

**EVALUATION OF THE USE OF GUIDED REFLECTIVE JOURNALS
DURING CLINICAL LEARNING AND PRACTICE BY
UNDERGRADUATE NURSING STUDENTS AT THE DURBAN
UNIVERSITY OF TECHNOLOGY**


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Dissertation submitted in fulfilment of the requirements for the Degree of Master of Technology in Nursing in the Faculty of Health Sciences at the Durban University of Technology.

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Date : May 2014

Declaration

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.



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Dedication

I dedicate this dissertation to the Almighty God, my family, my dedicated supervisors, my colleagues at Indumiso and the students who agreed to participate in the study. My family for their support and perseverance especially Prince who I got to spend very little time with as my first grandson. Fe and Mlondi for keeping me company when I work late although it was an excuse to watch TV.

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- Participants in the study for their participation in the study.

Abstract

Background

The Council for Higher Education and the South African Nursing Council accredit institutions with learning and assessment practices which aim to develop and prepare graduates to be critical thinkers. The undergraduate nursing programme at the Durban University of Technology introduced the writing of reflective journals by their students in 2011. Students submitted journals of poor quality which lacked reflection.

Aim of the study

The purpose of this study was to evaluate the use of guided reflective journals by assessing the levels of reflection of the undergraduate nursing students during clinical learning and practice.

Methodology

An exploratory sequential mixed methods design, using quantitative and qualitative paradigm, was used for this study. A purposive sample of 40 participants was used to collect data. A perceptions questionnaire was administered to the 40 participants to determine their perceptions on how they experienced writing of the reflective journals. Content analysis was used to analyse the written content of the reflective journals. Descriptive statistics such as Chi-square goodness of fit and Wilcoxon Signed Ranks test were used to determine levels of reflections and the differences in the first and second journals. Lincoln and Guba's 1985 criteria for trustworthiness were applied to the study.

Results

Analysis of the journals revealed lower levels of reflection in the first reflective journal compared to improved levels in the second journal. Furthermore, the participants generally expressed writing of reflective journals as a valuable tool in professional, personal development as well as clinical learning. Levels of reflection and development of reflective practice will be greatly enhanced if all involved in nurse education will actively participate in encouraging writing of reflective journals by student nurses.

Table of Contents

Declaration	i
Dedication	ii
Acknowledgements	iii
Abstract	iv
Table of Contents	v
List of Tables	xii
List of Figures	xiv
List of Appendices	xv
Glossary of Terms	xvi
List of Acronyms	x
CHAPTER 1: OVERVIEW OF THE STUDY	1
1.1 INTRODUCTION	1
1.2 BACKGROUND	2
1.3 PROBLEM STATEMENT	5
1.4 PURPOSE OF THE STUDY	5
1.5 RESEARCH OBJECTIVES	6
1.6 SIGNIFICANCE OF THE STUDY	6
1.7 THEORETICAL FOUNDATIONS OF THE STUDY	7
1.8 STRUCTURE OF THE DISSERTATION	8
1.9 CONCLUSION	8
CHAPTER 2: LITERATURE REVIEW	9
2.1 INTRODUCTION	9
2.2 GLOBAL CONTEXT	9
2.2.1 China	9
2.2.2 Australia	9

2.2.3 United Kingdom.....	10
2.2.4 Canada	10
2.2.5 United States of America	11
2.2.6 Malaysia	11
2.3 AFRICAN CONTEXT	12
2.3.1 Ethiopia	12
2.3.2 Tanzania	12
2.3.3 South Africa.....	12
2.4 MODELS OF REFLECTION	14
2.4.1 Schön	14
2.4.2 Mezirow	15
2.4.3 Boud, Keogh and Walker	16
2.4.4 Kolb	17
2.4.5 Hatton and Smith	17
2.4.6 Gibbs.....	18
2.5 USES OF REFLECTIVE JOURNALS	19
2.5.1 Journal use for improving writing skills	19
2.5.2 Journaling and emotional intelligence	19
2.5.3 Journaling and ethical reasoning.....	21
2.5.4 Journaling and the theory/practice gap	21
2.5.5 Journaling and the development of clinical reasoning and clinical judgement in nursing students	22
2.5.6 Journaling and development of higher thinking skills	23
2.5.7 Journaling and personal development	24
2.5.8 Journaling and professional development.....	25
2.5.9 Journaling and students' voices	25
2.5.10 Journaling and nursing education	26

2.6 FACTORS INFLUENCING REFLECTION AND WRITING OF REFLECTIVE JOURNALS.....	27
2.6.1 The student	27
2.6.2 The educator	28
2.6.3 Department of Nursing	28
2.6.4 Clinical environment.....	29
2.7 GUIDED REFLECTION TO IMPROVE THE WRITING OF REFLECTIVE JOURNALS.....	31
2.7.1 Why guided reflection.....	31
2.7.2 The guiding process	32
2.8 ASSESSING JOURNALS.....	33
2.8.1 Reasons for assessing reflective journals	33
2.8.2 Concerns regarding the assessment of journals	33
2.8.3 Towards better assessment strategies.....	34
2.9 THE CONCEPTUAL MODEL WHICH GUIDED THIS STUDY	35
2.9.1 Elements of the conceptual model	35
2.9.2 Justification for using a conceptual framework.....	38
2.10 CONCLUSION.....	39
CHAPTER 3: RESEARCH METHODOLOGY	40
3.1 INTRODUCTION.....	40
3.2 RESEARCH DESIGN.....	40
3.2.1 Mixed methods research strategy	40
3.2.2 Philosophical foundation of mixed methods research strategy.....	41
3.3 STUDY SETTING.....	43
3.4 STUDY POPULATION.....	43
3.5 SAMPLING PROCESS.....	44
3.6 DATA COLLECTION.....	45

3.7 DATA COLLECTION PROCESS	47
3.7.1 Orientation phase	47
3.7.2 Phase 1a:	48
3.7.3 Guided briefing: Number 1	48
3.7.4 Phase 1b:	48
3.7.5 Guided briefing: Number 2	49
3.7.6 Phase 2:	49
3.8 PRE-TESTING OF THE DATA COLLECTION TOOLS	49
3.9 DATA ANALYSIS	50
3.10 INTERNAL AND EXTERNAL VALIDITY OF THE STUDY	51
3.11 CONTENT VALIDITY OF THE RESEARCH INSTRUMENTS	51
3.12 TRUSTWORTHINESS	52
3.12.1 Credibility	52
3.12.2 Dependability	53
3.12.3 Confirmability	53
3.12.4 Transferability	54
3.13 ETHICAL CONSIDERATIONS	54
3.13.1 Beneficence	54
3.13.2 Respect for human dignity	55
3.13.3 Justice	55
3.14 CONCLUSION	56
CHAPTER 4: PRESENTATION OF RESULTS	57
4.1 INTRODUCTION	57
4.2 DEMOGRAPHIC DATA	57
4.2.1 Gender and age	57
4.3 ANALYSIS OF REFLECTIVE JOURNALS	59
4.3.1 Journal 1: Overall levels of reflection	59

4.3.1.1 Journal 1: Levels of reflection in each stage of the Gibbs' Reflective Cycle	61
4.3.1.2 Chi-square goodness of fit test for reflective journal 1	64
4.3.2 Journal 2: Overall levels of reflection	65
4.3.2.1 Journal 2: Levels of reflection in each stage of the reflective cycle...	67
4.3.2.2 Journal 2 Chi-square test.....	70
4.3.3 Comparison of levels of reflection for the two journals	71
4.3.3.1 Wilcoxon Signed ranks test for the two reflective journals	73
4.4 ANALYSIS OF THE PERCEPTIONS QUESTIONNAIRE.....	74
4.4.1 Professional development.....	74
4.4.1.1 Chi square test for professional development.....	74
4.4.1.2 Mean scores for professional development	75
4.4.1.3 Wilcoxon Signed ranks test for professional development.....	76
4.4.2 Personal development	76
4.4.2.1 The Wilcoxon Signed Ranks Test for personal development	77
4.4.2.2 Mean scores for personal development.....	78
4.4.2.3 Descriptive statistics for personal development.....	79
4.4.3 Clinical learning and practice	80
4.4.3.1 The Wilcoxon Signed Ranks Test for clinical learning	80
4.4.3.2 Mean scores for 'clinical learning'	81
4.4.3.3 Descriptive statistics for clinical learning.....	82
4.4.3.4 Combined average scores for both reflective journals	83
4.4.4 Barriers to effective journaling.....	83
4.4.4.1 Mean scores for barriers of effective journaling	83
4.4.4.2 Chi-square goodness of fit test for perceived barriers	84
4.4.4.3 The frequency tables for each perceived barrier of writing reflective journal.....	85

4.5 EMERGING THEMES FROM THE PARTICIPANTS' REFLECTIVE JOURNALS.....	88
4.5.1 Ethical and professional issues	88
4.5.2 Clinical decision making/reasoning	89
4.5.3 Clinical learning.....	90
4.5.4 Student status	91
4.5.5 Availability of learning opportunities	92
4.5.6 Supervision of students	92
4.5.7 Personal development	93
4.5.8 Reflective learning.....	94
4.6 CONCLUSION.....	95
CHAPTER 5: DISCUSSION OF THE RESULTS	96
5.1 INTRODUCTION.....	96
5.2 LEVELS OF REFLECTION	96
5.3 HOW THE REFLECTIVE JOURNALS WERE USED BY THE STUDENTS....	99
5.3.1 Professional development.....	99
5.3.2 Personal development	100
5.3.3 Clinical learning.....	102
5.4 PERCEIVED BENEFITS OF REFLECTIVE JOURNALS	107
5.5 PERCEIVED BARRIERS TO REFLECTIVE JOURNAL WRITING.....	106
5.5.1 Freedom of expression	107
5.5.2 Language and writing ability	107
5.5.3 The time factor	107
5.6 CONCLUSION.....	108
5.7 LIMITATIONS OF THE STUDY.....	109
5.8 RECOMMENDATIONS.....	109
5.8.1 Clinical education	109

5.8.2 Clinical placements of students.....	110
5.8.3 Orientation of staff in the clinical facilities.....	111
5.9 FURTHER RESEARCH.....	111
REFERENCES.....	112

List of Tables

N^o	Heading	Page
1.1	Professional misconduct cases by registered nurses	3
4.1	Participants' scores obtained from Reflective Journal 1	60
4.2	Overall levels of reflection in Journal 1	60
4.3	Chi-Square test statistics for Journal 1	65
4.4	Descriptive statistics for Journal 1	65
4.5	Participants' levels of reflection Journal 2	66
4.6	Overall levels of reflection in Journal 2	67
4.7	Chi-square test statistics for Journal 2	71
4.8	Descriptive statistics for Journal 2	71
4.9	Combined scores for both reflective journals	72
4.10	Differences between the two journal scores	73
4.11	Chi-Square Test statistics for professional development	75
4.12	Mean scores for professional development	75
4.13	Descriptive statistics for professional development	76
4.14	Test statistics for personal development	77
4.15	Average scores for personal development	78
4.16	Descriptive statistics for personal development	79
4.17	Test statistics for clinical learning	80
4.18	Mean scores for clinical learning	81
4.19	Descriptive statistics for clinical learning	82
4.20	Mean scores for barriers of reflective journal writing	84
4.21	Chi-square test statistics on perceived barriers of writing journals	84
4.22	Frequency distribution for 'command of language limited my writing ability'	85
4.23	Frequency distribution for 'writing the reflective journal took too much time'	85
4.24	Frequency distribution for the 'benefits of journaling are not clear to me'	86

4.25	Frequency distribution for 'I feel uncomfortable writing my personal feeling	86
4.26	Frequency distribution for 'I may be victimised when I express my real feelings'	86
4.27	Overview of themes and subthemes	88

List of Figures

N^o	Heading	Page
2.1	Development of clinical skills	31
2.2	Gibbs' Reflective Cycle	36
3.1	Mixed methods design	41
3.2	Mixed methods design for this study	45
4.1	Gender distribution of participants	58
4.2	Gender distribution by age	58
4.3	Journal 1: Overall levels of reflection	61
4.4	Journal 1: Overall performance in each stage of the reflective cycle	64
4.5	Overall levels of reflection in Journal 2	66
4.6	Journal 2: Levels of reflection in each stage of the reflective cycle	70
4.7	Compared levels of reflection from Reflective Journal 1 and Reflective Journal 2.	73
4.8	Average scores for professional development	76
4.9	Overall perceptions for personal development	79
4.10	Overall perceptions for clinical learning	82
4.11	Average on perceived impact of journaling	83
4.12	Average on perceived barriers to journaling	87

List of Appendices

Nº	Heading	Page
1	DUT ethics clearance	127
2a	Permission letter to the Research Director at DUT	128
2b	Approval letter from the Research Director	130
3a	Permission letter to the Head of Department of Nursing	131
3b	Approval letter from the Head of Department of Nursing	133
4a	Permission letter and consent for participants	134
4b	Consent form sample.	135
5a	Marking rubric	136
5b	Guidelines for writing the reflective journal	137
5c	Biographical Data	139
5d	Perceptions questionnaire	140
6	Letter from the statistician	143
7	Data analysed	144

Glossary of Terms

Accreditation: This is the process whereby a professional association or non-governmental body grants recognition to a school or institution for its demonstrated ability in a special area of practice or training. In South Africa, the South African Nursing Council is tasked with the accreditation of all nursing institutions.

Assessment is the process of collecting evidence and making judgments on whether or not competence has been achieved by the student based on set criteria.

Clinical decision/ clinical judgement: Judgment is defined as the best conclusion a nurse can reach at a point in time, given the information available. Clinical decisions refer to those taken by nurses whether for the good or sometimes may harm a patient.

Clinical environment: is the environment in which students perform skills related to needs of patients and provide physical, psychological, spiritual and social support (utilizing a holistic approach) to patients, in order to promote and maintain safe, effective patient care (researcher's definition based on reviewed literature).

Clinical events/ incidents: The actual encounters that students have to deal with during their clinical placement. These were used by the participants in the study to write their reflective journals.

Clinical learning: Part of the educational process that takes place in any practice setting in a hospital or community (SANC 2005). It is achieved through clinical placement of students to spend time in nursing and midwifery practice settings for acquiring and applying knowledge, skills and behaviours and demonstrating competency in the practice of nursing and midwifery (SANC 2005).

Clinical objectives: These are written statements that describe the knowledge or skill a teacher expects an individual to gain following a learning activity.

Clinical setting: A health facility whose primary purpose is the provision of care to patients and is also used to teach clinical skills to students (SANC 2005: 1).

Clinical supervision: The assistance and support extended to the student by the professional nurse or midwife in a clinical facility with an aim of developing a competent and independent practitioner (SANC 2005: 1).

Competence: This includes the knowledge, skills and attitudes that enable an individual to perform a role or a task up to a defined level (Uys 2004: 29). Competence in this study refers to holistic learning that occurs at the cognitive, affective and psychomotor level.

Critical thinking is an ability to analyse information and experiences in an objective manner. Critical thinking can contribute to health by helping us to recognise and assess the factors that influence attitudes and behaviour, such as values, peer pressure and the media.

Emotional intelligence: Emotional Intelligence (EI) is a sophisticated example of self-awareness, which also includes an awareness of others and a tacit understanding of the relationship between 'intra' and 'inter' personal dynamics. The emotional distress that comes from competing values in health care is very likely to be better recognised and managed by the person who is emotionally intelligent.

Ethical Dilemma: According to the Royal College of Nursing as cited by Callister et al. (2009), an ethical dilemma incorporates a human element that exists when the choice involves differing personal principles, feelings and personal beliefs about what is good and right about a given situation.

Ethical reasoning: The ability to deal effectively with ethical dilemmas and empower them with the knowledge and skills to act ethically in clinical practice (Callister et al. 2009).

Graduate: One who has received an academic and professional qualification in an institution of higher learning (SANC 2005).

Reflective clinical learning: The process of internally examining and exploring an issue of concern, triggered by an experience, which creates and clarifies meaning in terms of self, and which result in a changed conceptual perspective (Boyd and Fales 1983: 99).

Registered nurse/ professional nurse: A person registered with the SANC as a nurse under Article 16 of *Nursing Act, No 33 of 2005*, as amended (Republic of South Africa 2005). The terms 'registered nurse' and 'professional nurse' are used interchangeably.

Role models: role models are people who usually hold positions that can be observed and followed by those who admire them. In nursing, these are professional nurses who according to Searle and Pera (as cited by Lekhuleni et. al. 2004), must have the required knowledge, skills, integrity, personal behaviour, neatness, empathy, sympathy and willingness to assist wherever their knowledge and skills are needed, and to be collaborative.

Rubric: A scoring tool that teachers use to assess student learning after a lesson. Using a set of criteria and standards (directly tied to the stated learning objectives), educators can assess each student's performance on a wide variety of work, ranging from written essays to class projects (Collin's English Dictionary 2006)

Self-awareness: Complex, dynamic integration of conscious and unconscious feelings, attitudes, and perceptions about one's identity, physical being, worth, and roles; how people perceive and define themselves.

South African Nursing Council: The body entrusted to set and maintain standards of nursing education and practice in the Republic of South Africa. It is an autonomous, financially independent, statutory body, initially established by the

Nursing Act, No. 45 of 1944, and currently by the Nursing Act, No. 50 of 1978 as amended (Republic of South Africa 2005).

Student nurses: The term 'student nurses' refers to persons following the programme leading to registration as a nurse (general, psychiatric and community) and midwife in terms of Regulation R425 of February 1985, as amended.

Theory: Refers to a set of concepts, definitions, relationships, and assumptions or propositions that project a purposive, systematic view of phenomena by designing specific interrelationships among concepts for the purposes of describing, explaining, predicting, and/or prescribing. In the context of this study, it refers to the classroom knowledge acquired by the student.

Undergraduate: According to the Oxford Dictionary, an undergraduate is a student who is studying towards their first degree at a university. The undergraduate students in this study refer to the second year students who are studying towards the Bachelor of Technology Degree at the University.

List of Acronyms

Acronym	Full Name
CHE	Council for Higher Education
DOH	Department of Health
DUT	Durban University of Technology
KZN	KwaZulu-Natal
RJ	Reflective Journal
SANC	South African Nursing Council
SAQA	South African Qualifications Authority
WHO	World Health Organisation

CHAPTER 1: OVERVIEW OF THE STUDY

1.1 INTRODUCTION

The nurse is the backbone of the health service (Department of Health 2012: 9). Not only is the nurse the first person a patient comes into contact with when they seek assistance, but she is the one who keeps watch over the patient twenty four hours a day. The undergraduate nursing students are being prepared to become registered nurses when they complete. On completion, the South African Nursing Council (SANC) expects these students to assume a leadership role in nursing and practice independently with accountability and responsibility (SANC 1985). Their role demands critical thinking skills in order to become reflective practitioners who are always conscious during their practice or reflecting-in-action (Schön 1983). For quality health care, the registered nurse is expected to assess, plan, implement and evaluate nursing care in collaboration with individual/s and the multidisciplinary health care team so as to achieve goals and health outcomes (SANC 1985). The media is full of ill reports about nursing and the public is gradually losing trust towards nurses (Department of Health 2012: 24). The health care system is faced with many challenges in the 21st century with technological advances and diseases. Being a nurse has, therefore, become very complex and challenging and fraught with malpractice and professional misconduct (SANC 2008).

Bulman (2008:164) and Bolton (2005:23) describe reflective learning journals as written documents that students create as they think about various concepts, events or interactions over a period of time for the purposes of gaining insights into self-awareness and learning. Writing down moves information from being theoretical, to awareness and then to practical application. Writing sharpens perspectives, breaks things down into clearer elements and brings up further questions which facilitate learning (Liz as cited by Bolton 2005:166).

Reflective practitioners are able to learn and develop through examining what they think happened with each clinical encounter and how they think others perceived the event, opening their practice to scrutiny by others, and studying texts from the wider sphere (Bolton 2005: 7). Reflection provides an excellent way for students to analyse care and increase their abilities to make clinical judgements. Reflective journaling is a strategy used often in clinical education to gain insight into students' critical thinking and professional development (Lasater and Nielsen and Nielsen 2009).

1.2 BACKGROUND

The complexity of the health care environment and the knowledge explosion occurring today creates a situation in which nurses must be able to solve complex problems and apply previously learned knowledge to new and different situations. The ability to teach nursing students how to think critically is an important educational objective and is required by the South African Qualifications Authority (SAQA 1995) and SANC (SANC 2005).

The media is full of ill reports about nursing wrong and the public is gradually losing trust of nurses. Departments of Health are being sued left and right for cases of negligence. Bloom in *Mail and Guardian* (2013) states that the Gauteng Department of Health was facing 3.7 billion Rands in litigation, while Mgaga writes in the *Times* (2013), that the KwaZulu-Natal (KZN) Department of Health faces 1.1 billion Rands in claims. These are indications of a health system in crisis and highlight the need for more skilled staff to reclaim the noble name of the nursing profession. Table 1.1 displays cases of professional misconduct by registered nurses (SANC 2008).

Table 1.1: Professional misconduct cases by Registered Nurses (SANC 2008)

Type of offence	Number of cases
Education related	18
Fraud/forgery	17
Maternity related	128
Medication related	105
Physical assault of colleague	5
Physical assault of patient	8
Poor basic nursing care	286
Sexual abuse of patient	15
Theft	2
TOTAL	629

Table 1.1 highlights the need for reflective practitioners who will be able think and consider their actions carefully or reflectively to make sound clinical reasoning and judgements, preventing such occurrences (Levette-Jones and Lathleen 2008; Lasater and Nielsen 2009). Clinical reasoning includes calculative thinking which “is deliberate and involves managing a given situation and applying knowledge to problem solving”, as well as contemplative thinking which may be described as “spontaneous and explores the meaning of the situation” (Pierson as cited by Nielsen, Stragnell and Priscilla 2007: 513). Reflective practitioners make better clinical decisions to prevent jeopardizing the patient and putting themselves through disciplinary measures. There is therefore, a need to re-visit traditional teaching and assessment strategies in order to meet these challenges (Khanyile and Mfidi 2005). Time has come to produce graduates who, over and above practical skills, are reflective practitioners who can think critically and make sound clinical decisions, a practitioner who has developed good personal and professional skills (Kautz, Kuiper, Daniel, Pesut, Knight-Brown and Daneker 2005; Jasper and Paul 2011). Undergraduate nursing students are the future registered nurses and therefore interventions must be made early before they complete their training.

Levette-Jones and Lathleen (2008) asserts that reflective practice is a crucial professional activity and that reflection is intrinsic to learning. Bolton (2005), Boud, Keogh and Walker (1999) and Dewey (1993) argue that students will benefit from reflective training to become critical thinkers who are able to process their experience, explore their understanding of what they are doing, think about why they are doing it and the consequences involved to themselves, patients and

the profession. They will then be able to always question their own actions and the actions of others. The next obvious step is proceeding to review their actions and commissions with the aim of improving their own practice. Cases of neglect and professional negligence should decline if more reflective graduates and therefore professionals are produced.

Reflective learning journals refer to written documents that students create as they think about various concepts, events or interactions over a period of time for the purpose of gaining insights into self-awareness and learning (Bulman and Schutz 2008: 164). Mezirow and Associates (2000), Bolton (2005); Bulman and Schutz (2008); Harris (2005) and Chabeli and Muller (2004), agree on many positive benefits of journaling and thus support journals as instruments for reflective learning and critical thinking. Common in their studies are the following findings: professional, cognitive and affective development; making connections through text and journals; increased awareness of contextual 'space'; active engagement with issues; connecting with self and others. Writing has many other benefits such as means of self-expression and increased vocabulary and promoted use of dictionaries and thesauruses. Writing sharpens perspectives, breaks things down into clearer elements and brings up further questions which facilitate learning (Liz as cited by Bolton 2005: 166). Lasater and Nielsen and Nielsen (2009) state that reflection provides an excellent strategy for students to analyse their actions and increase their abilities to make sound clinical judgments.

Considering the known benefits and challenges of reflective learning and journaling, assessment of journals requires careful planning, support and guidance of learners who may or may not have engaged in this task before. Guided reflection is essential to clarify the purpose of reflection, to dispel myths of journaling and to help the student to write freely. In a study to better understand and help plan for academic success of students, the Council for Higher Education [CHE] (Department of Health 2010: 2) discovered that students have difficulty with independent reading and research, display low levels of information literacy and find it difficult to select and analyse information appropriately. Furthermore, writing was identified as problematic and a challenging task for assessment strategy. It is

therefore important that expectations of what writing a journal involves are clear for the students.

CHE (2010) requires that “programmes promote graduates’ successful integration into the world of work and enable graduates to make meaningful contributions in contexts of development”. It is, therefore, imperative that innovative curricular, teaching, learning and assessment practices are developed to prepare graduates to meet these global trends. The Durban University of Technology [DUT] (DUT 2012) has embraced this as a requirement for university programmes and qualifying graduates and for the undergraduate nursing programme. It is with this in mind that one of the requirements for clinical competence is reflective journals. Believing that critical thinking is an essential outcome for nurses, the SANC (2005) makes it a pre-requisite for accreditation of nursing education institutions.

1.3 PROBLEM STATEMENT

The undergraduate nursing programme is in its fourth year at DUT. Reflective journal writing was introduced in the second semester of 2011 to nursing students who were in their first year of study. The process of reflective journaling was introduced in the form of a workshop, with the students as active participants. Discussions followed to guide and clarify misunderstandings. The submitted journals were mainly narrative and lacked reflection. Although journal writing was used in the first year, the researcher realised that a much more rigorous framework needed to be designed to successfully assist students to develop reflective qualities.

1.4 PURPOSE OF THE STUDY

The purpose of this study was to evaluate the use of guided reflective journals by assessing the levels of reflection and the perceptions of undergraduate nursing students using reflective journals during clinical learning and practice.

1.5 OBJECTIVES OF THE STUDY

The objectives of this study were to:

- Determine undergraduate nursing students' levels of reflection at the beginning of reflective journal writing.
- Determine undergraduate nursing students' levels of reflection at the end of a semester clinical placement.
- Assess undergraduate nursing students' perceptions of reflective journal writing with regard to personal and professional development as well as whether reflective journaling has influenced their clinical learning.

1.6 SIGNIFICANCE OF THE STUDY

SANC (2005) and SAQA (1995) concur that nurses need to be trained in a manner that “promotes critical thinking in order to develop nurses who are critical, reflective analytical thinkers” (SANC 2005). The first Critical Cross-Field Outcome (SAQA 1995) adds that the graduates must be able to identify and solve problems using critical thinking and decision making. Reflective teaching which includes writing and assessment of reflective journals is one of the strategies that can be effective in developing such reflective practitioners. A collaborative effort by all involved in the training of student and professional nurses in the clinical setting must be made in order to promote reflective practice (Mashaba and Brink 1994). In this way, students will be fully supported in becoming reflective practitioners who will practice with responsibility and accountability, be critical thinkers, self-directed and engage in problem-solving as well as practice with clinical reasoning and make effective clinical decisions.

The SANC controls nursing education in South Africa through approval of training institutions and clinical facilities, overseeing training and assessment of students and certification (SANC 2005). Nursing requires clinical placement of students in approved clinical facilities, in order to fulfil the clinical component and to ensure production of competent nurses. Application of theory learnt in the classroom occurs during clinical placement through observation and practising under

supervision of trained staff. Reflective journals have been proved by scholars in the subject and researchers as a valuable tool to enable a student to make sense of every clinical encounter to ensure that clinical learning and professional development takes place (Mezirow and Associates 2000; Bolton 2005; Bulman and Schutz 2008; Harris 2005; Chabeli and Muller 2004). The end product expected from reflective journaling is a reflective practitioner who can think critically and make sound clinical decisions.

In embarking on this study, the researcher hoped to shift the level of the journals from a mere narrative to a more critical level of reflection. The study hopes to add to the body of literature with regard to assessment of reflective levels of undergraduate nursing students as well as perceptions of students with regard to the use of reflective journals in the clinical area. Results could guide nurse educators and clinical facilitators in developing a suitable framework for guiding students to become reflective practitioners. The findings of this study will assist in providing information on the use of guided reflective journaling by undergraduate nursing students during their clinical learning. Encouraging the writing of reflective journals will enhance clinical learning as well as personal and professional development of students during clinical placement.

1.7 THEORETICAL FOUNDATIONS OF THE STUDY

Gibbs' Reflective Cycle was selected by the researcher as an appropriate framework to guide student participants and for the assessment of reflective journals. This framework allows the student to understand the implications of, and proceed to action plans arising from, the situation (Bulman and Schutz 2008: 226). It was hoped that the students will have direction and be stimulated to organize their thoughts and their writing.

Gibbs' Reflective Cycle emphasizes that both the event and the feelings are vital for effective reflection to occur. The clinical environment is filled with emotions due to the nature of nursing; it is therefore not possible while carrying out nursing activities to divorce feelings from the equation. This model was used for its

simplicity and easy-to-follow steps to assist undergraduate nursing students to understand and develop personally and as reflective thinkers ultimately become reflective practitioners. The framework is discussed in detail in Chapter 3.

