid
→ opleidingsinstansie
11. Professionele etiket
12. Verantwoordeliks
13. Insig
14. Doel hoekom: daar is → studente → pass
15. Rol uitblaring → prattyk
16. Gebrek aan rolmodelle in prattyk.
17. Buddysisteme:
18. Opvoeding: Rolmodel, begeleiding/fassiliteerde
- 19.

ADDENDUM P: PROJECTED TIMELINE OF STUDY

Target date	Activity	Duration for review
June-October 2012	Revision and resubmission of the proposal	5 months
November 2012	Public defense of proposal and approval	1 month
February 2013	Section 1- overview	3 months
May 2013	Submission of proposal and application to ethical committee for ethical permission	3-4 months
June-December 2013	Section 2 – Manuscript 1	6 months
January 2014	Section 2 – Manuscript 2	6 months
March/April 2014	<u>Data collection</u> Request permission from facilities First meeting– information and consent	2 months
April 2014	Interviews (World Café method) Submission Manuscript 1 to Health SA	1 day
May-June 2014	Data analysis Transcribing/ coding	2 months
July 2014	Section 2 – Manuscript 2 Feedback – disseminating findings and results	1 months
August 2014	Language, bibliography and graphics editing Section 2=Manuscript 2	1 week
	Submission of manuscript 2 to Health SA Gesondheid	
September 2014	Section 3 Manuscript 3:Teaching-Learning strategy	1 month
October 2014	Section 4: conclusions & recommendations	2 weeks
October 2014	Review and corrections section 1-4	1 week
November 2014	Language, bibliography and graphics editing Printing & Binding	2 weeks
November 2014	Submission of manuscript 3 to Health SA Gesondheid	1 week