FACTORS INFLUENCING THE THROUGHPUT OF MASTER DEGREE NURSING STUDENTS AT A UNIVERSITY IN SOUTH AFRICA

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Thesis presented in fulfilment of the requirements for the degree of Master of Nursing in the Faculty of Medicine and Health Science at Stellenbosch University

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DECLARATION

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

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ABSTRACT

Scientific evidence based practices are essential to efficient health service delivery. Continuous education to Master's Degree level is the springboard to future research projects, but the throughput of Master's Degree students is however a concern. The poor attainment rate of Master's Degree in nursing delays improvement in evidence based nursing practices and impedes the availability of academia.

This study aimed to identify factors that influence the throughput of Master's Degree nursing students in a distance education programme at a university in South Africa. The objective was to identify influencing factors related to

- the individual
- the Higher Education Institution
- the employer

A non-experimental, descriptive research design was applied with a quantitative approach. The target population was all the enrolled Master's Degree Nursing students between 2004 and 2010 at the university under study.

A structured electronic questionnaire was implemented for data collection. The questionnaire was presented to (n = 201) with a response rate of (n = 46/23%).

Ethical approval was obtained from Stellenbosch University to conduct this study. Permission was obtained from the university under study to utilize the contact details on the data base of the target population.

Reliability and validity was assured by two pilot studies to test the instrument and the use of experts in nursing research, methodology and statistics. The electronic instrument allowed automatic data capturing. The collected data was archived in the accessed controlled electronic data surveys pool of Stellenbosch University.

Data analysis was done with the support of a statistician and was expressed as frequencies and in tables. Descriptive statistics and tests for statistical associations were also performed.

The individual related outcomes showed that respondents had a mean age of 42 years and (n = 22/48%) had 21 to 40 years experience as a professional nurse. The majority of respondents were female (n = 45/98%) and married (n = 30/54%). Results indicated that the management of family and studies was not easy (n = 30/65%), but respondents experienced their family as an effective support (n = 37/80%) during their studies. Respondents who left

their studies indicated the main reason to be a lack of a supporting network (n = 7/19%). Impeding factor results from the Higher Education Institution showed that WebCT was not an effective communication instrument (n = 19/42%) and (n = 22/48%) respondents had difficulty to access their supervisors. Enhancing factors related to study outcomes that were easy to comprehend (n = 39/85%) and efficiency of face-to-face workshops (n = 21/88%) provided support. All the respondents were employed at the time of study (n = 46/100%). Results showed that service demands were the reason why (n = 4/11%) non-completing respondents left their studies. Employers required from (n = 22/48%) respondents to do overtime during their studies. Employer demands influenced the studies of (n = 16/65%) respondents.

In conclusion, this study showed specific factors that influence the throughput of Master's Degree in Nursing students at the university under study. Recommendations were made to influence policy makers and stakeholders to reconsider their present practices regarding continuous education and support to their clients.

OPSOMMING

Wetenskaplikgefundeerde uitkomsgebaseerde praktyke is noodsaakik vir doeltreffende gesondheidsdienslewering. Voortgesette onderrig tot die vlak van ’n Magistergraad is die vertrekpunt vir toekomstige navorsingsprojekte, maar die voltooiing van Magistergrade is egter ‘n bekommernis. Die gebrekkige verwerwing van Meestersgrade in Verpleegkunde het nie net ’n sleureffek op die verbetering van uitkomsgebaseerde verpleegpraktyke nie, dit strem ook die beskikbaarheid van akademici.

Die studie het ten doel gehad om faktore te identifiseer wat die voltooiing van die Magistergraad in Verpleegkunde vir studente van die afstandsonderrigprogram, aan ‘n universiteit in Suid-Afrika, beïnvloed. Die doelwit behels die identifisering van faktore wat te make het met

- die individu
- die Hoëronderwys Instansie
- die werkgewer

’n Nie–eksperimentele, beskrywende navorsingsontwerp met ’n kwantitatiewe benadering is gevolg. Die teikengroep is al die ingeskrewe Magisterstudente in Verpleegkunde tussen 2004 en 2010 aan die teiken-universiteit.