1.8 STRUCTURE OF THE DISSERTATION

Chapter 1: Introduction and background to the study.

Chapter 2: Literature review.

Chapter 3: Research methodology.

Chapter 4: Presentation of results.

Chapter 5: Discussion of results, conclusion, limitations, and recommendations.

1.9 CONCLUSION

This chapter presented a background on reflection, reflective practice and writing of reflective journals. This study seeks to evaluate how undergraduate nursing students use the writing of their reflective journals during their clinical learning with regard to levels of reflection reached at the end of two journals as well as perceptions of the students regarding personal, professional development as well as clinical learning. In Chapter 2 literature reviewed by the researcher will be discussed.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter discusses literature reviewed for this study. Studies involving reflective learning and reflective journaling will be reviewed. For this particular study, the focus on the use of guided journals by undergraduate nursing students during their clinical learning will be discussed to gain insight into development of reflection, the assessment of reflective journals as well as the impact of writing reflective journals as perceived by the students.

2.2 GLOBAL CONTEXT

2.2.1 China

Studies reviewed by Chan (2013: 238-239) on critical thinking in nursing education, highlighted challenges to critical thinking and classified these into four categories. Firstly students who are socialised into avoiding questioning of teachers and seniors find it hard to seek information and this may hinder their clinical learning and therefore critical thinking. Secondly, educators hinder learning and critical thinking if they are not open-minded, inflexible, non-supportive and unapproachable. Thirdly, students who were previously taught the traditional method of lecturing and teacher-dependency, require orientation and guidance when they have to face new teaching methodologies like self-directed learning and critical thinking. Fourthly, a threatening learning environment where the student is unable to express themselves freely, is discouraging and suppresses learning and critical thinking.

2.2.2 Australia

McKenna et al. (2013: 882-883) explored journals for a sense of belongingness of midwifery students during their clinical placements, as this is a vital factor in

clinical learning. Findings revealed that students learn better in clinical environments which are welcoming and supportive. They feel valued and seek information from senior clinical staff. This study recommends that the sense of belonging must be promoted by nurse educators to dismiss feelings of fear and anxiety during clinical learning which may greatly impair clinical learning.

Successful journaling depends largely on the student being an understanding and active participant otherwise the purpose will be defeated. Stewart and Richardson as cited by Dymont and O'Connell (2010: 242) mentioned that students must have a clear understanding of the purpose and expectations of journaling before they embark on writing. The educator plays a pivotal role in providing adequate guidance otherwise the quality of journals will be poor. They need to know in advance who will read their journal so that they order their thoughts well. If the journal is for assessment, clear guidelines must be given as well as the grading criteria to be used, this way they will not feel robbed. Friere and Dewey as cited by Dymont and O'Connell (2010: 243) add that students need to be stimulated and assisted towards deep reflection as this does not come naturally with most students.

2.2.3 United Kingdom

Nurse education taking place in universities is in danger of producing graduates who are not critical thinkers and Morrall and Goodman (2013: 935) is concerned that if drastic steps are not taken by stakeholders, nursing will suffer a great deal. The study criticizes the capitalization of universities where students are considered as customers because of the funding that comes to institutions. The filling of university seats becomes more important than attention to critical thinking.

2.2.4 Canada

In a study of challenges to effective clinical learning, Killam and Heerschap (2013: 686) list the following; late notification of clinical placement, exhaustion due to many demands on the time of students and having to complete assignments whilst

having to report for placement the following day. Fear and anxiety were also reported by learners resulting from unfriendly clinical environments and experiences. In addition, students were sometimes given tasks beyond their scope of learning resulting in uncertainty and despair.

This study further stated that clinical learning was severely hampered by educators' approach such as being too strict or having favouritism; lack of attention to all students when groups are too large resulting in deficient feedback, incompetence and some students getting away with poor ethical behaviour. Lack of practice time affects confidence to perform some critical skills under supervision before encounters with patients in clinical settings. Regarding reflective journaling, the participants in this study felt the writing of journals was a useless and time wasting exercise which did not impact their clinical learning. They submitted haphazardly done and sometimes copied work as they felt they had to rush through them to submit the required number.

2.2.5 United States of America

The critical incident technique was used by Kemppainen (2000: 1264) who found it to be valuable in assisting students in four important aspects of their clinical learning. Firstly, learning to gather information from patients with regard to how they are being cared for by health care staff. Secondly, students can learn about patient responses and perceptions of their illnesses and factors surrounding decisions taken can be appreciated. Thirdly, human interactions between nurses and patients can be analysed. Fourthly, a clearer perception of the dynamics of the nurse-patient relationship and the changing health care environment can be magnified by using the critical incident technique.

2.2.6 Malaysia

Chong (2009: 117-118) successfully used Gibbs' Reflective Cycle to elicit perceptions of reflective practice from students. Participants supported the use of

reflective journals for clinical practice. Concerns were raised regarding time constraints, lack of supervision and feedback from mentors and lectures.

2.3 AFRICAN CONTEXT

2.3.1 Ethiopia

The findings of Birbirso (2012: 886) reveal that student teacher training can be greatly enhanced by reflective journaling followed by discussions. Language support was offered to students who were struggling with English skills to enable them to connect their theory and practice and consequently improve their reflection.

2.3.2 Tanzania

In the quest to pursue reflective studies, Otienoh (2009: 483-485) found very few related studies in Tanzania although the concept is widely known in other parts of the world. Lack of exposure to the concept was evident from the poor classroom practices and professional ethics as reported by the local Ministry of Education and Culture. Findings cited reasons for this as follows; lack of time for reflective journaling due to heavy workloads, duration of their programme was only six months and they felt by the time they completed, they had not grasped the concept and the process of reflection. Facilitator's gave discouraging feedback, and the purpose for journaling was not very clear. The study recommends that a joint effort to improve reflection and reflective practice is necessary and must be integrated in the lesson plans and scheme of work.

2.3.3 South Africa

There are several South African studies which are related to reflective learning, reflective journals and clinical learning. Some of these studies will now be discussed. Chabeli (1999: 25-28) explored challenges facing students in clinical practice and shared the following findings which affected their reflective thinking

abilities; loss of supernumerary status impinges on adequate time to focus on clinical learning as students are involved in tasks allocated to them. Clinical environment with poor relationships between student and staff affects freedom to learn and question freely. In extreme cases, Mabuda, Potgieter and Alberts (2008: 22) state that “student nurses were called names, harassed, and were in most instances used as scapegoats for any wrong-doings in the wards”.

Disappointing and non-supportive attitudes and poor role modelling by professional nurses affect learners who as a result lose confidence and trust towards these seniors. Mabuda, Potgieter and Alberts (2008: 24) reiterated this, adding that the professional nurses even verbalised that they were not paid to teach student nurses, that they were short staffed and overworked. Netshandama (2010: 84) emphasises that establishing caring relationships is the key to creating caring and supportive clinical learning environments which is conducive to student learning. In both studies (Chabeli 1999; Mabuda, Potgieter and Alberts. 2008) students discovered that the knowledge displayed by professional nurses lacked in closing the theory-practice gap and therefore impacted on their reflective thinking. Inconsistent and inefficient supervision of students stunted the development of student in clinical learning and sometimes students were left to perform clinical procedures on their own. Netshandama (2010: 84) recommends a collective effort by nurse educators and registered nurses in the clinical setting to ensure a conducive clinical environment for clinical learning opportunities to be fully utilised by student nurses during their placement. The nursing process which is seen as a valuable tool for an orderly and analytical method of patient care is gradually losing its value due to incompetent professional nurses who lack skills and knowledge to effectively use this tool.

In another study, Chabeli and Muller (2004: 84) highlighted the close connectedness and interconnectedness of critical thinking and reflective thinking. The author argues that it is almost impossible to separate the two. The aim of both critical thinking and reflective thinking is to change the perspective of the individual. Critical thinking incorporates reflective dimensions involving both the cognitive and affective domains with the aim of developing a changed perspective.

Through critical thinking, one studies the situation and logically analyses what happened in the process of finding a solution. In this way, thinking is reshaped and new judgements are arrived at. The need to assess development of critical and reflective thinking was recommended in this study.

Fakude and Bruce (2003: 53-54) used Gibbs' Reflective Cycle as a guide to assess journal entries. A high percentage of students succeeded in the description of the clinical event and expressing their feelings. Students scored very low in exploring alternatives and developing a new perspective and actions if the same experience recurs. The conclusion was that students had difficulty in reaching higher levels of reflection.

2.4 MODELS OF REFLECTION

Reflection and reflective learning has been found to be beneficial by many researchers and reflective teaching-learning scholars (Schön 1983; Gibbs 1988; Mezirow and Associates 1990; Driscoll 2002 and Johns 2010). These authors agree that reflection is an integral ingredient of learning. Through reflection the learner is able to purposefully consider a situation or an experience, make sense of it and grow from it personally and professionally. Their models of reflection have been widely used by researchers interested in reflection, reflective practice and reflective journaling. For the purpose of this study, a few of these researchers will be cited here.

2.4.1 Schön

Schön refers to two main processes of reflection; *Reflection-in practice* occurs in association with action and guides the process of action via knowledge in use (Schön as cited by Moon 1999: 45). *Reflection-in-action* assists the student to think while the incident occurs. The second type being *Reflection-on practice* occurs after action. It helps to consider what has happened to prevent future occurrences by using knowledge gained (Schön 1983).

2.4 2 Mezirow

Mezirow (as cited by Boud, Keogh and Walker 1999: 25) described seven levels of reflection: the first level he calls *Reflectivity* defined as the act of becoming aware of a specific perception, meaning or behaviour of our own or habits we have of seeing, thinking or acting. Secondly, *Affective Reflectivity* is becoming aware of how we feel about the way we perceive, think or act or about our habits of doing so. Thirdly, *Discriminant Reflectivity* is assessing the efficacy of our perceptions, thoughts, actions and habits of doing things; identifying immediate causes; recognising reality contexts in which we are functioning and identifying our relationships in the situation. The fourth level is *Judgmental Reflectivity* which is becoming aware of our value judgments about our perceptions, thoughts, actions and habits in terms of their being liked, disliked, beautiful or ugly, positive or negative. The fifth level is *Conceptual Reflectivity* which is to become conscious of our awareness and critiquing it as, for example when we question the constructs we are using when we evaluate another person. The sixth level, *Psychic Reflectivity*, is recognising in oneself the habit of making judgements about people on the basis of limited information about them, and recognising the interests and anticipations which influence the way we perceive, think or act. The final level is *Theoretical Reflectivity* which is becoming aware that the reason for a habit of precipitant judgement or for conceptual inadequacy is a set of taken-for-granted cultural or psychological assumptions which explain personal experience less satisfactorily than another perspective with more functional criteria for seeing, thinking and acting. The first four levels are considered consciousness, a more basic level than the last three levels that are deemed critical consciousness or heightened awareness. For a transformation of perspective to occur, one must achieve theoretical reflectivity.

Mezirow and Associates (1990) argues that for transformation of learning to occur, the learner needs conscientization in order to be aware of the social context of the clinical environment. The learner is the only person who eventually has to decide to learn, others create environments for learning to take place.

2.4.3 Boud, Keogh and Walker

According to Boud, Keogh and Walker (1999: 18), an experience consists of: the *total response* of a person to a situation or event, what s/he/ thinks, feels, does and concludes at the time or thereafter. A *processing phase*: this is the area of reflection. During this phase, the person recaptures their experience, thinks about it, mulls over it and evaluates it (Boud, Keogh and Walker 1999: 19). During this reflective processing phase the person returns to the experience by a recollection of salient events and replaying of the events in the mind, followed by attending to feelings about the situation which may be positive or negative. Then follows *evaluation of the experience* after sorting what was good and bad about the experience and utilizing the good (Boud, Keogh and Walker 1999: 26). *Re-evaluating the experience* involves re-examining the experience in the light of the learner's intent, associating new knowledge with existing knowledge and integrating this new knowledge into the learner's conceptual framework. This shapes not only the learners thinking frame but pattern of behaviour and understanding. Lastly, the outcome after a reflective process should produce a *new perspective* on the experience, a change in behaviour, and a readiness for application of newly acquired knowledge and understanding to action (Boud, Keogh and Walker 1999: 34).

The reflective process does not occur in a vacuum. The student presents in the clinical environment with past experiences, coming with their own behaviours and motivations, habitual ways of thinking and therefore perceptions (Boud, Keogh and Walker 1999: 21-24). These factors must be considered as they will influence the outcomes negatively or positively.

Negative past experiences will affect how the student approaches the clinical environment, how people involved are perceived and this will then impact on the outcomes. Conversely, positive past experiences will positively influence the reflective process and outcomes. Past experiences may affect confidence and self-esteem levels of the student. Just like everybody else, students come with habitual ways of thinking and this shapes their perspective.

2.4.4 Kolb

According to Kolb (1984) as cited by Thompson (2000: 5), transformation is possible through a learned experience. The person's first encounter is *concrete experience* described as a receptive, experience based approach to learning that relies for a large part on judgements based on feelings. This is based on the premise that learning is based on life experience rather than just formal opportunities for learning (Thompson 2000: 5). This is followed by *reflective observation* described as a tentative, impartial and reflective approach to learning. These learners rely on careful observation of others and/or like to develop observations about their own experience. This means that effective learning will not take place unless we actually think about the experience and make sense of it (Thompson 2000: 5). Thirdly, *abstract conceptualization* is an analytical, conceptual approach to learning: logical thinking, rational evaluation. These learners are oriented to things rather than to people. Reflecting on the experience allows broader and deeper consideration of the issues arising from the experience, including the implications of the concrete experience and evaluating its relevance and validity (Thompson 2000: 5). The last response is *active experimentation* which is an active, doing approach to learning that relies heavily on experimentation. At this stage, the new learning is tried out in practice and translated into concrete reality (Thompson 2000: 6).

2.4.5 Hatton and Smith

Hatton and Smith (as cited by Taylor-Haslip 2010) describe four levels of reflection that can be used to analyse the reflective journal writing of students. The first level is *descriptive writing*, which is a mere report of events with absence of reflection and no discussion beyond description (Moon 1999). The second level is *descriptive reflective writing* described as reflection that attempts to provide reasons, often based on the students' personal judgment. The student may either reflect or rationalize on one perspective factor or multiple factors and perspectives (Moon 1999). The third level is *dialogic reflective writing* which takes the form of conversation that the student may have with her/himself. There is less time

reporting events and more time discussing experiences. Possible rationales for their actions are delved into and a deeper understanding of concepts is brought to light. Reflection is analytical or integrative, linking factors and perspectives, but may be inconsistent in providing rationales and critique (Moon 1999). The fourth level is *critical reflective writing*, which incorporates clear rationales for actions and decisions, and considers multiple historical and socio-political contexts of the student's experience. Students writing at this level of reflection go beyond a single personal perspective. They demonstrate awareness that actions and events are not only located within and explainable by multiple perspectives, but are located in and influenced by multiple historical and socio-political contexts (Moon 1999).

2.4.6 Gibbs

To help guide the students in this study, Gibbs' Reflective Cycle (Gibbs 1988) was utilised. This model of reflection (as cited by Mantzoukas and Jasper 2004) suggests that reflection is a process with six distinct steps:

- i. The description of what happened;
- ii. Feelings experienced during the incident;
- iii. Evaluation of what was good or about the experience;
- iv. Analysis or sense making of the situation;
- v. Conclusions; and
- vi. Action plan for future practice.

These steps will be further elaborated on in the conceptual framework.

O'Connor (2008) used Gibbs' Reflective Cycle (1988) to guide her study as she found it straightforward and encouraged a clear description of the situation of a very emotional critical incident. Various emotional stages that students pass through when learning from experience were clearly stated. Wilding (2008) admires Gibbs' model for its practical application that can even be followed by a first year nursing student and result in deep learning. Fakude and Bruce (2003) followed the same tool to assess the students' ability to reflect through journaling.

2.5 USES OF REFLECTIVE JOURNALS

Journals have been explored for various reasons by researchers to determine their use by students and faculty. Specialists in the field of reflection have alluded to the benefits of journal use. A few of the reasons for the use of journals will be discussed hereunder.

2.5.1 Journal use for improving writing skills

Moon (1999) and Bolton (2005: 166) agree that the act of writing enables the student to identify personal learning needs and to somehow seek means of meeting these needs. In this way the learner engages actively in their own learning. Reflective writing therefore creates a fertile ground for learning. McMillan-Coddington and Weyers (2013: 225) add that through active participation, learning becomes more student-centred and the learner owns and appreciates their efforts. Harris (2006: 460) states that journaling improved learning when students increased vocabulary and the use of dictionaries. This improved their application of theory to practice.

According to Moon (1999) and Boud, Keogh and Walker (2000: 52), journal writing although it may be initially superficial, will force development of deeper thinking and therefore reflection. The learner thinks about the initial experience and then returns to focus attention on describing what actually happened, the reason for the incident and then continues to analyse and develop new perspectives on the experience. Furthermore, higher order thinking skills are developed as the students' questions explore and analyse all aspects of the experience (Moon: 1999; Bolton 2005: 166).

2.5.2 Journaling and emotional intelligence

Human interactions and human suffering is inevitable in the clinical environment. Nurses interact with each other and with patients and emotions may run high. To

meet challenges of the 21st century, emotional connection with patient, families and the multidisciplinary team is vital in nursing (Harrison and Fopma-Loy 2010).

Goleman as cited by Chabeli (1999: 24) describes emotional intelligence as “the capacity for recognising our own feelings and those of others, for monitoring ourselves, and for managing emotions in ourselves and in our relationships”. Chabeli (1999: 24) states that “feelings are products of thinking, and through thinking feelings can become altered”. The ability to maintain a balance under stress does not come naturally for many but can be cultivated. Findings in a study by Harrison and Fopma-Loy (2010) revealed that the reflective journals of students can be explored to expose development of emotional intelligence. Subordinates fare better if the leader role models emotional balance when confronted with stress in the workplace. Emotions are a permanent factor in nursing and cannot be replaced although there are technological advances.

Boud, Keogh and Walker (2000: 52) states that during reflective writing the role of feelings are appreciated, feelings are named and owned. Awareness of feelings in some instances is at the beginning or/and at the end of account. The writer explains why they felt that way; feelings are weighed for their good or bad ‘effect’ on the learning process, and a learner can then deal with them.

Bagnato, Dimonte and Garrino (2013) tested journals of students using Mezirow’s levels of reflexivity. Seventeen percent achieved level two or affective reflexivity demonstrating the ability to recognise and describe their feelings. This also endorses the vital impact of feelings and the liberating effect of venting them in the personal development of the student.

Stage two of Gibbs’ Reflective Cycle will examine the feelings of the students and how this will apply to the undergraduate students under study.

2.5.3 Journaling and ethical reasoning

Ethics is one of the subjects in nursing which are best learned by observing behaviour and decisions in clinical practice. When a student nurse joins the profession, she comes with her/his own beliefs and values and through clinical experiences; she/he will slowly develop to be ethically sound. Ethical dilemmas, and how they are resolved by professional nurses, will instil professional values into the undergraduate nursing student. Callister, Luthy, Thompson and Memmott (2009) analysed journals to observe if students recognised ethical dilemmas and critically analysed their role and that of others during an ethical dilemma. Participants in this study demonstrated self-introspection and learning of how ethical dilemmas were resolved by caring practitioners in practice. After analysing the reflective journals of nursing students, Callister *et al.* (2009: 507) concluded that “reflective practice provides a way for caring individuals to explore and confront their own caring beliefs and how these beliefs are executed in practice”.

According to Craft (2005: 15), the clinical environment may be emotionally charged due to low staffing and shortage of equipment. Through reflective writing, students are able to have an emotional outlet thereby learning to cope. This way ethical development of nursing students is enhanced.

2.5.4 Journaling and the theory/practice gap

Clinical placement affords nursing students opportunities for applying theory learnt in the classroom to real life situations and therefore promotes competency. Patton, Woods, Agarenzo and Brubaker (1997) and McKenna, Gilmour, Biro, McIntyre, Bailey, Jones, Miles and McClelland (2013: 880) agree that clinical placements form a large and integral part of clinical learning. The findings of Kear (2013: 1083) indicated that students perceived that the greatest learning and transformation occurred through experiential learning with humans.

The findings of a study conducted by Chabeli and Muller (2004: 69) showed that participants found that reflective journal writing facilitated not only their thinking

processes but also connected clinical experience with previous knowledge. Dhavana-Maselesele, Tjallinks and Norval (2001: 6) recommended that innovative strategies be found to facilitate clinical learning as sometimes students experienced problems in connecting theoretical contents to the clinical situation e.g. related anatomy and physiology.

Mashaba and Brink (1994: 141) agree that reflective journals are aimed at helping the student to observe and record as many facts about daily practice as the student finds relevant. The students are therefore able to build on their information regularly. Reflective journal writing can therefore be used as a tool to evaluate that clinical learning is actually taking place and what challenges students are experiencing which may influence their learning.

2.5.5 Journaling and the development of clinical reasoning and clinical judgement in nursing students

Clinical reasoning, clinical judgement and professional judgement have been used interchangeably in nursing and are vital professional skills for reflective practitioners. Armed with such skills, Khanyile and Mfidi (2005: 75) assert that the nurse is “able to deal with increasing complexities of nursing practice today”. According to Lasater and Nielsen and Nielsen (2009: 42), faculty can elicit students’ thinking and clinical judgment development from reflective journals and recommends early introduction to guide and support students. The study by Khanyile and Mfidi (2005: 76) revealed that as students’ progress from first year to fourth year, their clinical reasoning abilities improve. Tanner as cited by Nielsen, Stragnell, and Priscilla (2007: 514) asserts that clinical judgments often “are more influenced by what the nurse brings to the situation than the objective data at hand”. Nursing students should have an awareness of their own values, biases, and experiences and how these affect individual thinking about a situation.

2.5.6 Journaling and development of higher thinking skills

Brown and Sorrell (1993) support the use of clinical journals as a strategy through which faculty can teach critical thinking. These authors recommend structuring of clinical journal assignments to enhance the analysis and evaluation of clinical practice, theory, and research. Chabeli (2006: 78) and Bagnato, Dimonte and Garrino (2013: 107) explored development of higher order thinking skills and concur that critical thinking, reflective thinking, creative thinking, dialogic thinking, decision making, problem solving and emotional intelligence are higher order thinking skills required from graduates if they are to function effectively in the future working world. These competencies will enable students to becoming lifelong practitioners. Bagnato, Dimonte and Garrino (2013: 107) used the seven levels of reflexivity by Mezirow and concluded that very few students reached Levels 5 to 7 and recommended further exploration of reasons for this and factors of related to student guidance and support of students to deepen reflection and critical analysis. Harris (2006: 460) found that journaling enabled post-basic nursing students to reflect at a deeper level following Van Aswegen's model of critical thinking. However, although it is an educator's dream to produce students with the aforementioned skills, Harris (2006: 424) cautions that "Journaling does not seem to be a tool for learning or teaching for everyone".

Jasper and Paul (2011: 113) and Potgieter (2012) add that a student who has developed higher thinking skills is able to explore issues, make connections, organise thoughts and develop a new perspective on issues. Makhathini and Uys (1996: 340) concluded that students go through the motions of problem-solving, without really getting involved with the analysis of the problem and solving it, and recommended that more practice in problem-solving is needed. Harris (2006: 461) explored this and discovered that journaling allowed nursing students to describe and discuss their personal, workplace related problems or those encountered in their studies. They were therefore, able to identify problems and discuss means of solving those problems.

2.5.7 Journaling and personal development

Reflective writing as a developmental tool, learning from experience, cognitive, deliberate, processing and developing of analytical skills, are all components of personal development according to Jasper and Paul (2011: 112). Because writing is a cognitive, purposeful process, it demands active engagement and commitment in terms of time, mental and physical energy. Analytical skills are developed as a result.

According to Bulman and Schutz (2008: 170), writing reflectively permits individuals to examine their own thinking and responses and therefore learn about themselves, their thinking and their responses to the experiences they encounter. Therefore reflective writing improves self-awareness of one's perception and response to circumstances, consequently developing coping skills. Self-awareness is imperative for effective practice learning and development and has to be developed during practice. Solombela and Ehlers (2002: 57) and Ruthman, Jackson and Clusky (2004) agree that nurses must possess positive interpersonal skills in order to be effective health practitioners and health educators and to effectively receive and carry out doctors' orders. However, it is disturbing that findings of Solombela and Ehlers (2002: 57) indicated that student nurses did not seem to develop interpersonal relationships with patients, patients' family and friends, nor with their colleagues from the first till the fourth year of their training. In addition, a high percentage of students require extra training in clinical communication behaviour, treatment communication skills, and interpersonal communication skills (Xie, Ding, Wang and Liu 2012: 826).

Findings by Harris (2006: 460-461) are encouraging that through journaling students will develop ability to identify and analyse their difficulties, make suggestions for solving problems and ask and pursue questions on their own. Some of the participants confirmed improved values clarification, self-valuing and personal growth. In a study by Joubert and Hargreaves (2009: 257), most of the students developed cultural diversity awareness for the communities they were engaged with and for each other.

2.5.8 Journaling and professional development

Positive role modelling is a key factor in the professionalization of nursing students. Sadly, findings by Solombela and Ehlers (2002: 55) and Bezuidenhout (2003: 14) negated this because in their study many professional nurses were found wanting by student nurses who participated in this study, consequently some students failed to develop professionally. Quinn as cited Solombela and Ehlers (2002: 55) reiterates the need for “professional nurses to act as role models and to engage in both formal and informal teaching to facilitate students’ learning - much of which might be acquired by means of imitation”.

Bulman and Schutz (2008: 172) recommend journal writing for recording processes the students observe, copy and internalize in their journey towards professional development. Jasper and Paul (2011: 110) add that the writing process sets the stage for not only critical analysis, but also allows creative exploration of the experience. Professionals are accountable for their actions and through written records, evidence will always be available. Dalton (2005: 126) states that the clinical environment must be conducive for students to integrate what theory they have learned with the realities that confront them during their clinical experiences.

2.5.9 Journaling and students’ voices

Journaling is commonly done by the student individually and during their own private time away from the intimidating presence of seniors and nurse educators. Journaling becomes a platform for voicing out opinions, feelings and disturbing issues that concerns the student (Moon 1999; Bulman and Schutz 2008: 86). After witnessing ‘appalling care’, Hughes and Tiaki (2011), Harris (2006: 460) and Malik (1998: 52) noted that participants journalled to vent their feelings and therefore writing journals turned into a therapeutic or a ‘catharsis’ document for them. Nursing students verbalised that writing journals was time consuming as they had to read, reflect, analyse and write.

McKenna and Rolls (2011: 79) explored undergraduate midwifery students' first experiences of stillbirth and neonatal death where the students wrote journals as an emotional outlet after being traumatized by their experiences. Students expressed feelings of shock, inadequacy and helplessness and a need to cry but were unsure how this would be viewed by others.

2.5.10 Journaling and nursing education

In addition to the above opportunities, faculty can use journals for teaching and guiding students with regard to their clinical learning and development. Writing reflective journals assists students to actively participate in the process, learn to be self-directed and to multitask within one journal (Smith and Kirsten 2005). Molee Henry, Sessa and McKinney-Prupis (2010), Thorsen and DeVore (2013) and Chabeli (2006: 82) add that journals can be utilised to teach and guide students to develop higher order thinking skills for example, reflection, critical thinking and problem solving skills. Ruthman, Jackson and Clusky (2004), and Brown and Sorrell (1993: 16-19) agree that faculty can teach and capture critical thinking through the use of reflective journals.

Reflection is a requirement for accreditation by education institutions and professional councils. SANC controls nursing education in South Africa and supports training that "promotes critical thinking in order to develop nurses who are critical, reflective analytical thinkers" (SANC 2005). Joubert and Hargreaves (2009) note that that learning needs which may not be accounted for in the module outcomes as the students' progress through their community experiences can be identified from journals of students. Quality can be greatly improved by actively listening to the students themselves, when they voice concerns and challenges in their journals. Patton *et al.* (1997: 238) and Moon (1999) agree that reflective journaling can be a valuable communication tool between students and faculty. Findings by Leners, Sitzman and Hessler (2006) revealed students concerns with regard to clinical placements followed by suggestions on how to solve problems.

Commonly used clinical evaluation tools are designed to measure learning outcomes but fall short in measuring critical attributes of nurses pertaining to behaviours such as effective communication and professionalism (DeBrew and Lewallen 2014: 1). These evaluation tools are, therefore, insufficient if a well-rounded professional is to be produced. Allan, Smith and O'Driscoll (2011) alluded to these expected practices as a 'hidden curriculum' because although they are not measured, there is a general understanding that students should be competent in them. Reflective journaling is one of the tools which can be used to teach and evaluate development of these skills.

2.6 FACTORS INFLUENCING REFLECTION AND WRITING OF REFLECTIVE JOURNALS

2.6.1 The student

Boud (2000: 11) and Patterson, Crooks and Lunyk-Child (2002: 211) assert that students are in total control over their learning and therefore reflection. After all teaching, guidance and clinical placement is done, the ultimate decision to utilise the learning opportunities lies with the student. It must also be emphasized that feelings and cognition are interconnected. Boud *et al.* (2000: 64) suggests that negative feelings will negatively affect learning and reflection, while positive feelings will enhance learning and motivate the learner. The role of feelings must therefore not be ignored as the individual acknowledges and owns them. Boud *et al.* (2000: 24) adds that past experiences shape the perceptions of students and their coping mechanisms. If past experiences were negative, there is a high possibility for reduced clinical learning and therefore reflection. The opposite is true for a student who comes in with a positive attitude and is well prepared to learn. Habitual ways of thinking according to Boud *et al.* (2000: 23), lead to formation of perspectives which may either help or defeat clinical learning and reflection. Mezirow and Associates (1990: 229) states that for transformation of perspectives to occur, these factors must be considered.

Boud *et al.* (2000: 24) and Paterson *et al.* (2002: 211) add that student motivation influences how obstacles will be overcome and how a situation will be approached, processed and reflected on. Motivated students will seek information and link knowledge to improve performance. Chabeli (1999) adds that if a student does not value her/himself in learning, reflection will be affected. The student is the only one who can do the learning.

Student's clinical experience or level of training impacts on the level of reflection. According to Benner, Tanner and Chesla (2009: 11), reflective levels are lower during initial clinical placements and as the student progresses from novice to more advanced stages, reflective levels also improve.

2.6.2 The educator

Killam and Heerschap (2013) and Otienoh (2009) agree that the educator's confidence and competence "can make or break a clinical experience". Demotivated educators will consequently discourage students and therefore reflection. Dedicated educators may be limited due to qualifications, knowledge, skill, teaching experience or support from faculty. Feedback is a vital part of effective journaling and must be given promptly to students. Failure to do so will discourage students who may take journaling as a joke. The process of reflection must be assessed and not the personal beliefs of the student. The clinical educator must act as coach, guide and support system for the student.

2.6.3 Department of Nursing

Lack of faculty departmental support as well as support from colleagues discourages educators in becoming reflective educators (Otienoh 2009: 486). Participants in the study by Killam and Heerschap (2013: 686) perceived that effective clinical learning and therefore reflection was affected by large clinical groups which contribute to decreased feedback, increased waiting, mistakes and overlooked unethical behaviour. In the same study clinical placements that were of short duration and disorganised affected the students.

2.6.4 Clinical environment

The clinical environment affords the student learning opportunities in order for the student to correlate theory and practice and is therefore a vital factor in enhancing clinical learning. Students must feel welcome as part of the team, be recognised not only as students, but also as professionals-in-the-making. This enables them to gain self-confidence, self-esteem and a sense of belongingness, consequently preparing them to utilise available learning opportunities. Levette-Jones and Lathleen (2008) and McKenna *et al.* (2013) conclude that during initial periods of clinical placements, students undergo feelings of uncertainty and need time to better acquaint themselves with the staff, patients and the ward.

Reflection occurs best within this environment as the learner is exposed to clinical experiences which are crucial for development of clinical, professional and critical thinking skills. Benner, Tanner and Chesla (2009: 15) and Kear (2013) concur that clinical practice offers the student and opportunity for clinical learning and transforms the student into an effective member of the multidisciplinary health care team. Van-Horn (2013: 220) adds that the reflective undergraduate nursing student will then develop to be “an autonomous, accountable practitioner who has not only the practical skills necessary to deliver high quality nursing care, but also the broad knowledge base and analytical ability to make informed decisions about care”.

If effective clinical learning has to occur, Van-Horn (2013: 220) suggests that the clinical environment must be conducive for students to acquire problem solving and critical thinking skills in their journey towards professionalism. This will facilitate their learning and their performance levels as observed by Cisero (2006). A feeling of ‘belongingness’ during clinical practice not only improves self-esteem, physical and psychological safety but also self-directed learning (Kim 2011: 51-52). First time placements may be very difficult and traumatic for students if they do not feel welcome, learning opportunities are not granted to them and they are not supported or trusted. At this stage of being a novice, very little reflection may occur as stated by Benner, Tanner and Chesla (2009: 9) because the student has

very little or no background to base their approach or understanding of the clinical situation and this greatly affects their ability to think critically and forecast futures. The students may be very narrative at this stage and the student may only relate what they see and be dependent on more experienced professionals to guide her/him. This is supported by Levette-Jones and Lathleen and Lathlean (2008) and McKenna *et al.* (2013) who conclude that during initial periods of clinical placements, students experience feelings of uncertainty until they are better adjusted and feel secure around the staff, patients and the ward. Only then can they fully utilise available learning opportunities. In contrast, findings by Melincavage (2011) and Murphy (2012) argue that students experience anxiety and feelings of depression in clinical setting to such an extent that given a chance, they would choose their own clinical placement facilities.

As the student adjusts, Benner, Tanner and Chesla (2009: 11) suggest that individuals can progress from novice to stages of advanced beginner, competent, proficient and expert. At the stage of a novice, very little reflection may occur because the student has very little or no background upon which to base their approach or understanding of the clinical situation and this greatly affect their ability to think critically and forecast futures. The advanced beginner performs to a marginally acceptable level and according to Dreyfus as cited by Benner (1984: 22), is able to cope with real life clinical situations. Competent performers are able to plan actions based on the presenting situation clinical instead of including all aspects and are more efficient and organized in their approach. Proficient performers perceive situations as a whole instead of in terms of aspects. They have learned from experience the typical events to expect in a clinical situation and how plans need to be modified in response to these events and finally expert performers do not only know what needs to be achieved, based on mature and practiced situational discrimination, but also know how to achieve the goal. Nurses at this level have developed a deep connection and understanding of the situation and no longer rely on analytic principles; instead they possess an intuitive grasp of situations that is utilised to determine actions. At this level, the individual performs as a reflective practitioner ready to make appropriate and

conscious clinical decisions which according to Benner, Tanner and Chesla (2009) are deliberate, and holistic (Figure 2.1).



Figure 2.1: Development of clinical skills according to Benner, Tanner and Chesla (2009: 11).

2.7 GUIDED REFLECTION TO IMPROVE THE WRITING OF REFLECTIVE JOURNALS

2.7.1 Why guided reflection

Learning to write reflectively has been found by Landeen *et al.* and Smith (as cited by Epp 2008), to be a learned skill and De Swart, Du Toit and Botha (2012) and Benner, Tanner and Chesla (2009) adds that it can be extremely difficult for novices. Some of the challenges faced by students are lack of previous experience, lack of understanding of what and how to write reflectively, difficulty in expressing feelings and fear of others' comments of views expressed in the journal. Harris (2006: 460-461) cites language difficulties as one of the challenges as some nursing students are unable to articulate accurately. This greatly hinders the critical reflective thoughts of some first and second language nursing students. Yet, it is this analytic process that is closely linked to the development of the critical-thinking skills that are essential to effective clinical decision-making. Some find it tough deciding what to include in the journal especially with regard to personal matters. Trainees may use their journals to record the events of the day rather than to analyse their experiences to construct deeper meaning from these events. For many, reflection and journal writing do not come naturally, and facilitation is essential.

Plack and Greenberg (2005) declare that without guidance journals may become diaries that simply contain facts rather than analytic tools for learning. The

aforementioned challenges make it mandatory for nursing students who are in the early stages of journaling to be guided. It is recommended by authors like Johns as cited by Duffy (2009), Harris (2006) Dunlap (2006), Dean, Sykes and Clements (2012) and Epp (2008) that guidance is vital to help develop students towards critical thinking and therefore towards becoming reflective practitioners. These authors agree that structured reflection will guide students who do not know how to even begin writing, but warn that the structure must not be too restrictive as this may limit freedom of writing and reflection. Harris (2006), Dean, Sykes and Clements (2012) and Dunlap (2006) recommend that students embarking on reflective journaling require explicit orientation and guidance with regard to reflective writing. It is also helpful to provide the students with clear, written guidelines. Time frames need to be negotiated and agreed to with students. Constructive feedback relating only to the process of journaling and limited opinion from the educator must be given promptly to students.

2.7.2 The guiding process

It is recommended by authors like Johns as cited by a number of studies that guidance is vital to help develop students towards critical thinking and therefore, reflective practitioners (Duffy 2009; Harris 2006; Dunlap 2006; Dean, Sykes and Clements 2012; Epp 2008). These authors state that structuring reflection will guide students who do not know how to even begin writing, but warn that the structure must not be too restrictive as this may limit freedom of writing and reflection (Harris 2006).

Facilitators must avoid questioning or interviewing students as this may discourage them, rather adopt a 'mentor and coach' approach instead of directing the dialogue (Morroy, Shuy and Smyth as cited by Patterson et al. 2002). Feedback is very important to students to provide insights and direct students to relevant resources to improve on their reflective journals. Feedback must be given promptly as per agreed time frames otherwise students may devalue reflective journals leading to poor journaling. During guidance and feedback sessions, Harris (2006) further suggests the facilitator must adopt an empathetic

attitude and create a climate of trust; confidentiality and mutual respect. Students will be able to feel safe to express their views and expose their weaknesses.

2.8 ASSESSING JOURNALS

2.8.1 Reasons for assessing reflective journals

Discussion on the uses of journals clearly outlines the benefits of writing reflective journals with regard to personal development; professional development and clinical learning and these are reason enough for assessment of journals. The reflective practitioner who has developed reflective skills is what nursing as a profession needs and it cannot be ignored. Moreover, it has been noted that clinical assessment tools currently used do not address some of these professional skills that complete a reflective practitioner.

2.8.2 Concerns regarding the assessment of journals

Clarkeburn and Ketula (2012), Kennison and Misselwitz (2002) and Hargreaves (2004) express the following concerns regarding the assessment of journals:

- Educators and clinical facilitators may lack skills to guide, support and assess students;
- There may be no clear guidelines or structure, poor feedback to students; and
- The student may be assessed on the content written and their personal beliefs rather than the process of reflection.

All these factors may de-motivate students.

Student may be affected if they fear victimization by educators who are paying too much attention to content. Writing may be difficult for some students especially novices and those struggling with the English language. Time constraints may affect students if there is too much competition for their time and if clinical placements are too short (Chabeli 1999: 27-29). Some students may write what assessors want to hear or for obtaining grades.

There is great concern regarding measuring instruments and rubric especially if these are not explained and made accessible for students. There is a call for more authentic and valid tools rather than those which can lead to personal judgement by the educator.

2.8.3 Towards better assessment strategies

Studies have succeeded in proving that reflective journaling can be evaluated and must be assessed as the benefits of journaling far override the aforementioned concerns and challenges. There is just too much gain for the student, faculty and the nursing profession as well as the patient who is a recipient of health. It is in the interest of all concerned to assess whether the student achieves these skills. Moreover, Plack and Greenberg (2005), Moon (1999) and Harrison and Fopma-Loy (2010) state that the above challenges can be overcome through development of clear guidelines for students and these must be accessible to students before they start writing. When students are guided, they will be motivated to begin the reflective process.

Assessment instruments or rubric must be developed around well-defined frameworks easy for students, for example Mezirow and Gibbs'. These must also be explained also to students before they start writing their journals. Van Aswegen's Model of Critical Thinking was used as a framework by Harris (2006) and proved that "journaling enabled post-basic nursing students to address issues at a deeper level, looking beyond the superficial aspects of the problem". O'Connor (2008), Wilding (2008) and Fakude and Bruce (2003) found Gibbs' Reflective Cycle to be simple and straightforward to follow and their findings proved that deep reflection develops over time. Bagnato, Dimonte and Garrino (2013: 108) and Jensen and Joy (2005: 159) followed Mezirow and Associates's Transformation Model as a framework and concluded that students reached the first three levels very easily compared to levels five to seven. Kear (2013: 1086) also used Mezirow Transformation Model and concluded that "the participants discussed human interactions as key to their learning and in some recounted situations; the interactions resulted in changed meaning perspectives for the

participant”. This highlights perceptions of participants and their experiences in the clinical settings. Another study which added to student clinical perceptions and experiences was conducted by Chabeli (1999: 25-27) which brought forth multifactoral issues which nurse educators must consider if students are to reach higher levels of reflection. These included issues surrounding role modelling, communication, knowledge and experience, student supervision and management issues which affect student learning.

Preparation of facilitators to coach and mentor students is important so that students are not disadvantaged by lack of skills of educators. Educators must assess the reflective process rather than the student’s personality, values and feelings. It must be understood that reflection and critical reflection is a process. Finally, a concerted effort by all involved in clinical learning must be driven in order to minimise any obstructions to reflection and critical thinking.

2.9 THE CONCEPTUAL MODEL WHICH GUIDED THIS STUDY

Polit and Beck (2012: 128) suggest that conceptual models serve a number of objectives. These include guiding the researcher’s understanding of not only the ‘what’ of the phenomenon but also the ‘why’ of their occurrence, and stimulating research and the extension of knowledge by providing both direction and impetus for the study. De Vos, Strydom, Fouche and Delport (2011: 35) state that the conceptual model determines which questions are to be answered by the research, and how empirical procedures are to be used as tools in finding answers to these questions. This study aims to evaluate reflection in the journals of undergraduate nursing students according to Gibbs’ Reflective Cycle which was developed by Graham Gibbs in 1988.

2.9.1 Elements of the conceptual model

Gibbs’ model of reflection consists of six distinct steps namely: the description of what happened; the practitioner’s feelings during the experience; the evaluation of what was good and bad about the experience; the analysis or sense making of the

situation; the conclusions and potential alternatives in dealing with the situation, and; the action (Mantzoukas and Jasper 2004). Gibbs' Reflective Cycle is illustrated in Figure 2.2.



Figure 2.2: Gibbs' Reflective Cycle (1988).

Stage 1: Description of the event

During this stage, the nursing student must describe in detail the event being reflected on. Powers of observation and ability to record the situation and associated events will be utilised (McMillan-Coddington and Weyers 2013: 33). This includes responding to questions such as where she/he was; who else was there; why was he/she there; what was he/she doing; what were other people doing; what was the context of the event; what happened; what was his/her part in this; what parts did the other people play; what was the result. No judgements must be made at this stage, only a simple description (Bulman and Schutz 2008: 226). The students must be encouraged therefore, to tell their own stories in their own voice.

Stage 2: Feelings

At this stage, the student must try to recall and explore the reactions and emotions that were going on inside his/her mind, explaining why this event sticks in his/her mind? The following must be included: how he/she was feeling when the event started; what he/she was thinking about at the time; how did it make he/she feel; how did other people make he/she feel; how did he/she feel about the outcome of the event; what he/she thinks about it now. McMillan-Coddington and Weyers (2013: 34) note that academics are sometimes taught to depersonalize their thinking but Boud *et al.* (2000: 26) argues that people bring their experiences to any situation.

Stage 3: Evaluation

The student tries to evaluate or make a judgement about what has happened. Consider what was good about the experience and what was bad about the experience or what didn't go so well.

Stage 4: Analysis

At this stage, the student must break the event down into its component parts so they can be explored separately. He/she may need to ask more detailed questions about the answers to the last stage. These must be included: what went well; what did he/she do well; what did others do well; what went wrong or did not turn out the way it should have; in what way did he/she or others contribute to this. Similarities and/or differences of his/her feelings compared to others can be described (Bulman and Schutz 2008: 226).

Stage 5: Conclusion

At this stage the issue is explored from different angles. In addition, the student must have a lot of information to base his/her judgement. It is here that he/she is likely to develop insight into his/her own and other people's behaviour in terms of how they contributed to the outcome of the event. The emphasis is on learning from an experience. During this stage the student should ask him/herself what s/he could have done differently. The student can make general or specific

conclusions regarding the event (Bulman and Schutz 2008: 226) and this indicates insight and maturity of the student.

Stage 6: Action Plan

During this stage the student should think forward. Faced with the same event again what would he/she plan and do differently or would s/he be likely to do the same? This becomes very personal as the student decides on future encounters and own actions regarding same event/experience (Bulman and Schutz 2008: 226).

2.9.2 Justification for using a conceptual framework

The experience of the researcher as a clinical facilitator led to choice of this particular framework. The students in the study were introduced into reflective journaling in their first year when their submitted journals were of a narrative nature and lacked reflection. Gibbs' Reflective Cycle was appropriate for starting them off and allowing them to proceed to reflection on the implications and action plans that arise from the clinical situation (Bulman and Schutz 2008: 226). It was hoped that the students will have direction and be stimulated to organize their thoughts and their writing.

Gibbs' Reflective Cycle emphasizes that both the event and the feelings are vital for effective reflection to occur. The clinical environment is filled with emotions due to the nature of nursing; it is therefore not possible while carrying out nursing activities to divorce feelings from the equation. This model will be used for its simplicity and easy to follow steps to assist undergraduate nursing students to understand and develop personally and as reflective thinkers through their journey as students and ultimately to become reflective practitioners.

Gibbs' Reflective Cycle was used by Chong (2009: 117-118) to elicit perceptions of reflective practice from students. Participants supported the use of reflective journals for clinical learning and practice, but raised concerns with regard to time constraints, lack of supervision and poor feedback from mentors and lecturers.

Fakude and Bruce (2003: 53-54) used Gibbs' Reflective Cycle as a guide to assess journal entries. A high percentage of students succeeded in the description of the clinical event and expression of their feelings, but scored very low in the subsequent four stages of the cycle i.e. exploring alternatives, developing a new perspective and actions to be taken if the same experience recurs. The conclusion was that students had difficulty in reaching higher levels of reflection.

O'Connor (2008) succeeded in using this framework and recommends it as it is straightforward and encourages a clear description of the situation and adds that the various stages people pass through when learning from experience are clearly defined. O'Connor's study was dealing with a highly emotive topic where the writer witnessed the sudden demise of a long stay baby just prior to discharge.

After using Gibbs' framework, Wilding (2008) recommended it as being useful for deep learning and practical application of reflective practice even for first-year student nurses.

2.10 CONCLUSION

This chapter highlighted some of the relevant literature reviewed for this study. The global and local context regarding reflective journaling was discussed as well as various uses or benefits of journals, factors influencing journaling and the assessment of journals. In the next chapter the methods used to conduct the study will be discussed.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter discussed the literature review related to reflection and the use of reflective journals by nursing students during their clinical learning and practice. This chapter provides a detailed account of the research design and processes followed to conduct the study. This chapter also describes the study setting, sampling strategy, data collection tools and methods of data analysis. Trustworthiness and ethical considerations relevant to the study are also presented.

3.2 RESEARCH DESIGN

A research design explains how the researcher intends conducting the research and guides the process of research from the formulation of the research objectives up to reporting the research findings (Polit and Beck 2012: 58). A sequential exploratory mixed methods research design, using quantitative and qualitative paradigm, was applied for this study.

3.2.1 Mixed methods research strategy

Creswell (2013: 4) and Tashakkori and Teddlie (2003: 19) describe mixed methods research as an inquiry that incorporates qualitative and quantitative data collection methods, with the primary aim of offering a more in-depth and complete understanding of the research problem (Figure 3.1). Creswell (2013: 14-15) adds that when both quantitative and qualitative data collection is used, they complement each other, neutralizing the bias and weaknesses of each if they had been used separately. Creswell (2013: 218) advocates added benefits of mixed methods in that different perspectives can be elicited from both qualitative and quantitative designs; quantitative results are explained with a qualitative follow-up,

resulting in a better understanding of an intervention programme through the use of both approaches.

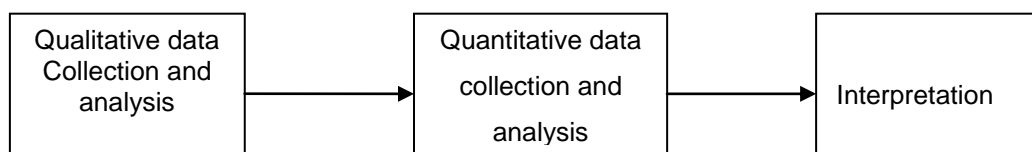


Figure 3.1: Mixed Methods Design (Adapted from Creswell 2013: 220).

Johnson and Onwuegbuzi (2004) list five major purposes for conducting mixed methods research: (a) triangulation, which entails seeking convergence and corroboration of results from different methods and designs studying the same phenomenon; (b) complementarity which involves elaboration, enhancement, illustration and clarification of the results from the other method; (c) initiation by discovering paradoxes and contradictions that lead to a re-framing of the research question; (d) development which entails using the findings from one method to help inform the other method; and (e) expansion which seeks to expand the breadth and range of research by using different inquiry components.

3.2.2 Philosophical foundation of mixed methods research strategy

Creswell (2013: 15) distinguishes between three types of mixed mode strategies, namely, convergent, transformational and sequential mixed methods.

In the convergent mixed methods, the researcher merges quantitative and qualitative data in order to provide a comprehensive analysis of the research problem. In this strategy, the researcher collects quantitative and qualitative data simultaneously. The analysis is conducted separately but the results of each are compared to “confirm or disconfirm each other” (Creswell 2013: 219). The quantitative data may be scored using an instrument and the views of participants may form the qualitative data. The results obtained from one should agree with the results from the other.

Unlike convergent design, in the sequential strategy data is collected at different phases and not at the same time. Creswell (2013: 15) distinguishes between two types of sequential strategies, namely, sequential explanatory strategy and sequential exploratory strategy. In sequential explanatory design, the researcher first collects quantitative data, analyses the results and builds on the obtained findings to explain them in more detail with qualitative research. It is explanatory because the results of the quantitative data are explained further with qualitative data (Creswell 2013: 224). Sequential exploratory design on the other hand begins with qualitative research in the initial phase, then the researcher builds on a quantitative phase from the obtained results (Creswell 2013: 16). The researcher first explores the qualitative data and analyses it and uses it in the quantitative phase.

In the transformational mixed methods strategy, the researcher uses a theoretical lens as an overarching perspective within a design that contains both qualitative and quantitative data (Creswell 2013: 16). Elements of convergent and sequential designs can be incorporated by the researcher (Creswell 2013: 228). It is a popular form of study in the context of social justice where actions have to be taken to address injustices in society.

In this study, qualitative data was gathered from the reflective journals of the students and analyzed at two separate intervals over a period of six months. This data was then be quantified in each phase by scoring to obtain levels of reflection. The content of the reflective journals was then qualitatively analyzed for themes. As stated by Creswell (2013: 218), to better understand the reflective journal results, quantitative data was also collected during Phase II using a perceptions questionnaire which was completed by participants to elicit their thoughts and feelings regarding the reflective journaling process. The combination of these two in this study assisted the researcher to develop a more complete understanding of how undergraduate nursing students use their reflective journaling during clinical learning.

3.3 STUDY SETTING

This study took place at the Indumiso campus of DUT which is situated in the greater Edendale area of Pietermaritzburg in uMgungundlovu District of KZN. This is a semi-urban area and the nursing students come mostly from the districts of KZN and surrounding provinces. The students are mainly Black students that speak isiZulu with a small proportion speaking other South African languages. English is the main language of communication for lectures and clinical practice. Clinical learning takes place in a clinical skills laboratory with simulated human models before students are placed in clinical facilities with real patients. Students are placed in various clinical facilities around Pietermaritzburg and surrounding districts. Reflective learning journals form part of the learning assessment strategies for clinical nursing practice from the second year of study. According to the nursing handbook (DUT 2012: 8), a minimum of 80% of the required reflective journals must be submitted and passed in order to obtain a competent mark in clinical practice. Reflective journals are written by the nursing students and submitted to clinical facilitators. The student is required to submit one reflective journal per placement cycle.

3.4 STUDY POPULATION

According to Polit and Beck (2012: 273) population is the entire aggregation of cases in which a researcher is interested. When the researcher commenced her study, a total of 274 undergraduate nursing students were registered and studying towards a four year Bachelor of Technology (B Tech) Nursing Degree. One hundred and five of these students were registered at DUT for second year in 2013. However, five of these students were repeating their second year, and therefore only one hundred were registered as first time second years. These students were introduced into reflective journaling during their first year, because of that the researcher selected them as they had produced reflective journals of poor quality. During the study, writing of reflective journals continues at DUT and students who did not participate receive their marks from the clinical facilitators. The students are placed for clinical practice in approved clinical facilities in and

around Pietermaritzburg. The students were placed for midwifery practice for their first reflective journal and for their second journal; they were placed for mental health practice.

Only students who were introduced to reflective journals in their first year of study were eligible for selection. Polit and Beck (2012: 274) suggests that if the group is homogeneous, confounding variables are controlled and internal validity is maintained. Only students who signed letters of information and consent were considered for the study.

Students who did not receive orientation to the reflective journals did not participate in the study to maintain internal validity as these students were not ready to participate. Students who participated in the pilot study were also excluded. Students who did not sign a letter of consent did not participate in the study.

3.5 SAMPLING PROCESS

Purposive sampling strategy was followed to obtain an appropriate sample for the study. Purposive sampling is selected when a researcher desires participants who are particularly knowledgeable about the topic under study (Polit and Beck 2012: 279). Being an employee in the same university as the participants, the researcher conducted her study on the second year undergraduate nursing students who were on campus but who also to her knowledge had been introduced to reflective journaling.

One hundred second year nursing students were invited to participate in this study. According to sampling guidelines stated in De Vos (2011: 196), 45% of the total sample of 100 is 45 participants. Face to face recruitment strategy was carried out by the researcher. The aims of the research and the rights of the students to participate were highlighted. The researcher then obtained a list of the second year students from the relevant level coordinator. Each name was allocated a number and using a table of random numbers, fifty percent of the

students were selected. Closing her eyes, the researcher used a pencil to point on the table of random numbers and stopped when 50 percent of corresponding numbers was reached. At the end of the selection process, 40 students returned their written consent to participate in the study.

3.6 DATA COLLECTION

Sequential data is not collected at the same time. The data collected and analysed in the first phase of a sequential strategy informs the collection and analysis in the second phase (Polit and Beck 2012: 608). Figure 3.2 below illustrates the mixed data collection strategy for this study:

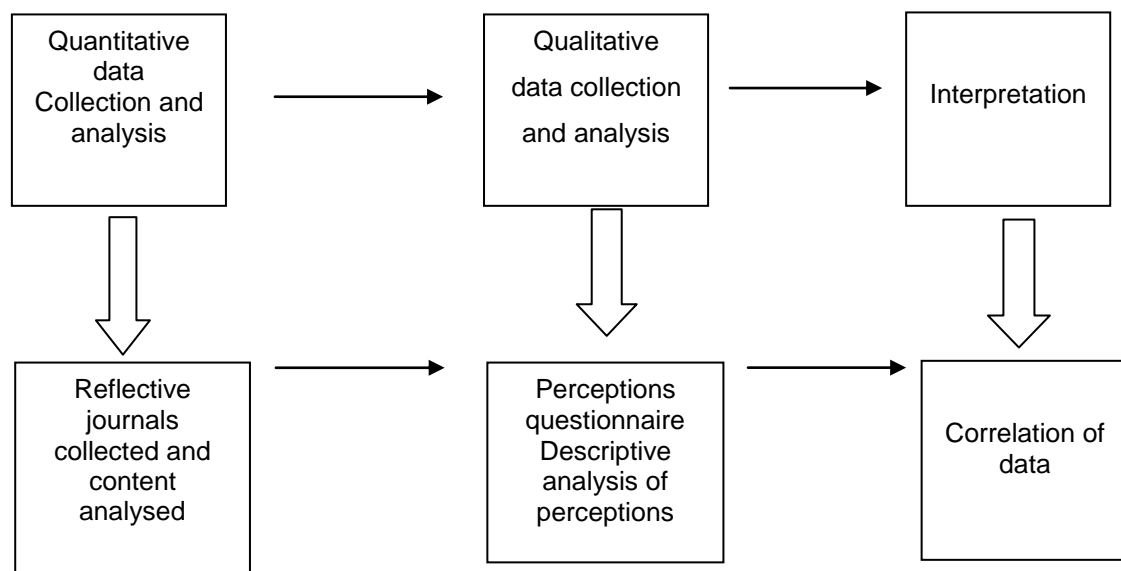


Figure 3.2: Mixed method design for this study (Adapted from Creswell 2013: 220).

Data was collected in Phase I as follows;

- Quantitative data was collected from two reflective journals submitted by each participant following each period of clinical placement. The first journal was written after clinical placement which took place in June 2013. The second journal was written in August 2013. The writings from the reflective journals were then quantified by scoring each journal according to the six steps of Gibbs' Reflective Cycle as discussed in the theoretical

framework. The students were at liberty to write on any chosen clinical incident encountered during clinical placement as long as they wrote according to Gibbs' Reflective Cycle. Oral and written guidelines were given before the students commenced their first journal and reinforced after submission before they wrote the second journal. The marking rubric used to grade the journals was adapted from the six steps of Gibbs' Reflective Cycle. Participants were introduced to the rubric before they commenced their journals. The students were rated according to their responses and classified as critically reflective, reflective and non-reflective. Non-reflective students scored below 50 percent; reflective students scored between 50 and 74 percent; critically reflective students scored 75 percent and above. The detailed marking rubric is attached as Appendix 5a.