’n Gestruktureerde elektroniese-vraelys is gebruik vir dataversameling. Die vraelys is aangebied aan (n = 201) kandidate en ‘n (n = 46/23%) voltooiingrespons is verkry.

Etiese goedkeuring om die studie te doen is van die Universiteit Stellenbosch verkry. Toestemming is ook van die teiken-universiteit verkry om die kontakbesonderhede van die teikenbevolking vanuit die databasis te benut.

Betroubaarheid en geldigheid is deur twee loodsstudies verseker en vakkundiges in verpleegnavorsing, metodologie en statistiek is betrek by die studie. Die elektroniese instrument het voorsiening gemaak vir outomatiese datavaslegging met voltooiing. Die versamelde data is in die toegangsbeheerde elektroniese-navorsingsdatabank van die Universiteit Stellenbosch geberg.

Die data is ontleed met die hulp van ‘n statistikus en is as frekwensies en tabelle weergegee. Beskrywende statistiek en toetse vir statistiese verhoudings is ook uitgevoer.

Die bevindings rakende die individu dui daarop die gemiddelde ouderdom van deelnemers 42 jaar was en dat (n = 22/45%) tussen 21 en 40 jaar ervaring as professionele

verpleegkundiges het. Die meeste van die deelnemers was vroulik (n = 45/98%) en getroud (n = 30/54%). Bevindings toon dat die hantering van familie en studies nie maklik was nie (n = 30/65%), maar deelnemers het egter hul familie as goeie ondersteuning (n = 37/80%) gedurende hul studies beleef. Deelnemers wat hul studies gestaak het, het as die hoofrede 'n gebrek aan 'n ondersteuningsnetwerk aangevoer (n = 7/19%). Bevindings wat verwys na stremmende faktore van die Hoëronderwysinstelling hou verband met WebCT wat ondoeltreffend was as kommunikasie-instrument (n = 19/42%) en studieleiers wat moeilik deur deelnemers bereik kon word (n = 22/48%). Versterkende faktore was verwant aan studiedoelwitte wat maklik verstaanbaar was (n = 39/85%) en die ondersteuningsukses van aangesig tot aangesig werkswinkels (n = 21/88%). Al die deelnemers was in diens tydens hul studie (n = 46/100%). Bevindings toon dat diensverwagtinge die rede was waarom (n = 4/11%) deelnemers hul studies gestaak het. Werkgewers het van (n = 22/48%) deelnemers verwag om oortyd te werk tydens hul studies terwyl (n = 16/65%) deelnemers aangedui het dat hul studies beïnvloed was deur hul werkgewer se eise.

Ten slotte, hierdie studie het getoon dat spesifieke faktore die voltooiing van Magisterstudies in Verpleegkunde aan die teiken-universiteit beïnvloed. Aanbevelings is gemaak om beleidmakers en belangegroepe te beïnvloed om hul bestaande praktyke rakende voortgesette onderrig en ondersteuning aan hul kliënte te heroorweeg.

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LIST OF ABBREVIATIONS

CE	Continuous Education
CHE	Council for Higher Education
DE	Distance Education
DVD	Digital Video Disk
EBP	Evidence Base Practice
e.g.	for example
i.e.	in this case
WHO	World Health Organisation

CHAPTER 1: SCIENTIFIC FOUNDATION OF THE STUDY

1.1 INTRODUCTION

Throughput of Master Degree students is a national and international challenge at Higher Education Institutions (Subotzky, 2003:367; Nicholls, 2007:770). Health services need highly skilled competent workers who make a service delivery difference because of their level of education. Master Degree in nursing studies is the option to address advanced service and professional developmental needs. Master Degree nursing students however tend to be older employed part-time students (Drennan and Hyde, 2008:486 and 492).