- Qualitative data involved in-depth reading and analysis of the content of each reflective journal to depth to gain a deeper understanding of the participant's clinical encounters and how the student experienced their clinical learning. The account of each student in each phase of the Gibb's cycle clearly indicated the clinical experiences of the students. Excerpts from selected journals were identified and formed part of the reporting process. These excerpts were used to qualify the quantitative results.

Phase II was conducted in September 2013. Quantitative data was collected using a structured perceptions questionnaire. The questionnaire consisted of a Likert type rating scale which was designed based on the literature reviewed for the study. The rating scale comprised five categories as follows: Strongly agree = 1; Agree = 2; Uncertain = 3; Disagree = 4; Strongly disagree = 5. The questionnaire was divided into four categories namely: personal development; professional development; clinical learning and challenges to writing reflective journals. A pre-test was conducted to test the survey questionnaire. Five students were randomly selected as participants for the pre-test study. These students were not part of the formal study. The participants expressed their views with regard to the questionnaire language. They requested re-wording of Section

A - Criteria: 4 for better understanding. The recommended adjustment was made (see Appendix 5d).

3.7 DATA COLLECTION PROCESS

Harris (2006), Dean, Sykes and Clements (2012) and Dunlap (2006) recommend that students embarking on reflective journaling receive explicit orientation and guidance with regard to reflective writing. Participants should be provided with clear, written guidelines, and time frames need to be negotiated and agreed upon. To assist the students in their journey to write reflectively, the researcher planned full orientation for the students before they began writing their journals, thereafter feedback and guidance was given between journals.

3.7.1 Orientation phase

This was carried out in a classroom session before commencement of clinical placement. The process and timeframes were discussed with the students. Oral and written guidelines were explained to the students. The marking rubric was explained with regards to the grading process. Questions and misconceptions arising from the discussion were addressed. It was explained to the students that the overall purpose of keeping a journal was to record their experiences and reflect on what they had learned. Written instructions for completing the assignment were distributed to the students a week before their initial clinical placement. This was done together with an oral summary of the guided journal process to reinforce the information (Appendix 5b). The nursing students were instructed to write a reflective journal on any one critical incident or experience that occurred whilst they were carrying out their clinical learning experience during a cycle of clinical placement.

3.7.2 Phase 1a: Determination of students' level of reflection at the beginning of the experience

The first reflective journal was collected after the nursing students completed their first two weeks of clinical placement. This journal was graded according to the rubric adapted from Gibbs' Reflective Cycle (Appendix 5a). Written feedback was given to the participants on their performance in reflective journaling by the researcher to further guide them. This was done during a classroom session.

3.7.3 Guided briefing: Number 1

Feedback was given following marking of the reflective journals. Identified problems included inability by some participants whose writing was still descriptive/ narrative. Some participants were not clear about what qualifies a clinical incident to be a 'critical incident'. In some cases participants described the particular incident very well, and then drifted off to a different topic in the latter stages of the journal. Most participants did not enrich their knowledge of the topic at hand and this led to poor evaluation, analysis, conclusions and action plans. The students gave one sided arguments and described incidents as outsiders. There was no or poor referencing as well as grammar and spelling problems. Students were encouraged and motivated. Some of the gaps addressed included lack of knowledge about what critical incidents are as well issues of confidentiality.

3.7.4 Phase 1b: Determination of students' level of reflection at the end of the experience

The second reflective journal was collected two months after the first journal. The students had spent two weeks of mental health clinical placement. This journal was also graded.

3.7.5 Guided briefing: Number 2

The purpose and guidelines were reinforced and the marking rubric was revisited to encourage students to fully reflect on their experiences. Feedback on overall performance was given.

3.7.6 Phase 2: Assessment of student's perceptions with regard to their professional development, personal development and the influence of reflective journal writing in clinical practice.

A survey questionnaire was administered to the participants to complete at the end of the second journaling process. The survey questionnaire recorded perceptions of students with regard to their professional development, personal development and clinical learning. The last section of the questionnaire allowed students to comment on barriers experienced during their journaling. Questionnaires were distributed by a designated person from the department of nursing in a classroom environment. Students were given forty five minutes to complete the questionnaire. The researcher stayed at a distance to minimize response bias but within easy reach to clarify problems.

3.8 PRE-TESTING OF THE DATA COLLECTION TOOLS

Designing a questionnaire is a complex procedure that requires due consideration of the purpose of the study, information required for the type of questions, formats and pre-test, if original or adapted to ensure clarity and social desirability (De Vos *et al.* 2011: 170). Conducting a pilot study assists the researcher to pre-test or trial run an instrument on a small scale before it is used on a larger scale, preventing costly and flawed studies (Polit and Beck 2012: 195). The results inform the researcher of the feasibility of the instrument and what adjustments need to be made.

A pre-test was conducted to test the survey questionnaire. Five students were randomly selected to participate in the pilot study. To obtain these students, the

researcher used the list of students who were not selected for the study and employed the same strategy of a random table as before. These students were not part of the formal study. The participants expressed their views with regard to the questionnaire language. They requested rewording of Section A - Criteria: 4 for better understanding. Initial wording read; 'the reflective journal helped me to make decisions regarding future occurrences and take actions'. The recommended adjustment was made to read; 'I am able to make proactive decisions and take on the spot corrective actions'. The participants expressed satisfaction with the rest of the questionnaire. The final questionnaire was discussed with the supervisors and the statistician. It was accepted by the Institutional Ethics Committee before it was administered to the participants.

3.9 DATA ANALYSIS

Analysis was both quantitative and qualitative. Quantitative analysis can be descriptive and inferential numerical, and qualitative can be descriptive and thematic analysis (Creswell 2013: 222). Concurrent researchers usually employ data transformative approach or multilevel data analysis approaches. Sequential procedures are conducted if the researcher wants a more detailed exploration of a phenomenon and therefore employs one method to explain the other method. The researcher may commence the study with a qualitative method for exploratory purposes and then follow up with a quantitative method. Alternatively, the researcher may initially test theories and concepts quantitatively, and then follow it up with a qualitative approach which may involve detailed exploration.

(Creswell 2013: 227). In the data transformation approach, qualitative data is quantified through creation of codes, themes and patterns and then converting these into numbers according to their frequency in a study. In this way, qualitative data can be compared with quantitative data.

The reflective journals were read at least three times. Firstly, to identify their general meaning; then quantitative analysis followed with grading to determine the levels of reflectivity achieved using a marking rubric developed from Gibbs' model of reflection. This was followed by qualitative analysis of the reflective journals to

identify other themes and patterns that may have been omitted in the previous analysis. The themes and patterns representing levels of reflection according to Gibbs' were the key guidelines cited in the rubric.

In consultation with the statistician, data was analysed using inferential statistical tests, namely, Chi-square tests and Wilcoxon Signed Ranks tests. The Chi-square goodness of fit test tested whether any of the response options were selected significantly more/less often than the others. The Wilcoxon Signed Ranks test tested the two reflective journals and responses in the perceptions questionnaire by comparing observed frequencies and expected frequencies (Polit and Beck 2012: 420). P value was 0.05. For quantitative analysis, the survey questionnaire was analysed using descriptive statistics. Pearson's correlation coefficient was used as well to test correlations between the reflective journals and the perceptions questionnaire (Polit and Beck 2012: 421). The mean and standard deviation were represented in graphs and tables using Statistical Package for Social Sciences (SPSS).

3.10 INTERNAL AND EXTERNAL VALIDITY OF THE STUDY

Validity of a study is classified into internal validity and external validity. Polit and Beck (2012: 236) state that internal validity is the extent to which causal conclusions can be drawn from study findings, and external validity refers to the degree to which the findings can be generalised beyond the confines of the design and the study settings. The use of random sampling ensured the selected samples were representative of the target population and the use of a fairly large sample size enhanced the external validity of the study.

3.11 CONTENT VALIDITY OF THE RESEARCH INSTRUMENTS

Content validity is based on the extent to which a measurement reflects the specific intended domain of content. It focuses on the adequacy with which the domain of the characteristics is captured by the measure (Vogt, King and King 2004: 232). To ensure that all the measurements in the study represent the facets

of the construct under investigation, the following measures were considered by the researcher:

- The instrument used was a structured questionnaire, which was presented to experienced statistician and supervisors to confirm the content validity.
- An in depth literature survey confirmed the validity of the questionnaires.
- Simple questions were constructed to prevent misinterpretations and to construct the different sections of the questionnaires in the same manner.
- In order to confirm the validity of the findings two independent clinical facilitators further analysed the data for the purpose of objectivity. The two independent clinical facilitators were specialists in midwifery and mental health practice in line with the clinical placements of the students during the journaling process.

3.12 TRUSTWORTHINESS

The rigor of qualitative research is described by trustworthiness which ensures the extent to which the results can be trusted (Given and Saumure 2008: 896). According to Lincoln and Guba (1985: 290) trustworthiness refers the 'truth value' of a research study, its credibility, transferability, dependability and conformability.

3.12.1 Credibility

Credibility refers to confidence in the truth of data and interpretations thereof (Polit and Beck 2012: 175). Patton (2002: 552) asserts that the credibility of qualitative research mainly depends on rigorous methods, credibility of the researcher and philosophical belief in the value of qualitative inquiry. The integration of qualitative and quantitative methods in this study enhanced the credibility. Each journal was read at least three times to ensure credibility; firstly to get the general idea, secondly to grade the journal and finally to thoroughly check emerging themes and patterns to make sure nothing was missed. The questionnaire was piloted to eliminate any misinterpretations and adjusted as recommended. The theoretical framework used to guide students and develop rubric has been successfully used by other researchers. The study was done under a watchful eye of two

supervisors, the statistician was consulted (Appendix 6); the two clinical instructors are seasoned nurse educators with more than ten years of experience between them. They specialize in clinical training of midwifery and mental health at DUT.

3.12.2 Dependability

A study meets criteria for dependability if, when the research techniques are repeated in the same context with the same methods and with the same participants, similar results are obtained (Polit and Beck 2012: 175). Dependability is reliant on credibility. Data was collected from second year undergraduate nursing students who had been exposed to reflective journaling in their first year of study and had undergone clinical placement before. Copies of journals used for the study as well as perception questionnaires were retained in a safe place for future reference and scrutiny. Keeping of notes on any of the decisions made during data analysis, keeping raw data for interested researchers to crosscheck or verify and how interpretations were made, ensured dependability. The researcher worked under close supervision by the experienced supervisors and with a statistician to ensure credibility of data.

3.12.3 Confirmability

Confirmability refers to the extent to which the researcher can demonstrate the objectivity or neutrality of the study. Simplified, it means that the study must be free of personal bias (Polit and Beck 2012: 175). Participants received feedback and guidance on their performance after submission of journals. They were able to confirm that the journals were assessed using the agreed framework and marking rubric. Results following grading were forwarded to the research supervisors and statistician. Data collection approaches, decisions on what data to collect, raw data, analysis notes and interpretation of data were documented to ensure confirmability.

3.12.4 Transferability

Transferability is the extent to which findings can be generalised to or have applicability in other settings or groups (Lincoln and Guba 1985: 321). The findings of this study confirmed that the same framework can be easily applied to other groups of students as it proved that reflective journaling of participants improved when the students followed Gibbs' Reflective Cycle. The researcher also ensured transferability by clearly describing the nature of the participants, research method, data analysis and interpretation of the findings because thick description of methods ensures transferability.

3.13 ETHICAL CONSIDERATIONS

Ethical standards include standards relating to rights: every individual is entitled to the right to privacy and dignity. A research study is subject to Codes of Ethics and good practice for the protection of the participants (Polit and Beck 2012: 152). Ethical codes are based upon a few generally accepted moral values of respect for individual beneficence, respect for human dignity and justice. To ensure ethical considerations, these three broad principles, on which standards of ethical conduct research are based, were followed (Polit and Beck 2012: 152).

3.13.1 Beneficence

Beneficence imposes a duty on a researcher to minimise harm and maximise benefits. Polit and Beck (2012: 152) state that it is the researcher's duty to avoid, prevent, or minimise unnecessary harm in studies with humans. The authors further state that participants have a right to be protected from exploitation and should be assured that their participation or information they might provide will not be used against them. The right to freedom from harm and discomfort was maintained, as participants were not subjected to any risk of harm or injury. The study was reviewed by the DUT Institutional Research and Ethics Committee, and thereafter ethics clearance was granted (Appendix 1). Permission was sought from and granted by the DUT Research Director (Appendices 2a and 2b) and

Head of Department of Nursing (Appendices 3a and 3b). It is hoped through this study that the participants will evolve personally, professionally; their theory to practice correlation will improve and will eventually become reflective practitioners on completion of their studies.

3.13.2 Respect for human dignity

Respect for human dignity includes the right to self-determination and to full disclosure (Polit and Beck, 2012: 154). The information letter explaining what the study was about was provided to the participants before commencement of the study, and the participants signed a consent form (Appendix 4). Participants were requested not to write their names on the questionnaire in order to maintain confidentiality. The reflective journals were only identified by number for example RJ 2, to protect identity of the students. Participation in this study was voluntary and participants were informed of their right to withdraw from the study even if they had given their consent. No form of coercion was used on those individuals who refused to participate in the study. Confidentiality of records was maintained by being handled only by the researcher and her supervisors. When records were not being used, they were kept under lock and key by the researcher. They will then be disposed after a period of 15 years according to DUT policy.

3.13.3 Justice

Polit and Beck (2012: 155) state that justice involves a participant's right to fair treatment and their right to privacy, where participant selection has to be based on study requirements and not on a group's vulnerability. Selection of potential participants was open and fair without any discrimination. The participants who declined to participate in the study were not treated in a prejudicial manner. To ensure the right to privacy, participants' details were not written in the reports.

3.14 CONCLUSION

This chapter described how the study was conducted as well as data collection processes. The sample chosen was appropriate for the data to be collected as it targeted people involved in the practice in some way or another. A mixed methods research design was implemented. Chapter 4 will present the results of the study.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 INTRODUCTION

The previous chapter outlined the methodology adopted in conducting the present study. This chapter presents the results of the study. The study was conducted in two phases: Phase 1a and 1b was the collection and analysis of two sets of reflective journals from 40 participants, who were in the second year of their bachelor's degree and this was done over a period of three months. Phase II entailed data collection from a survey of the participants' perceptions of using reflective journals. The objectives of the study were to:

- Determine the undergraduate nursing students' levels of reflection at the beginning of reflective journal writing;
- Determine the undergraduate nursing students' levels of reflection at the end of a semester of clinical placement; and
- Determine the undergraduate nursing students' perceptions of reflective journal writing.

The demographic data of the participants obtained from their records will be presented first. The results from the study will then be presented commencing with the analysis of the reflective journals, followed by analysis of the perceptions questionnaire and thereafter of themes that emerged from the reflective journals.

4.2 DEMOGRAPHIC DATA

4.2.1 Gender and age

A total of 40 second year undergraduate nursing students participated in the study. Of these, there were 26 (65%) were female and 15 (35%) were male. The gender distribution is displayed in Figure 4.1.

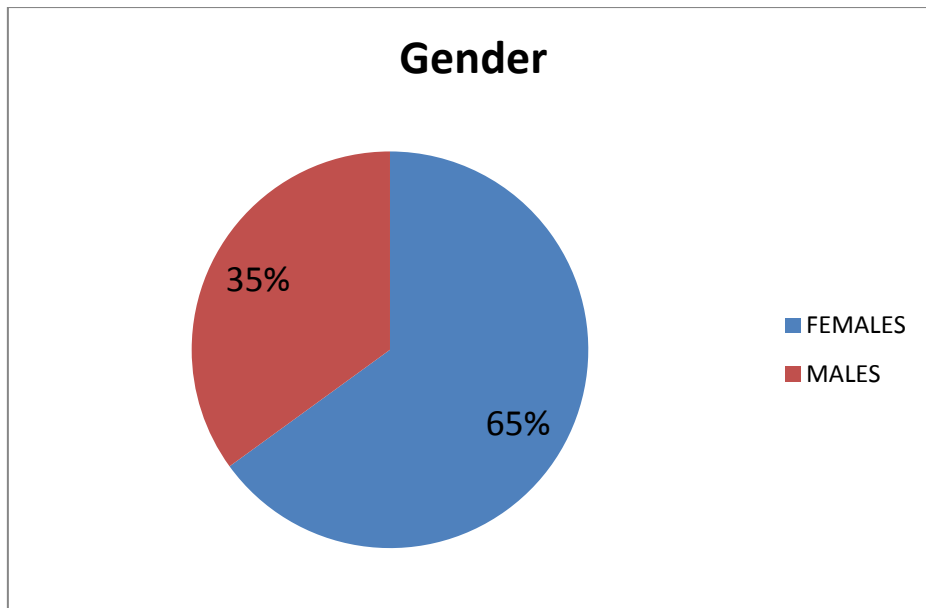


Figure 4.1: Gender distribution of participants (n=40).

There were more females than males in the 25 years to less than 30 years' age group (about 3:1) as well as in the more than 35 years' age group (2:1). This confirms the norm in nursing which is still a female dominated profession. The males dominated in the category of 20 to 25 years. This is presented in Figure 4.2.

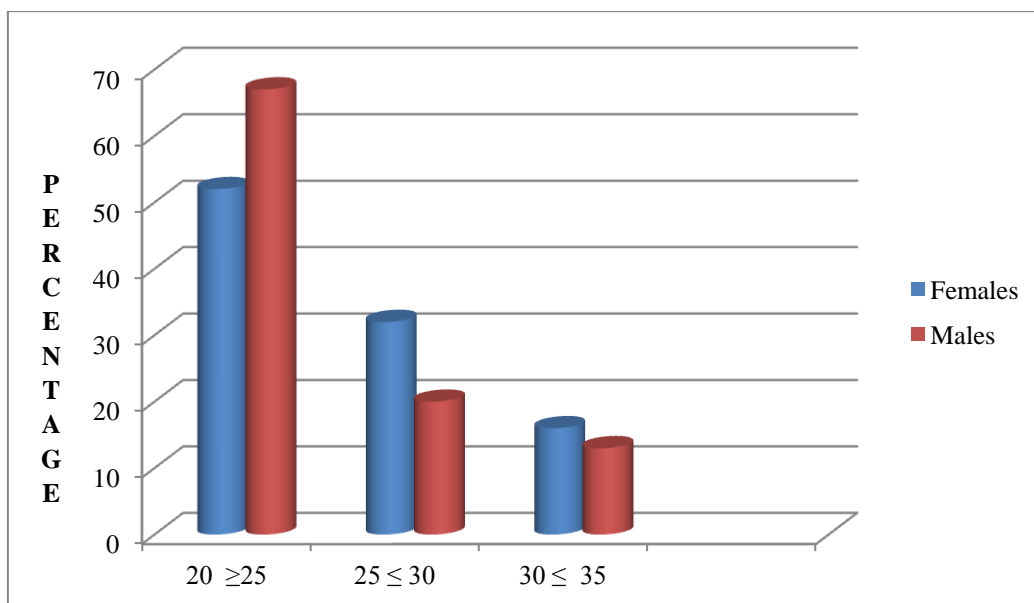


Figure 4.2: Gender distribution of students by age (n=40).

The results for the study will now be presented. Analysis of the reflective journals will first be discussed, followed by analysis of the perceptions questionnaire; thereafter themes that emerged from the reflective journals will be discussed.

4.3 ANALYSIS OF REFLECTIVE JOURNALS

The reflective journals were analysed after each set was received from the participants. They were first graded to obtain overall levels of reflection, followed by scoring each of the six stages of the Gibbs' Reflective Cycle (Gibbs, 1988). Thereafter, the two reflective journals were compared to determine whether participants' overall and individual scores improved or not.

The rubric used for grading the reflective journals was adapted from the theoretical framework by Gibbs (1988) which consists of six steps of reflection namely; description, feelings, evaluation, analysis, conclusion and action plan. Each criterion of the rubric was used to score the reflective journals of each participant to determine the levels of reflection. The scoring was as follows: non-reflective for those who scored below 50%; reflective for those who scored between 50 and 74% and critical reflective for those who scored above 75%. Tables and graphs are used to present the data from the two reflective journals.

4.3.1 Journal 1: Overall levels of reflection

After analysing the scores from the forty journals, the average for each level of reflection according to Gibbs (1988) were as follows:

- Approximately 38% (n=15) of the participants obtained scores between 50-74% indicating that they were reflective.
- Approximately 63%, (n=25) of participants obtained scores below 50% indicating that they were non-reflective at the initial phase of journal writings.
- None of the participants (n=0) obtained a score above 75%, indicating that they were not critically reflective with the initial journal writing (See Tables 4.1 and 4.2).

Table 4.1: Participants' scores obtained from Reflective Journal 1 (n=40).

Participant	Description	Feelings	Evaluation	Analysis	Conclusion	Action Plan	Score
1	5	5	3	1	1	3	60
2	3	1	1	1	1	1	27
3	3	5	1	1	1	1	40
4	3	1	3	1	1	1	33
5	5	5	1	1	3	1	53
6	3	3	3	3	3	1	53
7	5	3	3	3	1	1	53
8	1	3	1	1	1	1	27
9	5	5	3	1	1	1	53
10	3	3	3	1	1	1	40
11	3	3	1	3	1	1	40
12	3	1	1	1	1	1	27
13	3	5	3	3	1	1	53
14	1	1	1	1	1	1	20
15	3	3	1	1	1	1	33
16	5	3	3	3	1	1	53
17	3	3	3	3	1	1	47
18	1	1	1	1	1	1	20
19	3	3	1	1	1	1	33
20	3	3	3	3	3	3	60
21	3	3	1	3	1	3	47
22	3	3	3	3	3	1	53
23	3	1	1	1	1	1	27
24	5	3	3	3	3	1	60
25	3	3	1	1	1	1	33
26	5	5	1	1	3	1	53
27	3	5	3	3	1	1	53
28	3	3	3	3	1	1	47
29	5	3	3	3	3	1	60
30	3	1	1	3	1	1	33
31	5	5	3	1	3	3	67
32	3	1	3	1	1	1	33
33	3	3	1	1	1	1	33
34	3	3	1	1	1	1	33
35	1	3	3	3	1	1	40
36	3	5	1	3	3	1	53
37	3	1	1	1	1	1	27
38	5	3	1	1	1	1	40
39	3	3	3	1	1	1	40
40	3	3	3	1	1	1	40

Most participants achieved overall low levels of reflection in their first journal writings. These results are summarized in Table 4.2 and are displayed in a graph in Figure 4.3.

Table 4.2: Overall levels of reflection of participants in their first journal (n=40).

Critical reflective		Reflective		Non-Reflective	
n=	%	n=	%	n=	%
0	0	15	37.5	25	62.5

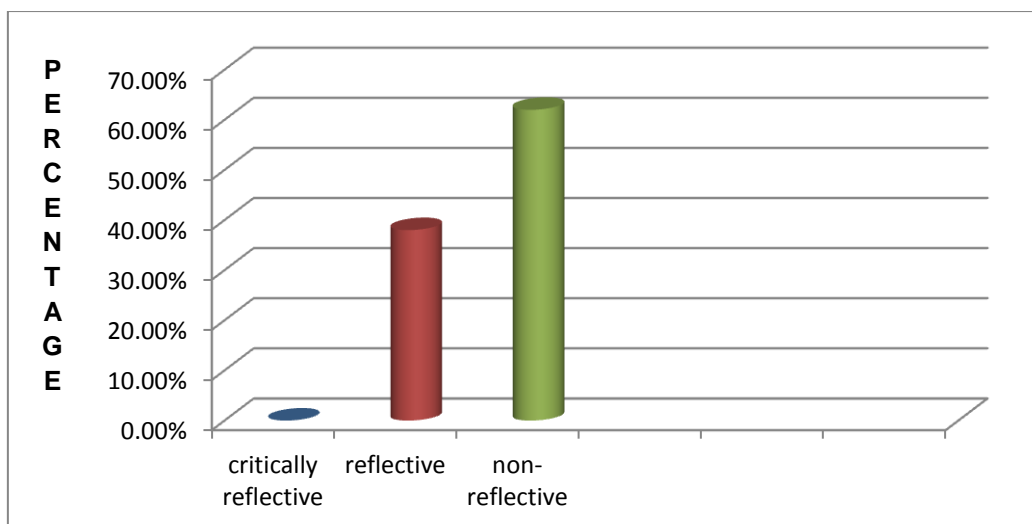


Figure 4.3: Journal 1: Overall levels of reflection 1 (n=4).

4.3.1.1 Journal 1: Levels of reflection in each stage of the Gibbs' Reflective Cycle

Each stage of the theoretical framework will now be presented to highlight the levels of reflection in each participant's journal. While a participant may have scored lower in the overall score of reflection, she/he may have scored higher in individual aspects of the reflective cycle.

Descriptions

The initial reflective journal findings demonstrated that 65% (n=26) of the participants were reflective as they gave descriptions of their experiences adequately; 25% (n=10) qualified as being critically reflective as they were able to fully describe and detail what happened, as well as reporting on the roles of themselves and personnel. Ten percent (n=4) were non reflective as they gave minimal descriptions of the incidents.

The following is an excerpt from Participant 34 indicating a poorly written description which gives very minimal information and leaves out details of the event being written.

"My first exposure in a psychiatric ward, was at X hospital. A 40 year old male patient suffering from Schizophrenia was admitted. I called him for his routine mental state examination under supervision by the registered nurse. He came and sat down and I proceeded with the procedure following the prescribed guidelines. I was so excited and the patient was very talkative that is why I chose him."

Feelings

First journal results demonstrated that 55% (n=22) of the participants were reflective. They were able to give adequate descriptions of their feelings and thoughts but they lacked depth. The remaining 45% were equally split between critically reflective 50% (n=9) and non-reflective 50% (n=9). A journal sample from Participant 20 indicates a poorly written stage two of the reflective cycle, the participant shares feelings minimally and lacks self-examination of feelings.

"When the patient came in I was so scared because he was aggressive. Security was called by the registered nurse."

Evaluation

With regard to the evaluation stage of reflective cycle, the student results were equally split between being reflective 50% (n=20) and non-reflective 50% (n=20).

At the initial stage of journal writing, none of the participants demonstrated being critically reflective. The reflective participants gave an adequate description of what was good and bad about the incident but lacked depth and left out some vital details. The following journal sample from Participant 28 indicates a poorly written evaluation which has left out details of what was good and bad about the incident.

"The good thing about this event was that the Sister also gave us an opportunity to help so that we can experience and learn more on how to manage such a patient in the future."

Analysis

The results from the participants' first journals indicated 40% (n=24) were reflective and 60% (n=16) were non reflective. None of the participants were critically reflective. The following is an example from Participant 28 of a poorly written analysis where the participant offered very little insight and poor judgement of the incident.

"We team worked well together because while I was withdrawing the injection, the other one will be doing the recording and the Sister was doing the referral. We felt safe with the security to protect us from aggressive patients."

Conclusions

The first journal results of the participants demonstrated that about 78% (n=31) displayed non-reflection as they gave a narrow perspective and showed very little motivation to changing their perspective towards the experience and learning. The remaining 23 % (n=9) were reflective. None of the participants were critically reflective. The following was extracted from Participant 34 indicating a non-reflective conclusion which gives a very narrow perspective on the incident. This is reflected on the excerpt below:

"When looking at the incident, I don't worry too much because it was my first exposure, next time I'll be more responsible."

Action plan

The first reflective journals of the participants demonstrated that 90% (n=36) were non-reflective as they offered minimal or no changed perspective on the situation (see excerpt below). The remaining 10% (n=4) were reflective. None of the participants were critically reflective. The following sample from Participant 6, is low in reflection because the participant offered a very narrow new perspective and corrective actions should the same event recur

"If I can face the same event again, I will do what is best for the client as a patient advocate."

The overall performance of participants in each stage of the reflective cycle is presented in Figure 4.4. It illustrates the high reflective levels during the descriptive and feelings stages compared to the rest of the stages of the reflective cycle.

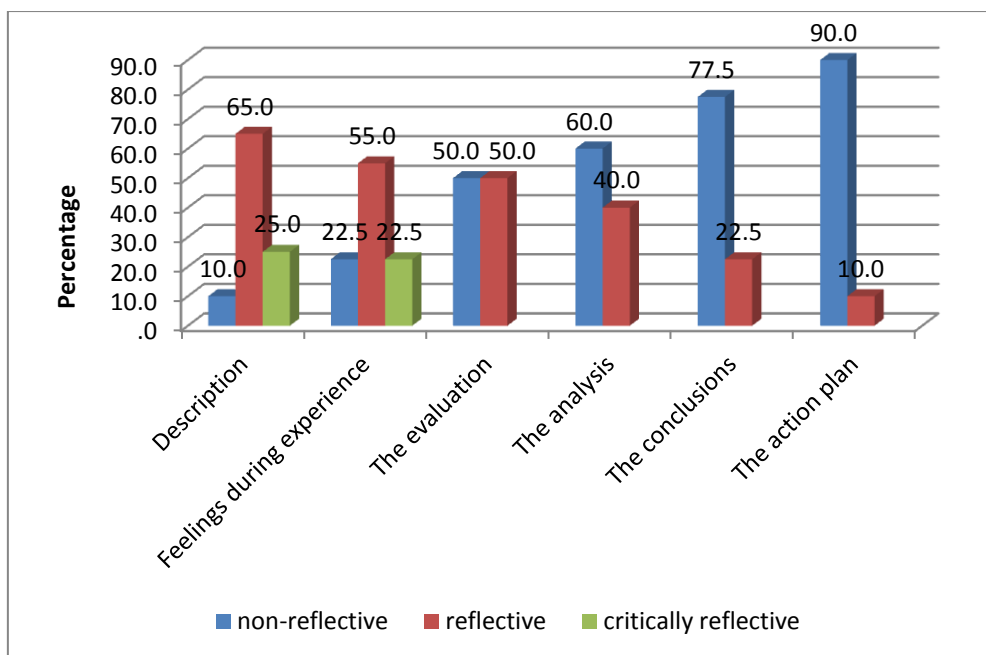


Figure 4.4: Journal 1: Overall performances in each stage of reflective cycle.

4.3.1.2 Chi-square goodness of fit test for reflective journal 1

A Chi-square goodness of fit test was applied to determine whether each aspect of the reflective cycle were equally preferred. The results indicated that a significant number of participants were 'non-reflective' in the following stages of the reflective cycle: In the conclusions, the results were χ^2 (N=40) =38.150 with a p value of <0.0005 indicating that most participants were unable to draw clear conclusions from the clinical incidents they reflected on. Participants were also non-reflective in stage six (action plan) of the reflective cycle with results of χ^2 (N=40.2) =58.400 and p value of <0.0005.

However, the participants proved significantly more 'reflective' in the stages of description and feelings. The results on stage one (description) was χ^2 (N=40.2) =19.400 with p value of <.0005. The stage two (feeling) result was χ^2 (N=40.2) = 8.450 with a p value of=0.015. Fewer than expected were 'critically reflective' in the aspect of 'evaluation' (χ^2 (N=40.2)= 20.000 and p<.0005) and 'analysis' (χ^2 (N=40.2)=22.400, p<.0005). These statistics are illustrated in Table 4.3.

Table 4.3: Chi-square test statistics for Journal 1

	Description 1	Feelings 1	Evaluation 1	Analysis 1	Conclusions 1	Action plan 1
Chi-Square	19.400 ^a	8.450 ^a	20.000 ^a	22.400 ^a	38.150 ^a	58.400 ^a
df	2	2	2	2	2	2
Asymp. Sig.	.000	.015	.000	.000	.000	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.3.

Table 4.4 displays the average / mean for the first journal entry as 42.43%, a score below 50% indicating the non-reflective nature of participants in the first journal.

Table 4.4: Descriptive statistics for Journal 1 (n=40)

	N	Mean	Std. Deviation
Total 1	40	42.43	12.370

4.3.2 Journal 2: Overall levels of reflection

After analysing the first reflective journals, the researcher met the participants and gave them feedback on their performance. During this session the researcher was able to address questions and confusions regarding the writing of the journals. Participants were commended on their good performance on the 'descriptive' and 'feelings' aspects of their journals. The guidelines were revisited on how to improve the other four stages where they had performed poorly. The grading of the second reflective journals was done in the same manner as for the first reflective journals. These results are now presented.

The overall levels of reflection were as follows: only one participant scored above 75% and therefore reached the level of critical reflection. A significantly higher number of participants 85% (n=34) reached the reflective level as their scores were between 50-74%. A few participants 13% (n=5) scored below 50% and were

considered non-reflectors. This indicates that there were higher overall levels of reflection in the participants' second reflective journals. The scores obtained in the second reflective journals are displayed in Table 4.5.

Table 4.5: Participants' levels of reflection in Journal 2 (n=40).

Participant	Description	Feelings	Evaluation	Analysis	Conclusion	Action Plan	Total Score
1	3	5	3	3	3	3	67
2	3	3	1	1	1	1	33
3	3	5	3	3	1	1	53
4	3	3	3	3	3	3	60
5	3	5	3	3	3	1	60
6	3	5	3	3	1	1	60
7	5	5	3	3	3	3	73
8	3	3	3	3	3	3	60
9	5	5	3	3	3	3	73
10	5	5	3	1	3	1	60
11	3	3	3	3	3	1	53
12	3	3	3	3	3	3	60
13	3	5	3	3	3	1	60
14	1	1	1	3	1	3	33
15	3	3	3	3	1	3	60
16	5	5	3	3	3	1	63
17	5	5	3	1	1	1	53
18	3	3	3	3	1	1	47
19	3	3	3	3	3	3	60
20	5	5	3	3	3	3	73
21	3	3	3	3	3	3	60
22	5	5	3	3	3	3	73
23	3	3	3	3	3	1	53
24	5	5	3	3	3	3	73
25	3	3	3	3	3	1	53
26	5	5	3	3	1	1	60
27	3	3	3	3	1	1	53
28	5	5	3	3	5	3	80
29	3	5	3	3	1	1	53
30	5	5	3	3	3	3	73
31	5	5	3	3	1	3	67
32	5	5	3	3	1	1	60
33	3	3	3	3	3	3	60
34	3	3	3	1	1	1	40
35	5	5	3	5	1	1	67
36	5	3	3	3	1	1	53
37	3	3	3	3	3	3	53
38	3	3	3	1	1	1	40
39	5	5	3	3	3	3	73
40	5	5	3	3	3	1	67

Judging by the improved overall performance in the second reflective journal, it is evident that the feedback given before participants embarked on their second reflective journal played a pivotal role in how they wrote in the second reflective journals. Table 4.6 is a statistical summary of the overall performance in the

second reflective journal and Figure 4.5 is a graphical representation of the improved levels.

Table 4.6: Overall levels of reflection in the second Journal (n=40)

Critical Reflective		Reflective		Non-Reflective	
n=	%	n=	%	n=	%
1	2.5	34	85	5	12.5

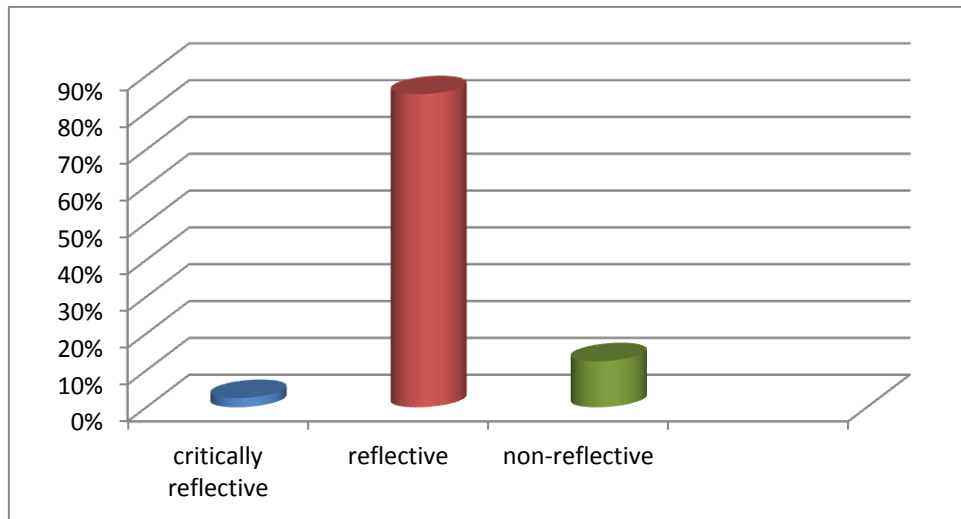


Figure 4.5: Journal 2: Overall levels of reflection

4.3.2.1 Journal 2: Levels of reflection in each stage of the reflective cycle

The levels of reflection for each stage of the second reflective journal will now be presented.

Description

The scores in this stage of the reflective cycle demonstrated an increased number of participants 42% (n=17) who were critically reflective; 55% (n=22) were reflective and the non-reflectors decreased to 2.5% (n=1). The following excerpt from Participant 17 indicates a critically reflective description. The participant gave a detailed account of the event, what happened, and the roles of all involved in the incident.

"I was allocated at X Health Clinic for my first mental health clinical practice. DUT and students from other institutions had to take turns working in the psychiatric consultation room which was small to accommodate more than one student. On the 5th of August, I got my first chance to work in the consultation room. Suddenly we had a shout for help from a staff member who was attending to a patient who was out of control. We all came and discovered a female patient who was running around naked. I was shocked. We all ran to help and succeeded to get her into the nearby sluice room and put s dress on her. She was unable to sanely answer questions from the sister and instead became aggressive until security was able to control her. The psychiatric nurse administered Ativan 2mg and Modecate 25mg, after a while, she calmed down."

Feelings

The results in this stage of the reflective cycle were higher than in the first reflective journals with 55% (n=22) of the participants being critically reflective and 42% (n=17) being reflective. There was a decrease in the non-reflectors 2.5% (n=1) in comparison to the first reflective journals where there were 50% (n=9). The following excerpt from Participant 2 exemplifies a well written Stage 2 Feeling where the participant fully described feelings and thoughts, elaborating on the physical and mental state.

"What I was feeling about my first experience and facing some different behaviour which we were supposed to manage emotional. Sometimes I was panicking and afraid of them. Sometimes the behaviour of the clients was too emotional for me and I felt helpless. My tiny body led to the patient becoming curious of my age and I developed low self-esteem because of my tiny body which makes me look very young. The nursing staff came to my rescue and gave me confidence and they reassured me."

Evaluation

The results in this stage indicated marked improvements in the reflection level. Ninety five percent (n=38) of the participants were reflective while only 5% (n=2) were non reflective. The following excerpt from Participant 8 exemplifies a well written evaluation stage by a participant who fully described what was good and bad about the experience from all angles.

"What was good about my first mental health experience was that the patient was not aggressive towards me. This enabled me to communicate effectively with the patient as I was anxious about working with aggressive patients. What was also good is the safe environment and there were no dangerous objects which could endanger other patients and staff. I also learned a lot about Schizophrenia, its signs and symptoms and intervention strategies. What was bad was that I was so anxious and scared of the patients fearing that they can harm me."

Analysis

The results in this stage indicated 2.5% (n=1) of the participants demonstrated critical reflection as they were able to give a broad perspective on the experience and how it impacted on the participant and the profession. Eighty five percent (n=34) were reflective as they succeeded in analysing the incident but their accounts lacked depth and vital aspects of the analyses were left out while approximately 3% (n=5) were non-reflective as their analyses were very narrow and demonstrated little evidence that they had learned from their experiences. The following is a well written 'Analysis' from Participant 40.

"I learned to correctly follow guidelines and conduct a medication interview and to assess the mental health patient during the mental state examination. This way I was able to apply theory from the clinical skills laboratory to situations I came across. I also did reality orientation, doctor's rounds as I was taught by my lectures. The staff in the ward taught and supervised me while I carried out health education, nursing care of schizophrenia, giving of medications. I observed some risky things in the ward for example allowing patients to smoke, leaving some patients isolated and not attending to them and not monitoring patients when they are showering as they can get burnt."

Conclusions

The results in this stage indicated that approximately 58% (n=23) of the participants were reflective and 40% (n=16) were non reflective. Only 2.5% (n=1) of the participants emerged as critically reflective. The following excerpt from Participant 8 is a sample of a well written conclusion. The participant stated and reflected on what could have been done to prevent the situation and what can be done to achieve improved readiness. The participant was able to describe strategies to improve the situation.

This was a great experience for me as this was my first time. I did what was best of me at that time but my next wish is to do the mental state examination independently. I feel confident in terms of communication and consulting the mental health care user. I would recommend more practice in the clinical skills laboratory to gain confidence before coming for placement. It would also be advisable to allocate fewer students at X Clinic because there are very few psychiatric patients who attend this clinic and the sister can only work with one student."

Action Plan

The results in this stage of reflection indicated that approximately 53% (n=21) of participants remained non-reflective whereas about 48% (n=19) were reflective. The following is a sample from Participant 11 who submitted a well written action plan because the student clearly displayed a changed perspective on the situation and offered future action plans and readiness should the same event recur.

“In future I would handle patients differently to better the situation. I will inform patients to return for follow up, teach patients on self-care, and make sure patients are referred to social workers, involve family in the care of clients and make sure gaps in the medication interview are filled to prevent relapses.”

Performance of the participants in each stage of the second reflective journal is illustrated in Figure 4.6. Note the improved levels in the areas of evaluation, analysis, conclusions and action plan.

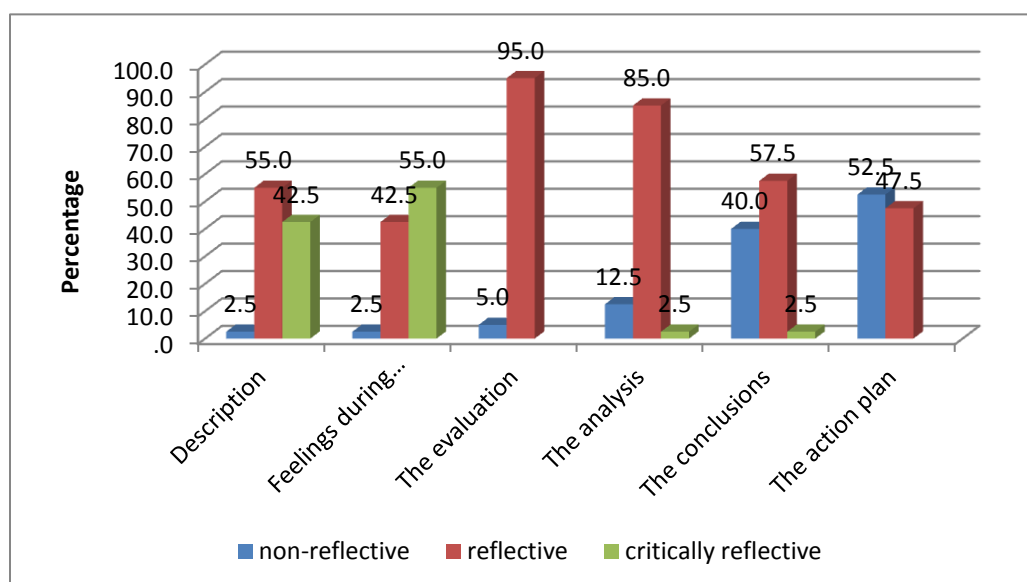


Figure 4.6: Journal 2: Levels of reflection in each stage of the reflective cycle

4.3.2.2 Journal 2: Chi-square test

A chi-square goodness of fit test was applied to the results of the second reflective journal and it yielded the following; more than an expected number were 'reflective' in the stages of 'evaluation' yielding a result of χ^2 (N=40.2)=68.600 and $p<.0005$) and 'analysis' with a result of χ^2 (N=40.2)=48.650 and $p<.0005$. Fewer than expected were 'critically reflective' in the stage of conclusions with a result of

χ^2 (N=40.2) =18.950 and $p<.0005$ and also reached critical reflection in action plan stage with a result of (χ^2 (N=40.2)=20.150 and $p<0.0005$. These results are illustrated in Table 4.7

Table 4.7: Chi-square goodness of fit test statistics on Journal 2

	Description 2	Feelings 2	Evaluation 2	Analysis 2	Conclusions 2	Action plan 2
Chi-Square	18.050 ^a	18.050 ^a	68.600 ^a	48.650 ^a	18.950 ^a	20.150 ^a
df	2	2	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000	.000	.000

Table 4.8 indicates the average/ mean for Journal 2 was 59.30%, a score between 50-74% emphasizing the reflective nature of the second reflective journal.

Table 4.8: Descriptive statistics for Journal 2 (n=40)

	N	Mean	Std. Deviation
Total 2	40	59.30	10.903

The results indicate that at the end of the second reflective journal, the number of reflective participants increased by approximately 48%. Only one participant, 2.5% (n=1) obtained a score above 75% indicating a level of critical reflection.

4.3.3 Comparison of levels of reflection for the two journals

There was a general improvement noted when the two journals were compared. Approximately 43% (n=17) of participants who were previously non-reflective improved to the reflective level. Approximately 13% (n=5) participants remained non-reflective by the end of the study. However, although still below reflective level, 10% (n=4) of the participants showed a steady improvement from their original scores (See Table 4.9).

Table 4.9: Overall Scores for the two reflective journals (n=40)

Journal	Description		Feelings		Evaluation		Analysis		Conclusions		Action plan		TOTAL MARKS %	
	One	Two	One	Two	One	Two	One	Two	One	Two	One	Two	One	Two
1	5	3	5	5	3	3	1	3	1	3	3	3	60	67
2	3	3	1	3	1	1	1	1	1	1	1	1	27	33
3	3	3	5	5	1	3	1	3	1	1	1	1	40	53
4	3	3	1	3	3	3	1	3	1	3	1	3	33	60
5	5	3	5	5	1	3	1	3	3	3	1	1	53	60
6	3	3	3	5	3	3	3	3	3	1	1	1	53	60
7	5	5	3	5	3	3	3	3	1	3	1	3	53	73
8	1	3	3	3	1	3	1	3	1	3	1	3	27	60
9	5	5	5	5	3	3	1	3	1	3	1	3	53	73
10	3	5	3	5	3	3	1	1	1	3	1	1	40	60
11	3	3	3	3	1	3	3	3	1	3	1	1	40	53
12	3	3	1	3	1	3	1	3	1	3	1	3	27	60
13	3	3	5	5	3	3	3	3	1	3	1	1	53	60
14	1	1	1	1	1	1	1	3	1	1	1	3	20	33
15	3	3	3	3	1	3	1	3	1	1	1	3	33	60
16	5	5	3	5	3	3	3	3	1	3	1	1	53	63
17	3	5	3	5	3	3	3	1	1	1	1	1	47	53
18	1	3	1	3	1	3	1	3	1	1	1	1	20	47
19	3	3	3	3	1	3	1	3	1	3	1	3	33	60
20	3	5	3	5	3	3	3	3	3	3	3	3	60	73
21	3	3	3	3	1	3	3	3	1	3	3	3	47	60
22	3	5	3	5	3	3	3	3	3	3	1	3	53	73
23	3	3	1	3	1	3	1	3	1	3	1	1	27	53
24	5	5	3	5	3	3	3	3	3	3	1	3	60	73
25	3	3	3	3	1	3	1	3	1	3	1	1	33	53
26	5	5	5	5	1	3	1	3	3	1	1	1	53	60
27	3	3	5	3	3	3	3	3	1	1	1	1	53	53
28	3	5	3	5	3	3	3	3	1	5	1	3	47	80
29	5	3	3	5	3	3	3	3	3	1	1	1	60	53
30	3	5	1	5	1	3	3	3	1	3	1	3	33	73
31	5	5	5	5	3	3	1	3	3	1	3	3	67	67
32	3	5	1	5	3	3	1	3	1	1	1	1	33	60
33	3	3	3	3	1	3	1	3	1	3	1	3	33	60
34	3	3	3	3	1	3	1	1	1	1	1	1	33	40
35	1	5	3	5	3	3	3	5	1	1	1	1	40	67
36	3	5	5	3	1	3	3	3	3	1	1	1	53	53
37	3	3	1	3	1	3	1	3	1	3	1	3	27	53
38	5	3	3	3	1	3	1	1	1	1	1	1	40	40
39	3	5	3	5	3	3	1	3	1	3	1	3	40	73
40	3	5	3	5	3	3	1	3	1	3	1	1	40	67

Performance in the first journal indicated a higher percentage of participants achieved below 50% compared to the second journal. The second journal scores indicate a higher percentage of participants achieved above 50%. Performances in the second journal demonstrated that 2.5% (n=1) of participants obtained critical

reflection whereas 0% (n=0) obtained critical reflection in the first journal. The number of reflective participants increased by 47.5% (n=19) in the second reflective journals. Figure 4.7 is a graphical representation of the compared levels of reflection of the two journals.

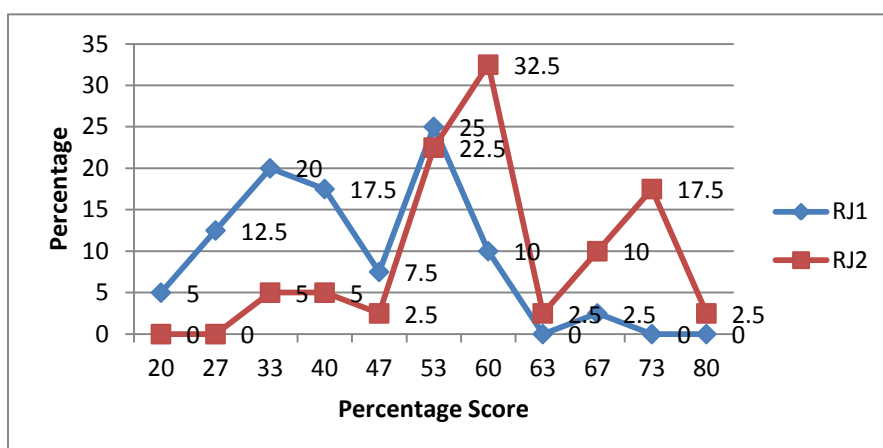


Figure: 4.7: Compared levels of reflection of the two journals

4.3.3.1 Wilcoxon Signed ranks test for the two reflective journals

The Wilcoxon Signed Ranks test performed on the data showed significant difference between the total percentage of the scores before and after ($Z (N=40) = -5.154$, $p < 0.0005$). The average/mean scores for reflective journal one was 42.30, and 59.30 for reflective journal two. This indicates that participants scored significantly higher in their second reflective journal (see Table 4.10).

Table 4.10: The Wilcoxon Signed Ranks test for the two journal scores

	Total 2 - Total 1
Z	-5.154 ^a
Asymp. Sig. (2-tailed)	.000

4.4 ANALYSIS OF THE PERCEPTIONS QUESTIONNAIRE

The perceptions questionnaire was used to obtain the perceptions of participants with regard to writing of the reflective journals. The questionnaire consisted of four sections namely; professional development; personal development; clinical learning and barriers to writing reflective journals and was designed from the literature reviewed for the study. Each section had a Likert rating scale comprising five categories as follows: Strongly agree=1; Agree=2; Uncertain=3; Disagree=4; Strongly disagree=5.

4.4.1 Professional development

The results on how participants perceived the impact of writing reflective journals had on their professional development is presented below.

4.4.1.1 Chi square test for professional development

A chi-square goodness of fit test was applied to the data which indicated a significant agreement from participants that writing the reflective journals enabled them to correlate theory with practice with a result of $Z (N=40)=-4.883$ and $p<.0005$. Participants also agreed that reflective journaling improved their problem solving skills with a result of $Z (N=40)=-4.770$ and $p<.0005$ and confirmed that journaling contributed to their ability to redefine experiences and problems ($Z (N=40)=-4.394$, $p<.0005$). Reflective journaling assisted them ($Z (N=40)=-3.979$, $p<.0005$), to make proactive decisions and take on the spot corrective actions. The participants ($Z (N=40)=-5.488$, $p<.0005$) also agreed that they have learned to use past experiences to prevent future occurrences (See Table 4.11).

Table 4.11: Chi-square goodness of fit test for professional development

	I am able to correlate theory with practice	My problem solving skills have improved	I am able to redefine experiences and problems	I am able to make proactive decisions and take on the spot corrective actions	I am able to use past experiences to prevent future occurrences
Z	-4.883 ^a	-4.770 ^b	-4.394 ^a	-3.979 ^b	-5.488 ^a
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000

4.4.1.2 Mean scores for professional development

The mean scores for professional development were all below the neutral value of three indicating that participants perceived the writing of reflective journals to have made a positive impact. There was strong agreement confirmed by a mean score of 1.53, that reflective journaling enabled participants to use past experiences to prevent future occurrences. A mean score of 1.93 confirmed that participants strongly agreed that the writing of reflective journals enabled them to correlate theory with practice. The mean scores are presented in Table 4.12 and graphically in Figure 4.8.

Table 4.12: Mean scores for professional development

	N	Mean	Std. Deviation
I am able to correlate theory with practice	40	1.93	.829
My problem solving skills have improved	40	2.18	.712
I am able to redefine experiences and problems	40	2.15	.834
I am able to make proactive decisions and take on the spot corrective actions	40	2.38	.774
I am able to use past experiences to prevent future occurrences	40	1.53	.640

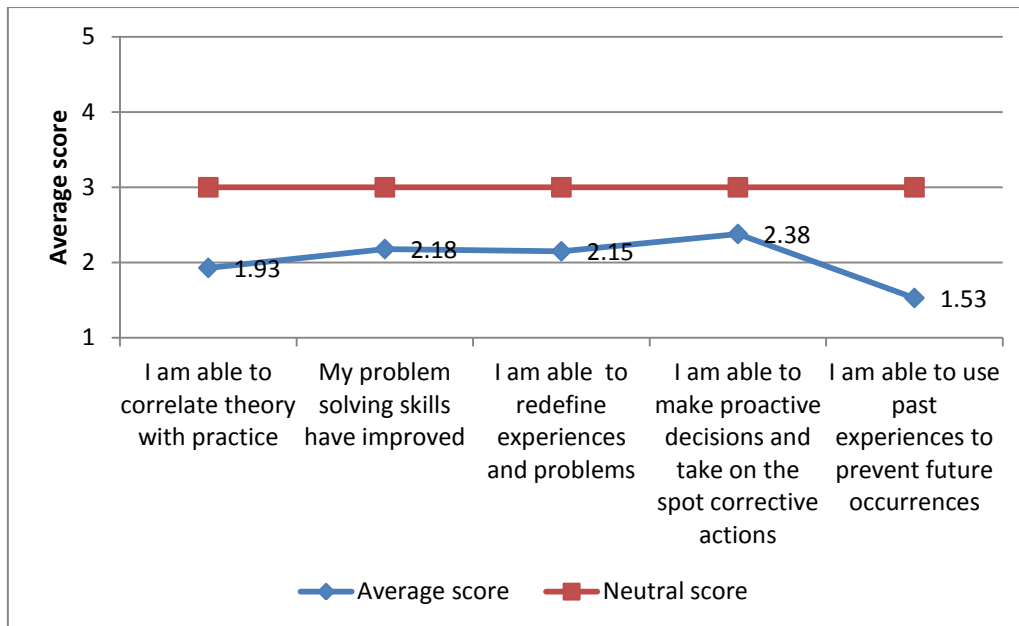


Figure 4.8: Average scores for professional development

4.4.1.3 Wilcoxon Signed ranks test for professional development

The average score for the group was 2.03. According to a Wilcoxon Signed ranks test this value is significantly different from a neutral score of 3 $Z (N=40) = -5.315$, $p < .0005$, indicating that writing a reflective journal positively impacted on professional development as perceived by the participants.

Table 4.13: Descriptive statistics for professional development (n=40)

	N	Mean	Std. Deviation
Professional development	40	2.0300	.53118

4.4.2 Personal development

The results of how participants perceived the impact of writing reflective journals had on their personal development is presented below.

4.4.2.1 The Wilcoxon Signed Ranks Test for Personal development

The Wilcoxon Signed Ranks Test was applied to the results and indicated a significant agreement that writing a reflective journal impacted positively on the personal development of the participants. Their responses confirmed that they were empowered towards examining their attitudes and perspectives to a given experience $Z (N=40) = -4.992, p < .0005$. Participants agreed that journal writing made them aware of their strengths and weaknesses $Z (N=40) = -5.273; p < .0005$. They affirmed that reflective journaling assisted them in developing coping skills towards clinical experiences $Z (N=40) = -4.664, p < .0005$.

During reflective journaling, participants confirmed that they were made conscious of their feelings and emotions as an aid to deal with self and others $Z (N=40) = -5.205$. Writing reflective journals gave them a voice to express themselves $Z (N=40) = -4.748, p < .0005$. Participants observed improvement in their confidence $Z (N=40) = -5.048, p < .0005$. The writing exercise instilled by writing the journal enhanced their writing and recording skills $Z (N=40) = -4.964, p < .0005$. These statistics are displayed in Table 4.14.

Table 4.14: Wilcoxon Signed Ranks Test Statistics for personal development

	threes - empowered me towards examining my own attitudes and perspectives to a given experience	made me aware of my strengths and weaknesses - threes	threes - assisted me in developing coping skills towards clinical experiences	made me conscious of my own feelings and emotions in order to deal with myself and others - threes	threes - given me a voice to express myself	threes - improved my confidence	threes - enhanced my writing and recording skills
Z	-4.992 ^a	-5.273 ^b	-4.664 ^a	-5.205 ^b	-4.748 ^a	-5.048 ^a	-4.964 ^a
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000

KEY:

a. Based on negative ranks

b. Based on positive ranks

c. Wilcoxon Signed Ranks Test

4.4.2.2 Mean scores for personal development

The mean scores for personal development were below the neutral score of 3 indicating that participants viewed writing of reflective journals positively. The participants agreed that the writing made them aware of their strengths and weaknesses with a mean score of 1.83. The writing ensured they were conscious of the feeling and emotions evoked by clinical experiences by obtaining a mean score of 1.88. The writing of journals gave the participants a platform to express themselves by obtaining a mean score of 1.98. Participants felt their confidence was improved by obtaining a mean score of 1.93 and their writing and recording skills were enhanced by obtaining a mean score of 1.9. These are displayed in Table: 4.15 and Figure 4.9.