Academic performance of mature Master Degree students is consequently challenged by personal factors such as family responsibilities (Walters and Koetsier, 2006:98), programme requirement challenges such as research skills (Lee, Tiwari, Hui Choi, Yuen and Wong, 2005:207) and employment challenges such as lack of employer support (Drennan and Hyde, 2008:488). The value of a Master's Degree in Nursing is still debated. On the one side health care services expect graduates to pursue service delivery roles, whereas nurses are trained to value their caring role. At present employers, policymakers and education institutions dictate the outcome of this argument (Gerrish, McManus and Ashworth, 2003:110). Drennan and Hyde (2008:492) therefore appeal for collaboration among stakeholders in this discourse to revisit the purpose of the degree. The outcomes should be balanced and not alienate the graduate from the caring nature of the nursing profession (Gerrish, McManus and Ashworth, 2003:110).

1.2 RATIONALE

The non-completion of research degrees has extensive implications for students, supervisors and academic institutions. Apart from no attainment by the student the university as an academic institution is at risk of losing financial support and prestige, while supervisor motivation for future funds is also compromised (Jiranek, 2010:2).

At the university under study the Master's Degree in Nursing is presented as a distance education programme. Distance education permits national and international part-time students access to continuous education at this institution. Information technology development in recent years has improved on communication options and time efficiency communication between distance education students and supervisors by utilizing e-mail and WebCT. A blended strategy to increase student support was introduced as face-to-face

workshops and telematic broadcasts. But despite all interventions the Nursing Division of the university under study reflected unsatisfactory throughput results (table 1.1).

Table 1.1: Master Degree Nursing throughput between 2004 and 2008

Year	Enrolment	Graduates
2004	33	9
2005	14	7
2006	17	2
2007	16	1
2008	45	4

The outcome of this study showed that Master Degree Nursing students face person-related, education-related and employment-related challenges.

The study investigated person-related factors and the influence thereof on the studies of the respondents. Demographic information on age indicated that the respondents represented an older student with a mean age of 42 years. A study by Ofori and Charlton (2002:512) showed a positive correlation between age and academic performance. According to Newman-Ford, Lloyd and Thomas (2009:21) the age for best academic achievement is described as the age between 36 and 40 years. Older students therefore pose an academic performance challenge to Higher Education Institutions.

Nursing research is the cornerstone to evidence based practice and knowledge in the profession (Burns and Grove, 2007:xi). The late entry of respondents into nursing research practice puts expansion and new scientific evidence to best care practices under pressure because of time limitations for novice researchers to become experienced researchers. The late entry to advanced level studies is also a potential threat to the availability of future academics (Koen, 2007:49).

Mature students are also confronted with diverse role fulfilment requirements. The nursing profession is still characterized as a female profession. Therefore, when female professionals with families take up continuous education they have to exercise sound time and role management to balance family and study responsibilities (Williams and Decker, 2009:82). The employee role requirements add to their stress and restrictions on study time.

In this study all respondents were employed and the majority (n = 74%) worked a 36 to 40 hour work week. Role responsibilities were indicated as a reason to leave the programme. Sixteen percent (n = 16%) respondents indicated family responsibilities and (n = 11%) employer responsibilities as decisive reasons for termination of studies.

The motivating reason why respondents enrol for a Master's Degree is significant. Internal motivation is characteristic of students enrolled for specialized programmes (Adcroft, 2010:11 and 17). In this study all respondents were highly motivated on commencement of their studies. The majority of respondents (n = 54%) indicated career advancement as the primary reason for studies. According to Norwood (2009:1) the needs driven theory of Maslow supports the adult student's desire to achieve and to be empowered to access future post fulfilment. Motivation alone is however no guarantee for success in Master's Degree studies. Master Degree students have to demonstrate specialist knowledge to partake in research and they have to demonstrate advanced communication skills to prepare research products (South African Qualifications Authority, 2012:7). Although basic research skills are imperative to continuous education at Master Degree level, the assumption of the establishment thereof at undergraduate level is an error (Botes, 2001:21; Lubbe, Worrall and Klopper, 2005:244).

According to Tarrant, Dodgson and Law (2008:459 and 466) preparing scientific written products as a required study outcome is a challenge to nurses returning to academia and particularly to English second language students. Respondents (n = 37%) indicated that they struggled to manage the skill of scientific writing. Respondents (33%) who struggled to overcome their scientific writing skills limitations considered leaving the programme. The required communication language in this study was English. Respondents (78%) indicated their English proficiency as a complementing factor to their writing skills, while English proficiency was a barrier to (22%) respondents.