Table 4.15: Average mean scores for personal development

	N	Mean	Std. Deviation
Empowered me towards examining my own attitudes and perspectives to a given experience	40	2.08	.694
Made me aware of my strengths and weaknesses	40	1.83	.675
Assisted me in developing coping skills towards clinical experiences	40	2.00	.847
Made me conscious of my own feelings and emotions in order to deal with myself and others	40	1.88	.686
Given me a voice to express myself	40	1.98	.832
Improved my confidence	40	1.93	.764
Enhanced my writing and recording skills	40	1.90	.810

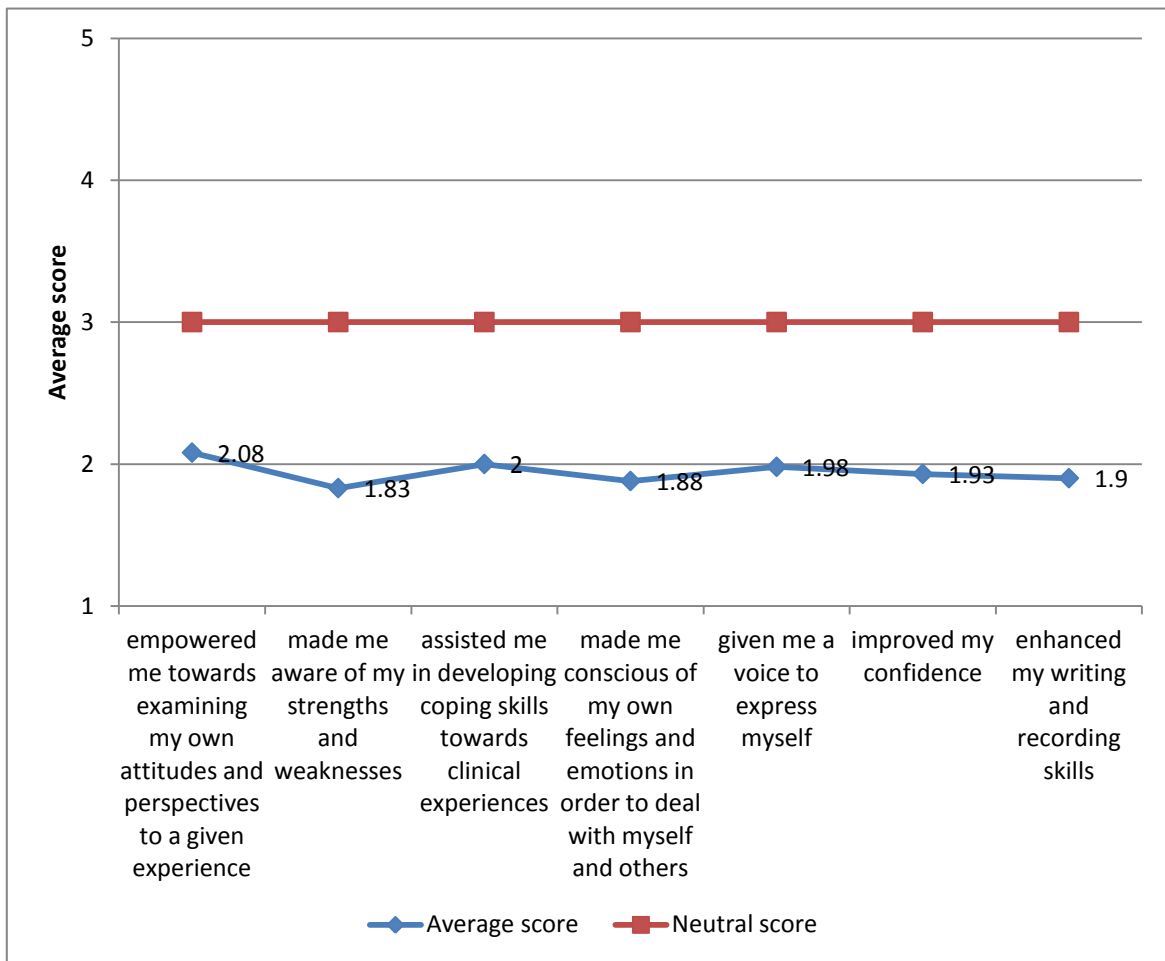


Figure 4.9: Overall perceptions of personal development

4.4.2.3 Descriptive statistics for personal development

The average score for personal development was 1.9393, a score below the neutral score of 3. This confirms that the writing of reflective journals impacted positively on the personal development of participants.

Table 4.16: Descriptive statistics for personal development (n=40)

	N	Mean	Std. Deviation
Personal development	40	1.9393	.47643

4.4.3 Clinical learning and practice

The following section will present findings regarding the impact writing reflective journals made on the clinical learning of the participants.

4.4.3.1 The Wilcoxon Signed Ranks Test for clinical learning

The Wilcoxon Signed Ranks Test applied to the results indicated a significant agreement that writing the reflective journals enhanced the participants' clinical learning. Reflective journal writing enabled them to understand and promote understanding of their clinical learning outcomes as reflected by these results: $Z (N=40)=-5.138, p<.0005$. Participants became more actively involved in their clinical learning and increased ownership of their own learning: $Z (N=40)=-4.117, p<.0005$. Participants saw an increase in their reflective and thinking abilities: $Z (N=40)=-4.710, p<.0005$. Reflective journaling stimulated them towards searching for more knowledge in order to be ready for future critical experiences: $Z (N=40) =-4.962, p<.0005$. Participants experienced improvement of their observation skills: ($Z (N=40)=-5.397, p<.0005$). See Table 4.17 for these results.

Table 4.17: The Wilcoxon Signed Ranks test results for clinical learning and practice

	threes - Enabled me to understand and promote my understanding of learning outcomes	Increased my active involvement and ownership of my own learning - threes	threes - Increased my ability in reflection and thinking	Stimulated me towards searching for more knowledge in order to be ready for future critical experiences/ events - threes	threes - Helped improve my observation skills
Z	-5.138 ^a	-4.117 ^b	-4.710 ^a	-4.962 ^b	-5.397 ^a
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000

KEY:

a. Based on negative ranks

b. Based on positive ranks

c. Wilcoxon Signed Ranks Test

4.4.3.2 Mean scores for 'clinical learning'

The average scores for clinical learning were below the neutral score of 3, indicating the positive impact journaling had on clinical learning. There was strong agreement amongst participants that reflective journaling improved their observation skills confirmed by a mean score of 1.63. Participants strongly agreed that journaling enabled them to understand and promote understanding of their clinical learning outcomes by obtaining a mean score of 1.93. They further agreed that they were stimulated towards searching for more knowledge in preparation for future experiences by obtaining a mean score of 1.93. The average scores obtained for 'clinical learning' are illustrated in Table 4.18 and Figure 4.10.

Table 4.18: Mean scores for 'clinical learning'

	N	Mean
Enabled me to understand and promote my understanding of learning outcomes	40	1.93
Increased my active involvement and ownership of my own learning	40	2.18
Increased my ability in reflection and thinking	40	2.03
Stimulated me towards searching for more knowledge in order to be ready for future critical experiences/ events	40	1.93
Helped improve my observation skills	40	1.63

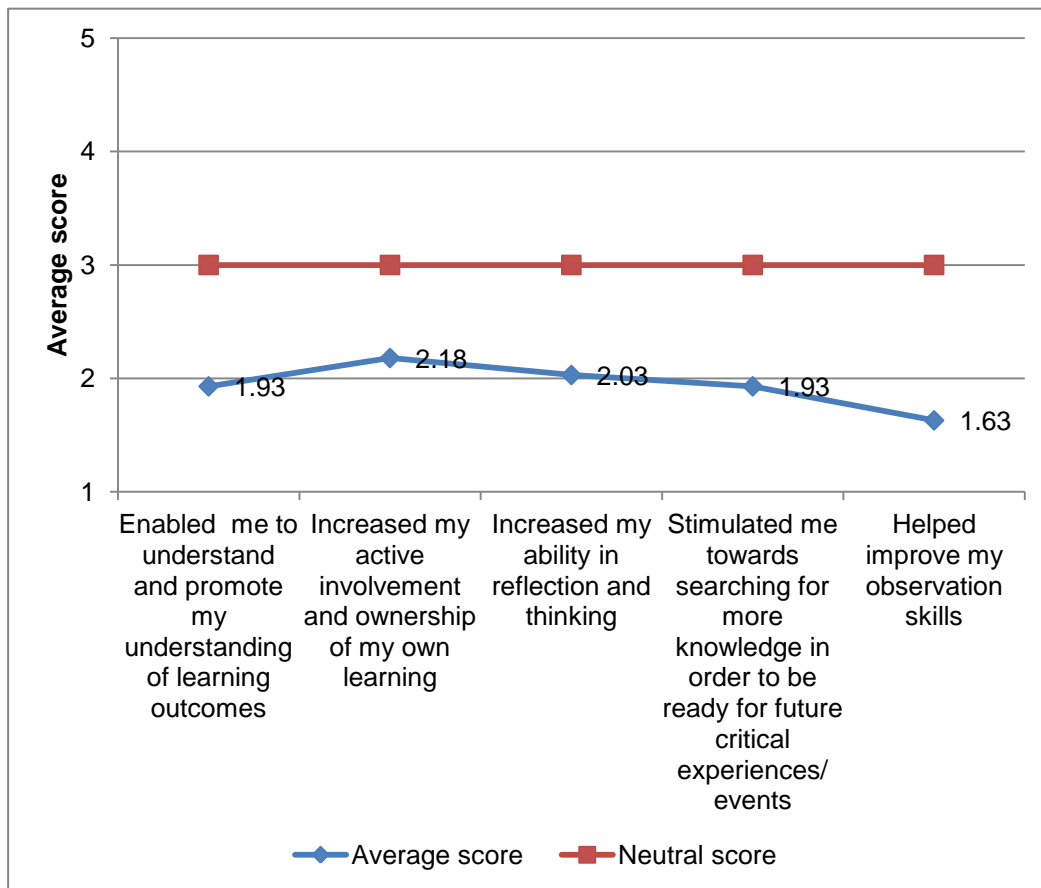


Figure 4.10: Overall perceptions for clinical learning

4.4.3.3 Descriptive statistics for clinical learning

The average score for clinical learning was 1.935, below the neutral value of 3 indicating the positive impact the writing of journals had on the participants' clinical learning (see Table 4.19).

Table 4.19: Descriptive statistics for clinical learning

	N	Mean	Std. Deviation
Clinical learning and practice	40	1.9350	.58422

4.4.3.4 Combined average scores for both reflective journals

The combined perceptions of writing reflective journals indicate very little difference between professional development, personal development and clinical learning. The scores however were less than the neutral of 3. Based on these findings, the writing of reflective journals impacted positively and the perceptions of participants support the writing of reflective journals as beneficial for their personal and professional development as well as their clinical learning and practice. Figure 4.11 illustrates the average scores for perceived impact of journaling.

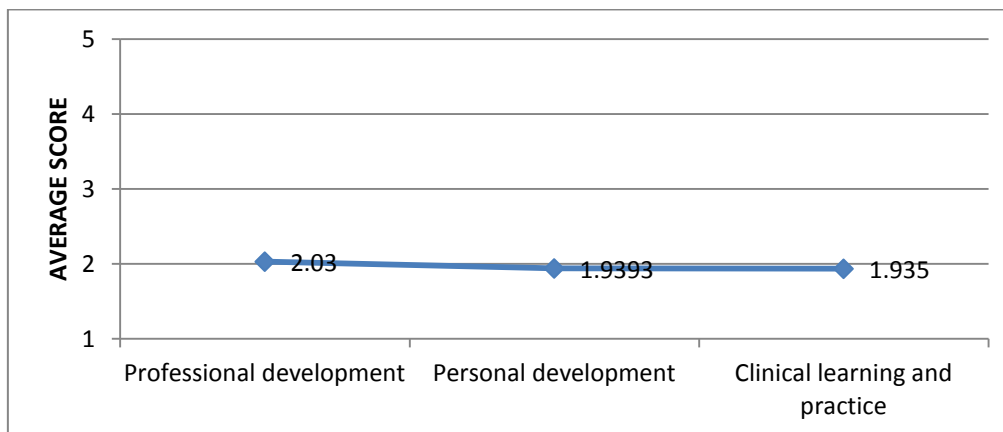


Figure 4.11: Average combined scores on the perceived impact of journaling.

4.4.4 Barriers to effective journaling

The section below presents the participants' perceptions regarding barriers they may have encountered during the journaling process.

4.4.4.1 Mean scores for barriers of effective journaling

Two mean scores of 2.90 and 2.95 respectively were less than the score of 3, which clearly indicated that the participants perceived their command of language limited their writing ability and that the writing took too much time. Table 4.20 displays the mean scores for each of the perceived barriers of reflective journals.

Table 4.20: Mean Scores for barriers of reflective journals

	N	Mean
My command of language limited my writing ability	40	2.90
Writing the reflective journal took too much time	40	2.95
The benefits of journaling are not clear to me	40	3.18
I feel uncomfortable writing my personal feelings in the reflective journal	40	3.25
I may be victimized when I express my real feelings	40	3.33
I am not confident in my abilities to write a reflective journal	40	3.10

4.4.4.2 Chi-square goodness of fit test for perceived barriers

A chi-square goodness of fit test was applied for each perceived barrier to see if any option was chosen more/less than others.

The language command was seen by most participants (χ^2 (N=40.4) =16.750, p=0.002) as limiting to their writing ability. It was refreshing that there was significant disagreement from the participants regarding being victimized when expressing their real feelings (χ^2 (N=40, 4) =16.250, p=0.003); and not feeling confident in their abilities to write a reflective journal (χ^2 (N=40.4) =15.500, p=0.004). Table 4.21 illustrates the above statistics.

Table 4.21: Chi-square test statistics on perceived barriers of writing journals

	My command of language limited my writing ability	Writing the reflective journal took too much time	The benefits of journaling are not clear to me	I feel uncomfortable writing my personal feelings in the reflective journal	I may be victimized when I express my real feelings	I am not confident in my abilities to write a reflective journal
Chi-Square	16.750 ^a	7.250 ^a	3.000 ^a	10.750 ^a	16.250 ^a	15.500 ^a
df	4	4	4	4	4	4
Asymp. Sig.	.002	.123	.558	.030	.003	.004

4.4.4.3 The frequency tables for each perceived barrier of writing reflective journal

a. Perceptions regarding writing of reflective journals and command of language

A significant number of participants (48%), perceived their command of language as limiting to the writing of journals. About 33% did not see their command of language as a barrier to effective journaling. These are presented in Table 4.22.

Table 4.22: Frequency distribution for ‘command of language limited my writing ability’.

Strongly Agree		Agree		Uncertain		Disagree		Strongly Disagree	
n	%	n	%	n	%	n	%	n	%
2	5	17	42.5	8	20	9	22.5	4	10

b. Perceptions regarding the time taken to write reflective journals

Participants appeared indecisive whether writing reflective journals took too much of their time as there was little difference between participants who agreed (approximately 48%) and those who disagreed (approximately 43%). Only 10% of participants were uncertain whether their time was interfered with or not. These results are presented in Table 4.23.

Table 4.23: Frequency distribution for ‘Writing the reflective journal took too much time’

Strongly Agree		Agree		Uncertain		Disagree		Strongly Disagree	
n	%	n	%	n	%	n	%	n	%
6	15	13	32.5	4	10	11	27.5	6	15

c. Perceptions regarding benefits of journaling

Half of the participants (50%) disagreed that the benefits of journaling were not clear to them. Approximately 38% expressed lack of clarity regarding the benefits of journaling. This is in spite of guidance given before and during the process of journaling and is therefore a concern. These are presented in Table 4.24.

Table 4.24: Frequency distribution for ‘The benefits of journaling are not clear to me’

Strongly Agree		Agree		Uncertain		Disagree		Strongly Disagree	
n	%	n	%	n	%	n	%	n	%
9	22.5	6	15	5	12.5	9	22.5	11	27.5

d. Perceptions regarding writing personal feelings in reflective journals

A significant number of participants (approximately 48%) were comfortable with writing their personal feelings in the reflective journals, while 30% expressed feeling uncomfortable about writing their personal feelings. It is concerning that about 23% of participants appeared uncertain on the issue of divulging their feelings in the journals. This is illustrated in Table 4.25.

Table 4.25: Frequency distribution for ‘I feel uncomfortable writing my personal feelings in the reflective journal’

Strongly Agree		Agree		Uncertain		Disagree		Strongly Disagree	
n	%	n	%	n	%	n	%	n	%
2	5	10	25	9	22.5	14	35	5	12.5

e. Perceptions regarding fear of expressing real feelings in reflective journals

It is worth noting that half of the participants (50%) did not perceive that they may be victimized when expressing their real feelings. Only 20% of the participants felt they may be victimized. The number of uncertain participants (30%) is disconcerting though. These are presented in Table 4.26.

Table 4.26: Frequency distribution on ‘I may be victimized when I express my real feelings’

Strongly Agree		Agree		Uncertain		Disagree		Strongly Disagree	
n	%	n	%	n	%	n	%	n	%
3	7.5	5	12.5	12	30	16	40	4	10

f. Overall perceptions regarding barriers of effective writing of reflective journals

Figure 4.12 is a graphical illustration of all the perceived barriers of journaling as viewed by the participants. The results indicate that the participants were generally positive and supportive of the use of reflective journals. A significant number of participants (about 40%) did not perceive that they may be victimized when expressing their real feeling in their journals. A further 38% felt confident in their reflective writing abilities. Writing of reflective journals was not seen as a threat as 35% of participants did not feel uncomfortable revealing personal feelings in their journals and approximately 27 % of participants expressed that the benefits of journaling were clear to them.

True barriers identified by the participants included about 33% who viewed journaling to take too much of their time. The other concern expressed by approximately 43% of participants was being limited by their command of language in the writing of journals.

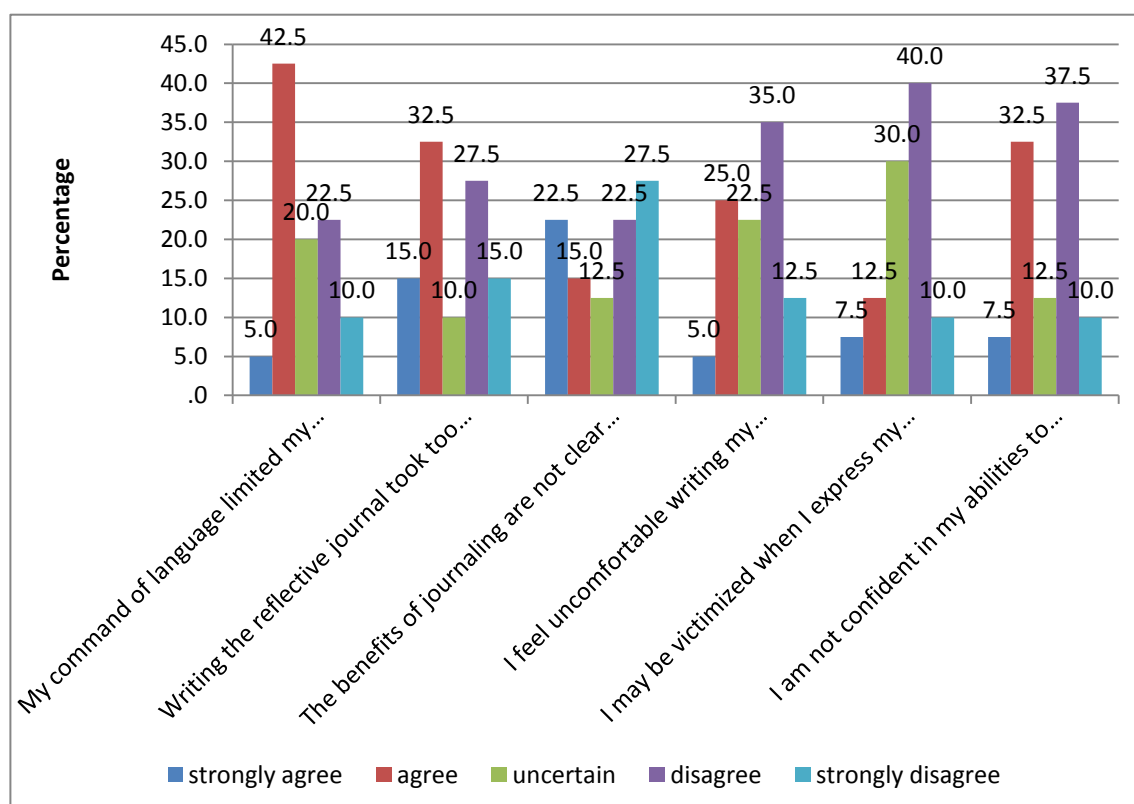


Figure: 4.12 Perceived barriers to reflective journaling

4.5 EMERGING THEMES FROM THE PARTICIPANTS' REFLECTIVE JOURNALS

During phase 1, the content of each reflective journal was read thoroughly to get in-depth information on how the participants experienced their clinical learning, and how these impacted on their personal, professional and clinical development. Four main themes were identified. Presentation of the themes and their subthemes (see Table 4.27) will be discussed hereunder with selected extracts from some of the participants' reflective writings.

Table 4.27: Overview of the themes and the sub-themes

THEMES AND SUB-THEMES	
Theme 1	Professionalism
Sub-theme 1.1	Ethics and professional behaviour
Sub-theme 1.2	Role modelling
Theme 2	Personal reflection
Sub-theme 2.1	Feelings of fear, shock, anxiety
Sub-theme 2.2	Low self-esteem and depression
Theme 3	Clinical learning
Sub-theme 3.1	Clinical placement
Sub-theme 3.2	Student status
Sub-theme 3.3	Availability of learning opportunities
Sub-theme 3.4	Student supervision
Theme 4	Reflective learning
Sub-theme 4.1	Questioning and information seeking
Sub-theme 4.2	Higher order thinking skills e. g .Making connections and Critical thinking, problem solving, theory practice gap

4.5.1 Ethical and professional issues

The participants wrote their own good and bad experiences encountered during clinical placement.

Commenting on an incident concerning a 19 year old that was refusing to push during labour: *"...the sister got angry with her and said we must leave her to give birth on her own, but girl was tired to push. When sister slapped her, she kept quiet"*. (RJ 1: 9).

This student felt helpless and was surprised that the doctor did not intervene during this unprofessional behaviour. *"...the sister was shouting at the patient that*

no one sent her to get pregnant, she is so young to have 2 kids and she got what she deserved as she became HIV positive at this age..." (RJ 1: 30).

This student witnessed a disturbing response from a sister after a mother had an intrauterine death and the student was left to comfort the patient. *"...your baby is dead... don't even begin to cry because you deserve it..."* (RJ 1: 11)

This unethical behaviour shocked and left the student embarrassed. *"...I felt so embarrassed by seeing professional nurse giving the patient cigarette in front of operational manager...felt sister was promoting smoking to mental health users."* (RJ 2: 24)

It is encouraging that there were also good ethical and professional attitudes that the students witnessed as was recorded in the following excerpt. *"...the sister that intervened was very sensitive and also calm, displayed a polite and empathetic attitude. She motivated me with her professionalism."* (RJ 1: 4)

4.5.2 Clinical decision making/reasoning

The participants recorded in their reflective journals incidents where they observed good clinical decisions being taken by sisters and/or doctors. This made them feel confident in nursing as a profession. Conversely they were disappointed when poor clinical decisions were taken by professionals.

This clinical decision left the student confident in the registered nurse and herself. *"...the sister was fair because she did not say that she was going to take over the procedure from me, but instead she told the patient to cooperate because I'm helping her..."* (RJ 1: 33)

Commenting on a baby who had meconium aspiration and student was anxious and then relieved as when she witnessed the good clinical decisions of the professional staff. *"...the sister and the doctor did their best to resuscitate the*

baby using CPAP (Continuous positive airway pressure), and the outcome was positive". (RJ 1: 26)

This student was surprised at the up-to-date knowledge of the registered nurse. *"... it was my first time witnessing a shoulder dystocia...but seeing the sister successfully perform the complicated delivery step by step, the same method I learnt from school, it motivated me". (RJ 1: 35)*

After successful management of eclampsia, one student remarked after witnessing good clinical decisions take during an emergency situation: *"...the experience was very good and the sister was very helpful as they involved us to participate and explained everything to us". (RJ 1: 20)*

4.5.3 Clinical learning

Some of the challenges expressed by students were due to clinical placement, which left students with feelings of confusion and helplessness, as can be seen in the comments below.

"...our level of training was not recognised and we were allocated to work with ENA's doing very basic nursing skills". (RJ 1: 31)

"...But when we asked questions, we were told we are senior enough to know, or sometimes told to go and read our books". (RJ 1: 31)

"...to protect patients....we are only allowed to do vital signs no matter our level of training, while we should be involved with giving patients medications and preparing theatre case...". (RJ 1: 27)

Expressing feelings of perplexity a student wrote: *"...the sister was not letting me to deliver the patient, but she was there, I felt she did not trust me". (RJ 1: 6)*

This student felt that placement can compromise participants' clinical learning. *"....they must allocate one student at....Clinic, because the sister is willing to work but the clinic has little exposure of only one or two psychiatric patient per day". (RJ 2: 8)*

4.5.4 Student status

Students wrote in their reflective journals about their status where they sometimes experienced unwelcoming attitudes from registered nurses, lack of trust and confidence in their abilities and sometimes were used as scapegoats when things went wrong.

The following excerpts expressed areas of good support for the students where they felt they belonged and were trusted.

“...the sister grabbed me by the hand and we ran to the resuscitation room to prepare ... during the resuscitation the sister asked me to call nursery and ask for paediatrician...” (RJ 1: 17)

“...the sister called and showed us the step by step management of eclampsia... the midwives and doctors were willing to answer our questions and help us to correlate theory and practice”. (RJ 1: 15)

In the following excerpt, a student admired and was pleased with the team work displayed by staff under a crisis. *“...an accoucher called us to observe and took us step by step on how to deliver face presentation”.* (RJ 1: 20)

The following were some of bad experiences which negatively impacted on the student's confidence and trust.

“...few days after a baby was discharged, we received a report that a preterm baby discharged by a student died”. A nursing manager addressed students on the issue but we felt we were not the ones that did the final examination and discharge of the baby. It is not our fault that the permanent staff is always rushing to finish while they do not do a correct thing”. (RJ 1: 16)

“...sister asked to come confirm a per vaginal (PV) exam for a student midwife. She did not come on time as she thought patient cannot be 8cm since she was a

primigravid. I was so sad because the patient delivered under an environment which was not secured ... the sister should have come to checksisters tend to take things for granted". (RJ 1: 21)

4.5.5 Availability of learning opportunities

Students expressed many learning opportunities and how these were positively utilised by them under supervision of registered nurses.

"...as soon as the patient was placed on the bed, I immediately put her on a cardiotocography to monitor the fetal heart and contractions". (RJ 1: 5)

"...during my placement at the X hospital I came upon a chance to do the mental state examination following the GAPTOMJIVIR method...sister did the first one to show us on the real patient.....when doing my interview, the sister was there to assist. I felt good but nervous". (RJ 2: 12)

"...Sr X said we should inject the client with flepenthixol depot 60mg, it became difficult because the patient had aggressive behaviour. We had to call security that helped and we were able to inject him..." (RJ 2: 28)

4.5.6 Supervision of students

Student supervision promotes clinical learning and gives student confidence that they are being correctly guided towards competence. The following excerpts show how good supervision impacted positively on them.

"...it was the first time I did the mental state examination on a real patient ...under supervision, the sister made me feel very confident during the procedure, this gave me power and strength to do it without any fear...." (RJ 2: 29)

“...asked the sister to check our findings on abdominal palpation and ultrasound, she confirmed the findings...I felt very happy and the sister had trust in us. (RJ 1: 36)

Poor supervision can impact negatively and leave students with feelings of doubt and lack of trust on their immediate role models the registered nurses and also feelings of uncertainty if they were doing the correct thing if left unsupervised. The following excerpts demonstrate these issues.

“...it was my first time to come across this situation, dealing with an aggressive patient....I had no registered psychiatric nurse to supervise and help me as the ward was short of staff...I saw this as dangerous to me”. (RJ 2: 28)

“...I did what was best of me at the time, I wish I was able to do the mental state examination independently.....we must all get the chance to do some skills by practising in front of clinical facilitators to gain confidence before going to clinical placement...”. (RJ 2: 8)

“...the doctor ordered the nasogastric tube for one of the babies, i was so afraid...nobody wanted to help me ...sister “you the one who did doctor’s rounds so you on your own”...baby was crying adding to the fear...I was afraid if baby choked, blocked or something...I got it in the first attempt...I was so angry and wanted to go home...but stayed I want to help people...” (RJ 1: 10)

4.5.7 Personal development

Participants’ personal reflection was evident in the fears, anxieties, excitements, disappointments, self-reflection expressed in the journals. In some instances they expressed how they cope in challenging situations.

Feelings of sympathy for a 22 year mother who had an intra-uterine death (IUD), one student wrote: *“I felt sorry for the mother because it was her first baby and was still very young”. (RJ 1: 31)*

After a patient the student helped to deliver had post-partum haemorrhage (PPH), this student began to self-blame. *“... a number of thoughts ran through my head... thinking what I did and what I failed to do...keep visiting the post natal ward to check...”* (RJ 1: 39)

Following a fresh stillbirth the student assisted to deliver, one student commented: *“...I was shocked and asked myself what I had done wrong”*. (RJ 1: 29)

Feeling despair and helpless, a student writes about a 28 year old primigravid who had preeclampsia and whose baby died: *“...I felt very bad and hurt that this situation had to end this way because with proper prenatal management this could have been prevented”*. (RJ 1: 3)

4.5.8 Reflective learning

Reflective journals revealed that students were developing as reflective thinkers through aspects of critical thinking, for example through questioning and information seeking, as seen in the following excerpts.

“I wanted more information to discover this way of giving medication, the nursing staff I had a conversation with told me that the patients used to refuse medication and some run away or hide the medication... so they discovered that if given with yoghurt during lunch time, patients loved it...”. (RJ 2: 13)

“...My first interview was a patient with schizophrenia. According to Blackwell’s Nursing Dictionary, Schizophrenia is defined as a large group of mental health illnesses characterized by....” (RJ 2: 12)

“...I was asking myself about the drugs such as Lorazepam, and discovered from Dreyer (2007: 70) that this drug can cause over-sedation and dependency, haloperidol can cause tardive dyskinesia (chewing movements and smacking lips...)”. (RJ 2: 16)

“ ...to meet my objectives....how to admit the mental health care user in a psychiatric ward....I have learn from text book Mental Health Nursing...”. (RJ 2: 40)

Students' journals demonstrated evidence of making connections, using theory to solve identified clinical problems and making accurate clinical decisions as shown in the following excerpts.

“...when I arrived, I saw a patient with blood on her bed...so I went to her and took a careful look and realized that she was having Post-Partum Haemorrhage..., I immediately shouted for the sister...it clicked that I was in postnatal ward and so things like these do happen”. (RJ 1: 35)

“...the next PV examination was due at 02.00...I noticed there was no change and fetal heart starting to dropI then thought it might be obstructed labour because the patient was a primigravid so it might be cephalo-pelvic disproportion”. (RJ 1: 37)

“...I delivered the placenta actively I injected her with 1mls of Pitocin 10 units intramuscularly on the thigh, then I rubbed the uterus and waited for the signs of placenta separation,...I expelled the clots and made sure there were no retained products”. (RJ 1: 18)

4.6 CONCLUSION

In this chapter, the researcher presented qualitative data analysis from analysis of the two reflective journals of the 40 participants. The quantitative data from perceptions of participants with regard to the writing of reflective journals was also analysed and presented. Themes emerging from analysing the content of the reflective journals were identified and presented. The findings will be discussed in the next chapter.

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 INTRODUCTION

In the previous chapter, the research results were presented. This chapter focuses on discussion of the results. The discussion is based on the following study objectives:

- Determine undergraduate nursing students' levels of reflection at the beginning of reflective journal writing;
- Determine the undergraduate nursing students' levels of reflection at the end of a semester clinical placement; and
- Assess the undergraduate nursing students' perceptions of reflective journal writing with regard to personal, professional development as well as whether reflective journaling has influenced their clinical learning.

Conclusions will be drawn and limitations to the study, as well as recommendations will be presented.

5.2 LEVELS OF REFLECTION

The participants' reflective journals were analysed for levels of reflection. The participants began their journaling displaying lower reflective levels in their first journal entries. The average of reflection was 42.43. Similar findings were reported by Richardson and Maltby as cited by Kimczak (2002) where undergraduate nursing students' participants generally performed at the lower levels of Mezirow levels of reflexivity. In addition the participants' critical reflection levels were very low. This is also supported by Wong, Kember, Chung and Yan (1995), Fakude and Bruce (2003), Epp (2008) and Bagnato, Dimonte and Garrino (2013) who reiterated the same observations in their studies where a high proportion of second and third year students demonstrated descriptive journaling and very low levels of critical reflection. Wong *et al.* (1995) further explain that the students displayed little awareness of the contextual factors with concrete

thinking and minimal evidence of abstract thinking. In the same breath, Wong *et al.* (1995) caution educators that the group of students who have not been able to demonstrate evidence of the reflective elements is not a lost cause as they have learned to devise plans, and implement thoughtful actions. Their downfall is the inability to turn the experience into another potential learning opportunity. Botes, as cited by Mangena and Chabeli (2005) and Makhathini and Uys (1996) discovered that there is a tendency by students not to fully engage with problems in their everyday practice resulting in lack of depth and reflection. Makhathini and Uys (1996) add that the emotional engagement with the problem at hand sometimes overshadows the problem solving attitude of students. Chong (2009) and Gustafson and Bennett (2002) argue that it is ultimately up to the student who is motivated and mentally prepared to take on reflective tasks and enjoy the benefits that come with it.

Although these students in this study had engaged with reflective journaling in their first year of study, the levels of reflection were never evaluated and there were no clear guidelines. Lasater and Nielsen (2009) Johns (2010) and De Swart, Du Toit and Botha (2012) agree that some students can benefit from a structured or guided process of journaling to help with reflection especially when it is a new concept to them. The writing of the first journal coincided with midwifery clinical placement for the students in the study where they were novices. According to Benner, Tanner and Chesla (2009: 10), novices present with theoretical knowledge when they come to the clinical setting and have yet to gain real practice to actively participate. Levette-Jones and Lathleen and Lathlean (2008) and McKenna *et al.* (2013) concluded that during initial periods of clinical placements, students undergo feelings of uncertainty and need time to better acquaint themselves with the staff, patients and the ward. This feeling of belongingness is vital and better prepares them to utilise available learning opportunities. Gustafson and Bennett (2002) add that students' skill and experience in reflective thinking during first placement in the area and first exposure to certain clinical events are important factors to be considered in making judgements about reflective ability of students.

Guided reflection played a vital role to assist the students in this study to improve the writing of their reflective journals, providing them with guidelines which were easy to follow and which challenged their thinking with regard to the clinical situations which they encountered. When the researcher gave the students feedback and further guidance following assessment of their first journal, there was a noticeable improvement of reflection with an average of 59.30 in their second journals. Judging by this improvement, it was evident that the feedback given to them played a big role. This is congruent with studies by Taylor-Haslip (2010) and De Swardt *et al.* (2012) who also witnessed improved levels of reflection after guided reflection with feedback. Consequently in this study, the number of reflective participants increased by 47.5%. Only one participant, 2.5% (n=1) obtained an increased critical reflection scoring above 75% indicating critical reflection took place. Critical reflectors give a broader perspective on the experience; display a clear analysis of the experience and how it has contributed to personal, professional and knowledge (Wong *et al.* (1995: 54). The critical reflector participant's analysis clearly stated and reflected on what could have been done to prevent the situation and what can be done to achieve improved readiness for future occurrences. In addition, the participant was able to describe various strategies to improve performance and clearly displayed a changed perspective on the situation and offered future action plans and readiness should same event occur. This is supported by Wong *et al.* (1995; 54) who stated that critical reflectors were able to critically examine the experience and themselves and frame the problem in context, while "adopting a wide and multidimensional perspective in dealing with the issue at hand". The highest number of participants 85% (n=34) scored between 50-74%, indicating that they were reflective. This is supported by Wong (1995) where the students were able to give adequate information about their experiences, and sometimes turned them into new learning opportunities. Relationships between prior knowledge and/or feelings with new knowledge and/or feelings were explained and they were able to modify what was known to new situations, arriving at insights and possible ideas where necessary.

At the end of the study, a significant number of students reached reflective levels. This positive result is encouraging and is the reason for this study. The

researcher succeeded in elevating these students from reflective journals which were merely descriptive and lacked reflection to a reflective level. These students were only in their second year of training and it is envisaged that they will continue to develop and reach critical levels of reflection.

5.3 HOW THE REFLECTIVE JOURNALS WERE USED BY THE STUDENTS

This research study set out to evaluate how the students in the study used reflective journals during their clinical learning and practice. Students used their reflective journals for various reasons as evidenced by their perceptions and emerging themes. Journals were used to discuss issues pertaining to personal development, professional development, clinical learning. From the students' responses, perceived barriers of reflective journaling will be added to the discussion. Professional development will now be discussed with regard to how the students perceived its impact on their clinical learning.

5.3.1 Professional development

Participants perceived that the writing of reflective journals positively impacted on their ability to correlate theory with practice, their problem solving skills, ability to re-define experiences and problems, ability to make proactive decisions and take prompt corrective actions, and ability to use past experiences to prevent future occurrences.

Similar results were obtained by Klimczak (2002) where the students expressed that the sum total of their clinical experiences contributed towards their professional development. They related how writing their analysis of their actions, thoughts and feelings in a reflective journal helped them to view nursing practice holistically.

Participants in this study also journalled on incidents where they observed good professional decisions being taken by sisters and /or doctors. This made them feel confident in nursing as a profession. Studies by Klimczak (2002), Langley

and Brown (2010), Harris (2005) and Callister *et al.* (2009) yielded similar results and were in agreement that professional development can be greatly enhanced during clinical practice. The students grow towards ethical awareness, and confidence levels are increased while they are able to find professional solutions during their clinical practice. Callister *et al.* (2009) add that students grow in “being ethically prepared for clinical practice, becoming an effective advocate for patients, becoming more confident in resolving ethical dilemmas and conflict in clinical practice, practicing virtue ethics, and becoming a future leader among nurses demonstrating ethically appropriate behaviour and actions”.

The students reported their disappointment when they sometimes observed unprofessional behaviour and poor clinical decisions taken by professionals. Chabeli (1999) and Langley and Brown (2010) concur that professional socialisation of a nursing student can be positively or negatively affected during clinical learning. Students in the study by Chabeli (1998) also perceived poor role modelling by professionals who displayed unethical, uncaring and unhelpful attitudes towards their patients. The Department of Health (2012: 24) reported incidences of lack of professionalism and unethical conduct, with nurse-patient relationships characterised by poor communication, and incidents of violence and abuse. Brown and Sorrell (1993) are concerned that the student nurse who witnesses such unprofessionalism will copy and internalise these behaviours. The students in the study by Mansbach, Ziedenberg and Bachner (2013) were so overwhelmed by some serious unprofessional acts and poor clinical decisions that sometimes they wanted to “blow the whistle”.

5.3.2 Personal development

Students perceived that the writing of reflective journals impacted positively on their personal development. They agreed that the writing of journals empowered them to examine their own attitudes and perspectives in relation to a given experience. Klimczak (2002), Shaban *et al.* (2012), Langley and Brown (2010) and McMillan-Coddington and Weyers (2013) recorded similar findings in their studies. Students in Klimczak’s (2002) study agreed that through journaling they

were able re-examine their own perceptions, attitudes and preconceived ideas towards a given situation. The students also stated that the writing of journals made them aware of their strengths and weaknesses, a notion supported by Klimczak (2002), where students evaluated their own values and actions while writing their journals. Writing of reflective journals was perceived to assist the students with development of coping skills during their clinical experiences. Shaban, Khater and Akhu-Zaheva (2012) supported these findings and found that the students sometimes engaged in avoidance behaviour to cope with threatening situations in the clinical environment. Klimczak (2002) added that when students were not prepared for clinical encounters, they found some way of coping with their fear.

Participants felt the writing of journals gave them a platform for their voices to be expressed, they felt their confidence was improved, and their writing and recording skills were enhanced. The students used the reflective journals for self-reflection to express their fears, anxieties, excitements and disappointments. McMillan-Coddington and Weyers (2013) states that reflective journal writing motivated students engaged in “introspection and retrospection” practices during their clinical practice.

A recognisable aspect of this study was how students used their reflective journals in expressing their emotions. Feelings of fear, empathy, panic, anxiety, helplessness, excitement and sometimes embarrassment were clearly expressed. In the first journal, a significant number of students 55% (n=22) were reflective in the area of feelings and the same number of students were critically reflective in the second journal. The students fully described their feelings and thoughts and elaborated on their physical and mental state. Similarly, studies by Fakude and Bruce (2003), Bagnato, Dimonte and Garrino (2013), McKenna and Rolls (2011) and Wong *et al.* (1995) highlighted the significant role of feelings, how the students recognise their own and the feelings of others. The study by Fakude and Bruce (2003) had similar findings where the reflective journals demonstrated exploration of thoughts and feelings. The emotions evoked by traumatic experiences were clearly stated by the students. This was evident in midwifery

clinical encounters of abortions, intrauterine deaths and infant deaths. Students expressed “wanting to cry” in several journals. These was also observed in the journals explored by McKenna and Rolls (2011) where the students expressed a feeling of “wanting to cry” but were not sure if such behaviour was acceptable.

Notwithstanding the unethical and unprofessional role modelling by professionals, the empathetic feelings shared by students when young mothers were “ill-treated” by registered nurses was interesting. It was commonly noted by the researcher, in her own opinion, that it had something to do with their age and that they will have to go through similar experiences when it will be their turn to be nursed by the midwives. The reflective journals also revealed the emotional responses of students during their mental health placements. This is supported by Happell and Rushworth (2000) who found that students shared how they were often afraid of psychiatric patients, regarding them as “dangerous, unpredictable, and incurable”.

Contrary to the above, some students may not have revealed all in their journals as a small percentage of students were not comfortable in openly sharing their feelings. Wong *et al.* (1995: 55) agree that students sometimes write with some reservation and may withhold some information especially if it is feared their grading may be affected.

5.3.3 Clinical learning

(a) Theory-practice gap

A significant number of students agreed that journaling promoted understanding of their learning outcomes and that their active participation and ownership of learning increased. They verbalised being able to apply theory from the clinical skills laboratory to real clinical situations. Students were able to list evidence of active participation through allocated tasks for example reality orientation, medication interviews and doctors’ rounds. Paget (2001), Taylor-Haslip (2010) and Joubert and Hargreaves (2009) agree that reflection influences clinical practice. Joubert and Hargreaves (2009) add that this ability to apply theory to practical experiences causes excitement and motivates students towards higher

levels of reflection. Langley and Brown (2010) also found that the students favored reflective journaling as a vehicle that narrows the theory-practice gap. Participants perceived increased ability to reflect and think and were stimulated towards searching for more knowledge in preparation for future experiences and they perceived improved observation skills through journaling. The findings by Dhavana-Maselesele, Tjallinks and Norval (2001) disagreed and found a lack of application of theory to clinical practice by students in their study.

(b) Clinical learning environment

The clinical learning environment is vital for successful clinical learning to take place. This environment offers clinical learning opportunities where the student makes connections with theory learned in the classroom and therefore develops towards a competent clinician. Human interactions between qualified professionals and the students play a key role in what and how the student learns. This is supported by Gustafson and Bennett (2002: 3-10) who argue that the nature of the physical environment as well as the nature of the interpersonal environment play a pivotal role the students' achievement of reflection.

Students expressed some positive and negative experiences in the clinical environment. Negative experiences left students with feelings of confusion and helplessness. Students perceived clinical placement in private hospitals as not conducive to their clinical learning as they experienced being undermined and not trusted by the staff even when they were directly supervised. They also expressed not being able to apply their knowledge to practice when they were denied opportunities. Moreover, the attitude of staff towards students was perceived as condescending when they were allocated procedures below their level of training. It was confusing at times that the same clinical staff had high expectations from the students especially when students enquired on some clinical issues. Students in a study by Shaban (2012) had the same observations where students were not welcomed by staff and also staff had high expectations.

(c) Clinical placements

Students used their reflective journals to voice out concerns and even recommendations regarding clinical placements. They were able to observe compromising clinical placements where they were unable to practice skills due to either few professional staff or few patients with relevant diagnoses to meet required clinical outcomes. This is reiterated in studies conducted by Carlson, Kotze and Van Rooyen (2003) and Shaban, Khater and Akhu-Zaheya (2012) which proved that clinical learning environments are not always conducive for effective clinical learning. Shaban *et al.* (2012) stated in their study that students indicated that most of their clinical opportunities were wasted by doing non-nursing duties and due to the unwelcoming environment and clinical staff.

(d) Student supervision

It was encouraging that students expressed availability of many learning opportunities and how these were positively utilised by them under supervision of registered nurses in some of the clinical facilities. Being supervised was viewed by students as promoting their clinical learning and it gave them confidence that they were being correctly guided towards competence. Poor supervision impacted negatively on the students leaving them with feelings of doubt and lack of trust in their immediate role models (the registered nurses) and also feelings of uncertainty if they were doing the correct thing if left unsupervised. Similar concerns were raised by students in the study by Chabeli (1998) where they expressed that where there is “lack of continuous, effective clinical supervision, assessment and evaluation” of students, the progression towards clinical maturity and competence will be greatly affected. The findings further state that lack of supervision of students may lead to cases malpractice. It is refreshing to note that some professionals are keen to mentor nursing students and to use available clinical opportunities in teaching and guiding students to obtain necessary clinical skills (Halcomb, Peters and McInnes 2013).

(e) Clinical simulations

A small number of students expressed concerns regarding simulations conducted at clinical skills laboratories. They felt unprepared to face real life situations if they were afforded very little practice before clinical placement. This negatively impacted on their confidence in handling mental health patients. Houghton, Casey, Shaw and Murphy (2012) and Stayt (2012) argue that the use of mannequins is suitable when it was impossible to practise skills on real peoples and adds that high-fidelity human simulators are valuable resource. However, in this study, it was perceived that mannequins lacked realism and students found it difficult to practise communication skills with them. The study by Roh, Lee, Chung and MiPark (2013) supported the use of simulated clinical experiences to enhance future performance in real life situations.

(f) Student status

Students' status is another major issue in nursing education. Students wrote in their reflective journals about their perceived factors which positively or negatively affected their student status during clinical learning. Not only were they faced with unwelcoming attitudes from professional nurses, but they were sometimes treated with mistrust and their abilities were undermined. Some registered nurses went to the extent of using them as scapegoats when things went wrong. It must be noted that these students wanted to be actively engaged and allowed to gain competence under supervision. These findings concur with the findings in the study by Chabeli (1998) where students argued that if they were used as workforce, they were unable to reflect on their experiences to facilitate clinical learning. On the other hand, supernumerary status may disadvantage students when they merely "observe" and not actively participate leading to unpreparedness to function on completion of their training (Department of Health 2012: 22).

5.4 PERCEIVED BENEFITS OF REFLECTIVE JOURNALS

The reflective journals revealed that students were developing as reflective thinkers through aspects of critical thinking for example questioning and information seeking. Participants in the study by Harris (2006) recorded how participants were so challenged and curious about some of their experiences, that they used journal articles and other relevant sources to seek and verify information.

Students' journals demonstrated evidence of making connections, using theory to solve identified clinical problems and making accurate clinical decisions as shown in the following excerpts. Higher order thinking, critical thinking and making connections were evident in their journals. At the end of their journaling, there was strong evidence (95%) that students were developing in evaluating their clinical experiences as they were able to fully describe what was good and bad about the experience from all angles. Students grew in analysing their clinical experiences with one outstanding participant giving a broad perspective on the experience and its general impact on the student and the nursing profession. This is congruent with Harris (2005) who witnessed in her study how the reflective "assignment forced nursing students to reflect with understanding and reading became an active process as students used analytical questions to identify, understand and see relevance of issues".

Students were generally clear on the benefits of reflective journaling. A significant number of participants disagreed that the benefits of journaling were not clear to them. Langley and Brown (2010) stated that student motivation may be affected if they do not understand the purpose and benefits of writing reflective journals. Furthermore, they state that this may lead to passivity during the process and cause students to remain non-reflectors.

5.5 PERCEIVED BARRIERS TO REFLECTIVE JOURNAL WRITING

Students viewed freedom of expression, language and writing ability and time as true barriers in this study. These will be discussed hereunder.

5.5.1 Freedom of expression

A very small percentage felt they feared victimization resulting from what they divulged in their journals. Similar feelings were expressed by students in the study by Bagnato, Dimonte and Garrino (2013) where students expressed feelings of embarrassment and uneasiness about what they wrote. Furthermore, some students alluded that “anonymity of the journals would ensure greater freedom in expressing and describing their experiences”. Gustafson and Bennett (2002: 3-10) assert that students will not fully divulge information if they feel insecure. To avoid such occurrences, students verbalised withholding some of the “truths” in their journals.

5.5.2 Language and writing ability

A significant number of participants (47.5%), perceived their command of language as limiting to the writing of journals. The perceived language barrier was also stated by Wong et al. (1995) where students stated that they may be hampered by their writing capability and the command of English. Hendrix et al. (2012) and Harris (2005) support this statement and were concerned that some nursing students experienced difficulty in writing articulately especially if English is their second language. Langley and Brown (2010) found considerable disagreement between students and faculty that the use of reflective journaling improved writing skills.

5.5.3 The time factor

Participants appeared indecisive about whether writing a reflective journal took too much of their time as there was little difference between participants who agreed

and those who disagreed. Lack of time for reflection was also observed in the study by Langley and Brown (2010) and Glaze cited by Chong (2009) where students believed they needed more time especially if they were to change their perspective, further asserting that transformation is a process which develops over time.

5.6 CONCLUSION

This study was based on the use of guided reflective journaling by undergraduate nursing students during their clinical learning and practice. Using the reflective journals written by students and eliciting the participants' perceptions of reflective journaling, proved to have been valuable instruments to capture the following points:

- Students' levels of reflection; and
- Determine their perceptions with regard to their clinical learning.

The researcher was able to determine levels of reflection of students and as the findings show found that their reflective levels were low with the initial journal. The second journal findings displayed improved levels of reflection with one participant reaching critical reflection level.

Gibbs' Reflective Cycle of 1988 proved to be user-friendly with students and they found it easy to follow when they were guided. It helped the researcher to identify the areas of reflection where the students are stronger and areas where they have challenges. This information was used by the researcher during guidance of students, and it proved successful in improving the reflective levels in their second journal.

It was evident from the results of the study that students supported the use of reflective journals and appreciated it for the improvement in their personal, professional development and clinical learning. The challenge of their language was identified as a true barrier by students and will need further research.

5.7 LIMITATIONS OF THE STUDY

The study was conducted in a single university and the study findings may therefore not be generalised. However, the results will be used within the same university to increase reflective levels of students. Two reflective journals appeared inadequate at the end of the study. Most students progressed from non-reflection to reflection by the end of the study. A third journal may have given a clearer picture regarding the reflective levels of students. The researcher feels this would have given a chance for most to reach critical reflection.

It became clear during the process that students needed more guidance from the researcher but due to time constraints, it was not possible to spend more time to engage with the students. It also became clear that the clinical facilitators who work with the students need development with regard to guiding the students, giving feedback and grading of reflective journals. The researcher embarked on empowering clinical facilitators as the need arose concurrently. The timing of the study coincided with first time clinical placements in midwifery and mental health and this may have affected clinical learning and reflection as students were “beginners” in these specialised areas.

5.8 RECOMMENDATIONS

Based on the results of this study, the following recommendations are made with special reference to clinical education, clinical placements of students and orientation of staff on their role in student clinical learning and professional development. Recommendations for further research are based on the findings of the study.

5.8.1 Clinical education

Nursing education becomes complete when student nurses can practice as reflective practitioners (Osterman and Kottkamp 1993). The hidden skills embedded in this development of reflective practitioners, are personal

development, professional development, reflective and critical thinking skills. The use of reflective journals remains a valuable tool in nurse education. Common assessment and teaching strategies are limited in developing critical thinking of students in clinical teaching. During reflection, the student develops into a well-rounded professional who is not merely theory or qualification oriented. It is impossible to teach and evaluate these hidden professional and personal attributes. Through students writing, educators are able to critically observe the thinking behind the person and the behaviour and then apply relevant remedial actions (Callister *et al.* 2009).

Student writing and language abilities must be considered in order to give appropriate guidance to students. The students' voice must be taken seriously in order to foster open communication channels through reflective journaling. Their views and concerns must be considered. Gibbs' Reflective Cycle proved once again to be simplistic but at the same time challenged students to think about what to do next while deepening their reflective abilities when they evaluate, analyse and think about new perspectives to the matter at hand. A joint attempt by all involved in nurse education and clinical practice will greatly enhance levels of reflection and therefore development of reflective practitioners. Faculty must spend time and money to make sure every staff member receives necessary skills to effectively teach, guide and support students.

5.8.2 Clinical placements of students

Purposeful planning of student placement is pivotal for effective clinical learning where students will have adequate exposure to develop their reflective and critical thinking abilities. Clinical staff and clinical educators must have a common understanding that they are jointly responsible for the development of the student. It is hoped that this will facilitate a conducive clinical learning environment where the student feels welcome and confident. The issue of placing students in private hospital need further research as students expressed their concern regarding the effectiveness of these as clinical learning sites.

5.8.3 Orientation of staff in the clinical facilities

Clinical facilities are approved by the SANC when they meet the human and material resources for student placement. It is recommended that clinical staff be reminded of their role in developing the student of nursing towards an ethical and professional person which the nursing profession will be proud of. Once a facility is approved, nurse managers must re-orientate their staff with regard to their responsibility to role model professional behaviour in the presence of nursing students.

5.9 FURTHER RESEARCH

The effect of writing reflective journals on students who are English second language speakers needs further investigation. Students in this study expressed concern regarding student status and effective clinical learning in private hospitals. Further research on this matter, may shed some light.

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Appendix1: DUT ethics clearance



INSTITUTIONAL RESEARCH ETHICS COMMITTEE (IREC)

20 November 2012

IREC Reference Number: REC 53/12

Ms H T Mahlanze
10 Margerite Place
P O Eastwood
Pietermaritzburg
3201

Dear Ms Mahlanze

Evaluation of the use of guided reflective journals during clinical learning and practice by undergraduate nursing students at Durban University of Technology

I am pleased to inform you that Full Approval has been granted to your proposal REC 53/12.

The Proposal has been allocated the following Ethical Clearance number IREC 046/12. Please use this number in all communication with this office.

Approval has been granted for a period of one year, before the expiry of which you are required to apply for safety monitoring and annual recertification. Please use the Safety Monitoring and Annual Recertification Report form which can be found in the Standard Operating Procedures [SOP's] of the IREC. This form must be submitted to the IREC at least 3 months before the ethics approval for the study expires.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC SOP's. In addition, you will be responsible to ensure gatekeeper permission.

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Please note that you may continue with validity testing and piloting of the questionnaire. Research on the proposed project may not proceed until IREC reviews and approves the final questionnaire.

Yours Sincerely



Dr D F Naude
Chairperson: IREC

Appendix 2a Permission letter to the Research Director at DUT



Research Director

Durban University of Technology
P.O. Box 1334
Durban
4000

Dear Prof Moyo

REQUEST TO CONDUCT A STUDY AND USE OF SECOND YEAR UNDERGRADUATE NURSING STUDENTS AT INDUMISO CAMPUS AS PARTICIPANTS

I am an M Tech student at Durban University of Technology in the Department of, Nursing. I am employed at Indumiso Campus in Pietermaritzburg as a clinical instructor. I am requesting to conduct a study and use second year undergraduate nursing students as participants. My topic is "Evaluating the use of reflective journals during clinical learning and practice by undergraduate nursing students.

The reflective journals written by second year undergraduate nursing students during their clinical placement will be collected and analysed to evaluate whether they are developing and becoming reflective thinkers. In addition they will be requested to complete a questionnaire to enrich the study and get their perspective on the reflective process.

The participants involved in the study will be given written and oral guidelines on how to write their reflective journals. They are expected to submit one reflective journal after each clinical placement of one semester. They will participate on a willing basis and may withdraw at any time if they do not want to continue. Participants will write the journals at their own leisure time as long as they keep to submission deadlines which will be agreed upon with them. The participants will also complete a survey questionnaire to express their views on the journaling process. I have attached my research proposal for you to look at. Your approval and support will be highly appreciated.

Yours sincerely

.....
Ms HT Mahlanze
M Tech: Nursing

.....
Mrs S Govender (Lecturer)
Supervisor

.....
Dr MN Sibiya (HOD: Nursing)
Co-supervisor

Appendix 2b: Approval letter to the Research Director at DUT



D U R B A N
UNIVERSITY of
TECHNOLOGY

Directorate for Research and Postgraduate Support
Durban University of Technology
Tromso Annexe, Steve Biko Campus
P.O. Box 1334, Durban 4000
Tel.: 031-3732576/7
Fax: 031-3732946
E-mail: moyos@dut.ac.za

04 March 2013

Ms HT Mahlanze
c/o Department of Postgraduate Nursing Studies
Durban University of Technology

Dear Ms Mahlanze

PERMISSION TO CONDUCT RESEARCH AT THE DUT

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research Committee (IRC) will grant permission to you to conduct your research at the Durban University of Technology.

We would be grateful if a summary of your key research findings can be submitted to the IRC on completion of your project.

Kindest regards.
Yours sincerely



PROF. S. MOYÓ
DIRECTOR: RESEARCH AND POSTGRADUATE SUPPORT

129



Appendix 3a Permission letter to Head of Nursing Department



Head of Nursing Department

Durban University of Technology

P.O. Box 1334

Durban

4000

Dear Dr Sibiya

REQUEST TO CONDUCT A STUDY AND USE OF SECOND YEAR UNDERGRADUATE NURSING STUDENTS AT INDUMISO CAMPUS AS PARTICIPANTS

I am an M Tech student at Durban University of Technology in the Department of, Nursing. I am employed at Indumiso Campus in Pietermaritzburg as a clinical instructor. I am requesting to conduct a study and use second year undergraduate nursing students as participants. My topic is "The use of guided reflective journals during clinical learning and practice by undergraduate nursing students".

The reflective journals written by second year undergraduate nursing students during their clinical placement will be collected and analysed to evaluate whether they are developing and becoming reflective thinkers. In addition they will be requested to complete a questionnaire to enrich the study and get their perspective on the reflective process.

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Yours sincerely

.....
Ms HT Mahlanze
M Tech: Nursing

.....
Mrs S Govender (Lecturer)
Supervisor

Appendix 3b: Approval letter from Head of Nursing Department



D U R B A N
UNIVERSITY of
TECHNOLOGY

Department of Nursing
Durban University of Technology
PO Box 1334
Durban
4000

7 March 2013

Ms HT Mahlanze
Student Number: 21242583
Department of Nursing
Durban University of Technology

Dear Ms Mahlanze

PERMISSION TO CONDUCT RESEARCH IN THE DEPARTMENT OF NURSING

Your correspondence dated 14th February 2013 regarding the request for permission to conduct a research study in Nursing refers. I am pleased to inform you that you are granted permission to conduct research in the Department of Nursing (Undergraduate Nursing Programme).

The Department of Nursing wishes you the best of luck with your studies.



pp Head of Nursing Department
Dr MN Sibiyi

THE HEAD OF DEPARTMENT - DEPARTMENT OF NURSING
DURBAN UNIVERSITY OF TECHNOLOGY
P.O. BOX 1334, DURBAN 4000
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Appendix 4a: Permission letter and consent for participants



INSTITUTIONAL RESEARCH ETHICS COMMITTEE (IREC)

LETTER OF INFORMATION

Dear Participant

I am grateful that you have agreed to participate in this study. Your participation and input is greatly valued. I hope we will have a good journey together during this study.

Title of the Research Study: The use of guided reflective journals during clinical learning and practice of undergraduate nursing students

Principal Investigator/s/researcher: Ms HT Mahlanze (BCur: Nursing), Clinical Instructor

Co-Investigator/s/supervisor/s:

Dr N.M. Sibiyi- Head of Nursing Department at the DUT (DTech: Nursing), Tel (031-373 2606)

Mrs. S. Govender - Lecturer Nursing Department DUT (MTech: Nursing) , Tel (033-845 9013)

Brief Introduction and Purpose of the Study: The writing of a reflective journal is one of the strategies to assist you to learn by recording critical events which occur during your learning. This study aims to look at the use of reflective journals during their clinical learning and practice. You will get a questionnaire as well to voice your opinions regarding your experiences during the study.

Outline of the Procedures: During the study your responsibility is to write two reflective journals, one at the beginning of the semester during your clinical placement, and another one at the end of the semester. You must submit each journal to the researcher on the dates that will jointly be agreed upon. Only students in the second year of study for the first time will participate in the study. This means that if you are repeating, you will not participate because you have not been formally introduced into reflective journaling. You will receive feedback as a group in class to help check your own level of reflection. You will also complete a questionnaire after you have submitted your two journals. Please be as honest as possible during this process and remember that confidentiality will be maintained.

Risks or Discomforts to the Participant: There will be no risks or discomfort to you during this study.

Benefits: You will benefit since the study is looking at your reflective journey. Studies have shown that students who engage in writing journals are able to share and learn from past experiences. This is important as a lifelong skill to become reflective practitioners.

Reason/s why the Participant May Be Withdrawn from the Study: You may withdraw at any stage of the study should you feel uncomfortable to proceed.

Remuneration: You will be paid no remuneration during this study.

Costs of the Study: No cost will be incurred by you during this study.

Confidentiality: Your name will not appear on the reflective journals and the questionnaire. The information you share will be treated with confidence and will be used only for the purpose of the study. A code will be allocated for each journal.





Research-related Injury: You will not be exposed to any risk or harm during the study.

Persons to Contact in the Event of Any Problems or Queries:

Please contact Ms HT Mahlanze (0827352875.), Mrs S Govender (0820621789) or the Institutional Research Ethics administrator on 031 373 2900. Complaints can be reported to the DVC: TIP, Prof F. Otieno on 031 373 2382 or dvctip@dut.ac.za.



Statement of Agreement to Participate in the Research Study:

- 



- Full Name of Participant Date Time Signature / Right Thumbprint

Full Name of Researcher _____ Date 06/5/2013 Signature _____

Full Name of Witness (If applicable) _____ Date _____ Signature _____

135

Appendix 5a: Reflective journal rubric (Adapted from Gibbs' Cycle of Reflection)

CRITERIA	<i>Critically Reflective</i> 5	<i>Reflective</i> 3	<i>Non reflective</i> 1
<i>Description</i>	Fully describes What happened, roles of self and personnel , pays attention to detail	Adequate Description of the experience and role of self and others	Minimal description
<i>Feelings during the experience</i>	Fully describes and elaborate on the physical and mental state. Thoughts and feelings clearly stated.	Adequate examination of feelings and thoughts. Maybe lacking in depth	Lacks self-examination of feelings , blames others
<i>The evaluation</i>	Fully describes what was good and bad about the experience from all angles	Adequate but may have left out some vital aspects or lacked depth. may focus too much on negative experiences	Minimal discussion on this aspect and may have been one –sided in perspective
<i>The analysis</i>	A broader perspective on the experience, displays a clear analysis of the experience and how it has contributed to personal , professional and knowledge	Adequate but may have left out some vital aspects or lacked depth	A narrow perspective is given and shows very little motivation to have learnt from the experience
<i>The conclusions</i>	Clearly states and reflects on what could have been done to prevent the situation and what can be done to achieve improved readiness. Able to describe various strategies to improve performance.	Adequate but may have left out some vital aspects or lacked depth	A narrow perspective is given and shows very little motivation to a changed perspective towards the experience and learning.
<i>The action plan</i>	Clearly displays a changed perspective on the situation and offers future action plans and readiness should same event occur.	Adequate descriptions of future preparedness for the event should it recur.	Offers minimal or no changed perspective on the situation

Appendix 5b: Guide to writing your reflective journal using Gibbs' (1988) Cycle of Reflection

Instructions

This guide is intended to help you write a reflective journal about a given clinical incident or experience you have encountered during your clinical placement.

The incident or experience can be;

- A specific physiological patient problem, such as difficulty in breathing, posts operative bleeding, cardiac arrest.
- A situation involving a patient's family.
- Your role in interdisciplinary problem solving.
- An ethical issue you encountered in practice.

Use the guide to help you tell the story of the situation. The guide provides you with a way of thinking about care that supports the development of clinical reflection. Write down your experience following Gibbs' cycle as explained hereunder. Submit your journal after two weeks of clinical placement. Written feedback will be given to you about your first journal. Write your second reflective journal after two weeks of your second semester clinical placement.

NB: Names of patients and staff must not be mentioned in the journals to protect their identity.

Stage 1: Description of the event

During this stage, you must describe in detail the event being reflected on. This includes e.g. where you were; who else was there; why were you there; what were you doing; what were other people doing; what was the context of the event; what happened; what was your part in this; what parts did the other people play; what was the result. No judgements must be done at this stage, only a simple description (Bulman 2008: 226). You are encouraged therefore, to tell your own story in your own voice.

Stage 2: Feelings

At this stage, you must try to recall and explore the things that were going on inside your mind, i.e. why does this event stick in your mind? The following must be included; how you were feeling when the event started; what you were thinking about at the time; how did it make you feel; how did other people make you feel; how did you feel about the outcome of the event; what you think about it now.

Stage 3: Evaluation

You try to evaluate or make a judgement about what has happened. Consider what was good about the experience and what was bad about the experience or what didn't go so well.

Stage 4: Analysis

At this stage, you must break the event down into its component parts so they can be explored separately. You may need to ask more detailed questions about the answers to the last stage. These must be included; what went well; what did you do well; what did others do well; what went wrong or did not turn out how it should have done; in what way did you or others contribute to this. Similarities and/or differences of your feelings compared to others can be described (Bulman 2008: 226).

Stage 5: Conclusion

At this stage the issue is explored from different angles. In addition you must have a lot of information to base your judgement on. It is here that you are likely to develop insight into your own and other people's behaviour in terms of how they contributed to the outcome of the event. The emphasis is on learning from an experience. During this stage you should ask yourself what you could have done differently. You can make general or specific conclusions regarding the event (Bulman 2008: 226) and it indicates insight and maturity of you.

Stage 6: Action Plan

During this stage you should think forward. Faced with same event again what would you plan and do differently or would you be likely to do the same? This becomes very personal as you decide on future encounters and own actions regarding same event/ experience (Bulman 2008: 226).

INSTRUCTIONS TO PARTICIPANTS

1. Do not write your name or student number on this questionnaire.
2. Please indicate the appropriate answer with an 'X'.

1. Age in years

20≥25	
25≤30	
30≤35	

2. Level of training

First year	
Second year	
Third year	
Fourth year	

4. In which unit were your two last clinical placements?

Medical	
Surgical	
Midwifery	
Psychiatry	

5. How would you rate your command of English?

Excellent	Very Good	Good	Satisfactory	Poor
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Appendix 5d: Perceptions questionnaire

<u>Instruction to the participant:</u>					
Please complete the following questionnaire by placing an X in the relevant column according to the level you agree or disagree. Please note that you will not be identified as your name does not appear on this questionnaire.					
SECTION A- Professional Development					
<u>CRITERIA</u>	<u>Strongly agree</u>	<u>Agree</u>	<u>Uncertain</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
As a result of writing in my reflective journal...					
I am able to correlate theory with practice					
My problem solving skills have improved					
I am able to redefine experiences and problems					
I am able to make proactive decisions and take on the spot corrective actions					
I am able to use past experiences to prevent future occurrences					
SECTION B- Personal Development					
<u>CRITERIA</u>	<u>Strongly agree</u>	<u>Agree</u>	<u>Uncertain</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
<u>Writing in my reflective journal has...</u>					
empowered me towards examining my own attitudes and perspectives to a given experience					
made me aware of my strengths and weaknesses					
assisted me in developing coping skills towards clinical experiences					
made me conscious of my own feelings and emotions in order to deal with myself and others					

given me a voice to express myself					
improved my confidence					
enhanced my writing and recording skills					
SECTION C-Clinical learning and Practice					
<u>CRITERIA</u> <u>Writing the reflective journal ...</u>	<u>Strongly agree</u>	<u>Agree</u>	<u>Uncertain</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
Enabled me to understand and promote my understanding of learning outcomes					
Increased my active involvement and ownership of my own learning					
Increased my ability in reflection and thinking					
Stimulated me towards searching for more knowledge in order to be ready for future critical experiences/ events					
Helped improve my observation skills					
SECTION D- Barriers to effective journaling					
<u>CRITERIA</u> <u>Please specify the extent to which you agree or disagree with the following statements</u>	<u>Strongly agree</u>	<u>Agree</u>	<u>Uncertain</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
My command of language limited my writing ability					
Writing the reflective journal took too much time					
The benefits of journaling are not clear to me					
I feel uncomfortable writing my personal feelings in the reflective journal					
I may be victimized when I express my real feelings					

I am not confident in my abilities to write a reflective journal					
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Appendix 6: Letter from the statistician

Gill Hendry B.Sc. (Hons), M.Sc. (Wits)

Mathematical and Statistical Services

Cell: 083 300 9896

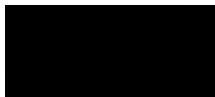
email: hendryfam@telkomsa.net

22 June 2012

To whom it may concern

Please be advised that Hazel T Mahlanze (student number 21242583) who is presently studying for a Master of Technology: Nursing has consulted me regarding the sampling strategy she will use for her study. I have also advised her on the development of the questionnaire.

Yours sincerely

A solid black rectangular box used to redact the signature of Gill Hendry.

Gill Hendry (Mrs)

Appendix 7: Data analysed

7.1 Reflective Journal 1

Description 1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid non-reflective	4	10.0	10.0	10.0
reflective	26	65.0	65.0	75.0
critically reflective	10	25.0	25.0	100.0
Total	40	100.0	100.0	

Feelings 1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid non-reflective	9	22.5	22.5	22.5
reflective	22	55.0	55.0	77.5
critically reflective	9	22.5	22.5	100.0
Total	40	100.0	100.0	

Evaluation 1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid non-reflective	20	50.0	50.0	50.0
reflective	20	50.0	50.0	100.0
Total	40	100.0	100.0	

Analysis 1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid non-reflective	24	60.0	60.0	60.0
reflective	16	40.0	40.0	100.0
Total	40	100.0	100.0	

Conclusions 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non-reflective	31	77.5	77.5	77.5
	reflective	9	22.5	22.5	100.0
	Total	40	100.0	100.0	

Action plan 1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non-reflective	36	90.0	90.0	90.0
	reflective	4	10.0	10.0	100.0
	Total	40	100.0	100.0	

Test Statistics

	Description 1	Feelings 1	Evaluation 1	Analysis 1	Conclusions 1	Action plan 1
Chi-Square	19.400 ^a	8.450 ^a	20.000 ^a	22.400 ^a	38.150 ^a	58.400 ^a
df	2	2	2	2	2	2
Asymp. Sig.	.000	.015	.000	.000	.000	.000

0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.3

	Description 1				Feelings 1			
	Category	Observed N	Expected N	Residual	Category	Observed N	Expected N	Residual
1	non-reflective	4	13.3	-9.3	non-reflective	9	13.3	-4.3
2	reflective	26	13.3	12.7	reflective	22	13.3	8.7
3	critically reflective	10	13.3	-3.3	critically reflective	9	13.3	-4.3
Total		40				40		

	Evaluation 1				Analysis 1			
	Category	Observed N	Expected N	Residual	Category	Observed N	Expected N	Residual
1	non-reflective	20	13.3	6.7	non-reflective	24	13.3	10.7
2	reflective	20	13.3	6.7	reflective	16	13.3	2.7
3		0	13.3	-13.3		0	13.3	-13.3
Total		40				40		

	Conclusions 1				Action plan 1			
	Category	Observed N	Expected N	Residual	Category	Observed N	Expected N	Residual
1	non-reflective	31	13.3	17.7	non-reflective	36	13.3	22.7
2	reflective	9	13.3	-4.3	reflective	4	13.3	-9.3
3		0	13.3	-13.3		0	13.3	-13.3
Total		40				40		

Total 1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20	2	5.0	5.0	5.0
27	5	12.5	12.5	17.5
33	8	20.0	20.0	37.5
40	7	17.5	17.5	55.0
47	3	7.5	7.5	62.5
53	10	25.0	25.0	87.5
60	4	10.0	10.0	97.5
67	1	2.5	2.5	100.0
Total	40	100.0	100.0	

Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Total 1	40	20	67	42.43	12.370
Valid N (listwise)	40				

7.2 Reflective Journal 2

Description 2

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid non-reflective	1	2.5	2.5	2.5
reflective	22	55.0	55.0	57.5
critically reflective	17	42.5	42.5	100.0
Total	40	100.0	100.0	

Feelings 2

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid non-reflective	1	2.5	2.5	2.5
reflective	17	42.5	42.5	45.0
critically reflective	22	55.0	55.0	100.0
Total	40	100.0	100.0	

Evaluation 2

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid non-reflective	2	5.0	5.0	5.0
reflective	38	95.0	95.0	100.0
Total	40	100.0	100.0	

Analysis 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non-reflective	5	12.5	12.5	12.5
	reflective	34	85.0	85.0	97.5
	critically reflective	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

Conclusions 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non-reflective	16	40.0	40.0	40.0
	reflective	23	57.5	57.5	97.5
	critically reflective	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

Action plan 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	non-reflective	21	52.5	52.5	52.5
	reflective	19	47.5	47.5	100.0
	Total	40	100.0	100.0	

Test Statistics

	Description 2	Feelings 2	Evaluation 2	Analysis 2	Conclusions 2	Action plan 2
Chi-Square	18.050 ^a	18.050 ^a	68.600 ^a	48.650 ^a	18.950 ^a	20.150 ^a
df	2	2	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000	.000	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 13.3.

	Description 2				Feelings 2			
	Category	Observed N	Expected N	Residual	Category	Observed N	Expected N	Residual
1	non-reflective	1	13.3	-12.3	non-reflective	1	13.3	-12.3
2	reflective	22	13.3	8.7	reflective	17	13.3	3.7
3	critically reflective	17	13.3	3.7	critically reflective	22	13.3	8.7
Total		40				40		

	Evaluation 2				Analysis 2			
	Category	Observed N	Expected N	Residual	Category	Observed N	Expected N	Residual
1	non-reflective	2	13.3	-11.3	non-reflective	5	13.3	-8.3
2	reflective	38	13.3	24.7	reflective	34	13.3	20.7
3		0	13.3	-13.3	critically reflective	1	13.3	-12.3
Total		40				40		

	Conclusions 2				Action plan 2			
	Category	Observed N	Expected N	Residual	Category	Observed N	Expected N	Residual
1	non-reflective	16	13.3	2.7	non-reflective	21	13.3	7.7
2	reflective	23	13.3	9.7	reflective	19	13.3	5.7
3	critically reflective	1	13.3	-12.3		0	13.3	-13.3
Total		40				40		

Total 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	33	2	5.0	5.0	5.0
	40	2	5.0	5.0	10.0
	47	1	2.5	2.5	12.5
	53	9	22.5	22.5	35.0
	60	13	32.5	32.5	67.5
	63	1	2.5	2.5	70.0
	67	4	10.0	10.0	80.0
	73	7	17.5	17.5	97.5
	80	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Total 2	40	33	80	59.30	10.903
Valid N (listwise)	40				

Test statistics

	Total 2 - Total 1
Z	-5.154 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

Ranks

	N	Mean Rank	Sum of Ranks
Total 2 - Total 1 Negative Ranks	1 ^a	6.00	6.00
Positive Ranks	35 ^b	18.86	660.00
Ties	4 ^c		
Total	40		

a. Total 2 < Total 1

b. Total 2 > Total 1

Test statistics

	Total 2 - Total 1
Z	-5.154 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

c. Total 2 = Total 1

7.3 Analysis of perceptions questionnaire

Section A – Professional development

	N	Mean	Std. Deviation
I am able to correlate theory with practice	40	1.93	.829
My problem solving skills have improved	40	2.18	.712
I am able to redefine experiences and problems	40	2.15	.834
I am able to make proactive decisions and take on the spot corrective actions	40	2.38	.774
I am able to use past experiences to prevent future occurrences	40	1.53	.640

Test statistics

	threes - I am able to correlate theory with practice	My problem solving skills have improved - threes	threes - I am able to redefine experiences and problems	I am able to make proactive decisions and take on the spot corrective actions - threes	threes - I am able to use past experiences to prevent future occurrences
Z	-4.883 ^a	-4.770 ^b	-4.394 ^a	-3.979 ^b	-5.488 ^a
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000

a. Based on negative ranks.

b. Based on positive ranks.

c. Wilcoxon Signed Ranks Test

Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Professional development	40	1.00	3.00	2.0300	.53118
Valid N (listwise)	40				

	threes - Professional development
Z	-5.315 ^a
Asymp. Sig. (2-tailed)	.000

Ranks

		N	Mean Rank	Sum of Ranks
threes - Professional development	Negative Ranks	0 ^p	.00	.00
	Positive Ranks	37 ^q	19.00	703.00
	Ties	3 ^r		
	Total	40		

Section B – Personal development

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
empowered me towards examining my own attitudes and perspectives to a given experience	40	2.08	.694	.110
made me aware of my strengths and weaknesses	40	1.83	.675	.107
assisted me in developing coping skills towards clinical experiences	40	2.00	.847	.134
made me conscious of my own feelings and emotions in order to deal with myself and others	40	1.88	.686	.109
given me a voice to express myself	40	1.98	.832	.131
improved my confidence	40	1.93	.764	.121
enhanced my writing and recording skills	40	1.90	.810	.128

Test statistics

	threes - empowered me towards examining my own attitudes and perspectives to a given experience	made me aware of my strengths and weaknesses - threes	threes - assisted me in developing coping skills towards clinical experiences	made me conscious of my own feelings and emotions in order to deal with myself and others - threes	threes - given me a voice to express myself	threes - improved my confidence	threes - enhanced my writing and recording skills
Z	-4.992 ^a	-5.273 ^b	-4.664 ^a	-5.205 ^b	-4.748 ^a	-5.048 ^a	-4.964 ^a
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000

a. Based on negative ranks.

b. Based on positive ranks.

c. Wilcoxon Signed Ranks Test

Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Personal_Development	40	1.29	3.00	1.9393	.47643
Valid N (listwise)	40				

	threes - Personal_Development
Z	-5.454 ^a
Asymp. Sig. (2-tailed)	.000

Ranks

		N	Mean Rank	Sum of Ranks
threes -	Negative Ranks	0 ^v	.00	.00
Personal_Development	Positive Ranks	39 ^w	20.00	780.00
	Ties	1 ^x		
	Total	40		

Section C – Clinical learning and practice

One-sample statistics

	N	Mean	Std. Deviation	Std. Error Mean
Enabled me to understand and promote my understanding of learning outcomes	40	1.93	.730	.115
Increased my active involvement and ownership of my own learning	40	2.18	.903	.143
Increased my ability in reflection and thinking	40	2.03	.832	.131
Stimulated me towards searching for more knowledge in order to be ready for future critical experiences/ events	40	1.93	.797	.126
Helped improve my observation skills	40	1.63	.667	.106

Test statistics

	threes - Enabled me to understand and promote my understanding of learning outcomes	Increased my active involvement and ownership of my own learning - threes	threes - Increased my ability in reflection and thinking	Stimulated me towards searching for more knowledge in order to be ready for future critical experiences/ events - threes	threes - Helped improve my observation skills
Z	-5.138 ^a	-4.117 ^b	-4.710 ^a	-4.962 ^b	-5.397 ^a
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000

a. Based on negative ranks.

b. Based on positive ranks.

c. Wilcoxon Signed Ranks Test

Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Clinical_learning_and_practice	40	1.00	3.80	1.9350	.58422
Valid N (listwise)	40				

	threes - Clinical_learning _and_practice
Z	-5.305 ^a
Asymp. Sig. (2-tailed)	.000

Section D – Barriers to effective journaling

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
My command of language limited my writing ability	40	2.90	1.128	.178
Writing the reflective journal took too much time	40	2.95	1.358	.215
The benefits of journaling are not clear to me	40	3.18	1.551	.245
I feel uncomfortable writing my personal feelings in the reflective journal	40	3.25	1.127	.178
I may be victimized when I express my real feelings	40	3.33	1.071	.169
I am not confident in my abilities to write a reflective journal	40	3.10	1.194	.189

Test statistics

	threes - My command of language limited my writing ability	Writing the reflective journal took too much time - threes	threes - The benefits of journaling are not clear to me	I feel uncomfortable writing my personal feelings in the reflective journal - threes	threes - I may be victimized when I express my real feelings	threes - I am not confident in my abilities to write a reflective journal
Z	-.491 ^a	-.205 ^b	-.635 ^b	-1.394 ^a	-1.756 ^b	-.534 ^b
Asymp. Sig. (2-tailed)	.623	.838	.526	.163	.079	.593

a. Based on negative ranks.

b. Based on positive ranks.

c. Wilcoxon Signed Ranks Test

My command of language limited my writing ability

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	2	5.0	5.0	5.0
agree	17	42.5	42.5	47.5
uncertain	8	20.0	20.0	67.5
disagree	9	22.5	22.5	90.0
strongly disagree	4	10.0	10.0	100.0
Total	40	100.0	100.0	

Writing the reflective journal took too much time

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	6	15.0	15.0	15.0
agree	13	32.5	32.5	47.5
uncertain	4	10.0	10.0	57.5
disagree	11	27.5	27.5	85.0
strongly disagree	6	15.0	15.0	100.0
Total	40	100.0	100.0	

The benefits of journaling are not clear to me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	9	22.5	22.5	22.5
	agree	6	15.0	15.0	37.5
	uncertain	5	12.5	12.5	50.0
	disagree	9	22.5	22.5	72.5
	strongly disagree	11	27.5	27.5	100.0
	Total	40	100.0	100.0	

I feel uncomfortable writing my personal feelings in the reflective journal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	2	5.0	5.0	5.0
	agree	10	25.0	25.0	30.0
	uncertain	9	22.5	22.5	52.5
	disagree	14	35.0	35.0	87.5
	strongly disagree	5	12.5	12.5	100.0
	Total	40	100.0	100.0	

I may be victimized when I express my real feelings

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	3	7.5	7.5	7.5
	agree	5	12.5	12.5	20.0
	uncertain	12	30.0	30.0	50.0
	disagree	16	40.0	40.0	90.0
	strongly disagree	4	10.0	10.0	100.0
	Total	40	100.0	100.0	

Test Statistics

	My command of language limited my writing ability	Writing the reflective journal took too much time	The benefits of journaling are not clear to me	I feel uncomfortable writing my personal feelings in the reflective journal	I may be victimized when I express my real feelings	I am not confident in my abilities to write a reflective journal
Chi-Square	16.750 ^a	7.250 ^a	3.000 ^a	10.750 ^a	16.250 ^a	15.500 ^a
df	4	4	4	4	4	4
Asymp. Sig.	.002	.123	.558	.030	.003	.004

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.0.

Frequencies

	My command of language limited my writing ability				Writing the reflective journal took too much time			
	Category	Observed N	Expected N	Residual	Category	Observed N	Expected N	Residual
1	strongly agree	2	8.0	-6.0	strongly agree	6	8.0	-2.0
2	agree	17	8.0	9.0	agree	13	8.0	5.0
3	uncertain	8	8.0	.0	uncertain	4	8.0	-4.0
4	disagree	9	8.0	1.0	disagree	11	8.0	3.0
5	strongly disagree	4	8.0	-4.0	strongly disagree	6	8.0	-2.0
Total		40				40		

Frequencies

	The benefits of journaling are not clear to me				I feel uncomfortable writing my personal feelings in the reflective journal			
	Category	Observed N	Expected N	Residual	Category	Observed N	Expected N	Residual
1	strongly agree	9	8.0	1.0	strongly agree	2	8.0	-6.0
2	agree	6	8.0	-2.0	agree	10	8.0	2.0
3	uncertain	5	8.0	-3.0	uncertain	9	8.0	1.0
4	disagree	9	8.0	1.0	disagree	14	8.0	6.0
5	strongly disagree	11	8.0	3.0	strongly disagree	5	8.0	-3.0
Total		40				40		

Frequencies

	I may be victimized when I express my real feelings				I am not confident in my abilities to write a reflective journal			
	Category	Observed N	Expected N	Residual	Category	Observed N	Expected N	Residual
1	strongly agree	3	8.0	-5.0	strongly agree	3	8.0	-5.0
2	agree	5	8.0	-3.0	agree	13	8.0	5.0
3	uncertain	12	8.0	4.0	uncertain	5	8.0	-3.0
4	disagree	16	8.0	8.0	disagree	15	8.0	7.0
5	strongly disagree	4	8.0	-4.0	strongly disagree	4	8.0	-4.0
Total		40				40		

Correlations

		I am able to correlate theory with practice	My problem solving skills have improved	I am able to redefine experiences and problems	I am able to make proactive decisions and take on the spot corrective actions	I am able to use past experiences to prevent future occurrences	Conclusions 2
Conclusions 2	Pearson Correlation	.394	.242	.128	.100	.065	1
	Sig. (2-tailed)	.012	.133	.431	.541	.691	
	N	40	40	40	40	40	40

** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).

		Description 2	Feelings 2	Evaluation 2	Analysis 2	Conclusions 2	Action plan 2	Total 2
made me conscious of my own feelings and emotions in order to deal with myself and others	Pearson Correlation	.342	.244	.296	.049	.285	.175	.331
	Sig. (2-tailed)	.031	.129	.064	.763	.074	.279	.037
	N	40	40	40	40	40	40	40

		Description 2	Feelings 2	Evaluation 2	Analysis 2	Conclusions 2	Action plan 2	Total 2
Increased my active involvement and ownership of my own learning	Pearson Correlation	.115	.068	.045	.052	.348	.150	.185
	Sig. (2-tailed)	.481	.677	.783	.748	.028	.355	.254
	N	40	40	40	40	40	40	40

Correlations

		Total 2	Total 1
Total 2	Pearson Correlation	1	.506**
	Sig. (2-tailed)		.001
	N	40	40
Total 1	Pearson Correlation	.506**	1
	Sig. (2-tailed)	.001	
	N	40	40

**. Correlation is significant at the 0.01 level (2-tailed).