Access to resources plays a significant role in continuous education studies. A study by Devlin, James and Grigg (2008:115-119) showed that employed students are often at risk of having financial difficulties. Employment assures income in order to meet living costs. Students therefore sacrificed study time for paid employment. Part-time students indicated that they spent 30 to 40 hours per week in paid employment to comply with their living needs leaving limited time for studies. Students acknowledged that their financial barriers had a negative effect on their studies. In this study results showed that sufficient financial support was available to (54%) respondents. Financial challenges did not have a negative influence on the studies of (70%) respondents, but financial difficulties were the reason for (8%) respondents leaving the programme.

This Master Degree is offered as an online distance education programme. To access online studies it is essential that students have access to a personal computer and reliable internet services. Students would gain the most from their studies if they are ready for online studies and have the necessary information technology skills (Cragg, Edwards, Yue, Xin and Hui,

2003:265). The majority of respondents had no access barriers to computers (80%) or internet services (78%). Respondents indicated that their word processing skills (89%) and internet search skills (76%) were sufficient for their study purposes. Respondents (83%) indicated that their studies were not negatively influenced by their computer skills. The number of respondents who indicated computer (20%) and internet (22%) access barriers and who indicated that they had insufficient word processing skills (11%) and internet search skills (24%) do however pose a threat to the throughput of the programme.

Throughput is also influenced by factors related to the Higher Education Institution and the programme. It is a country's responsibility to train health workers to meet the health needs of its citizens, but there is a global need to address the health workforce crisis (World Health Organization, 2008:v and vii). Countries are called upon to embark on long-term strategies to address "high level" nurse training. Health workers should therefore be able to access lifelong learning at a pace and style that address the service needs of their patients (World Health Organization, 2008:42 and 48). The World Health Organization (WHO) emphasized the benefits of satellite information and communication technology to eliminate time and distance barriers from study activities to enhance the training opportunities of these health workers (World Health Organization, 2008:54-55). Respondents in this study accessed an information and communication technology driven distance education for a Master's Degree in Nursing. Online courses require superior planning and construction to enhance a student's chances by satisfying his/her learning experience. To facilitate the student's learning experience Web-instructors tend to prepare highly structured study guides (Christianson, Tiene and Luft, 2002:217 and 225). Study results showed that (72%) respondents were satisfied with the comprehension of the study guide. Respondents were however challenged to obtain prescribed study material (32%) and (28%) indicated that the study guide provided insufficient information on assignments.

The availability and access to library facilities are of essential support to distance education students. Online searches can only be successful if the Higher Education Institution has the capacity to provide online data bases on hard copy references to lend and e-journal access. It is important that training opportunities are available to familiarize students with these services and how they can access and utilize electronic data bases (Martin, 2003:46-47). Study results from a study on the use of electronic resources support this study's findings. Literature described that although postgraduate students reflected a high usage of electronic resources, they lack information communication technology skills (Ozoemelem, 2009:6). Thirty three percent respondents were challenged in accessing academic resources of the library. The library staff's support service was sufficient for the needs of (71%) respondents,

but (29%) respondents disagreed. Inadequate library service is a powerful influencing factor to distance education students. These distance education students rely on Higher Education Institution's to permit them access to updated online reference material to support their studies.

Effective communication is indispensable between students, Higher Education Institution's and supervisors. In a review on building capacity by distance education, authors emphasized the importance of constant student support. They suggested that the loss of face-to-face interaction with supervisors should be replaced by intentional e-mail and telephonic feedback and supportive conversations. During dissertation writing students were motivated to spend their leave time with their supervisors to enhance the writing process. The authors acknowledged that distance education supervision is labour intensive and time consuming for supervisors. Online students have very specific learning needs that influence their studies and therefore require innovative actions from their supervisors, such as quality feedback on assignments (Alexander, Igumbor and Sanders, 2009:5-7). Students may be unfamiliar to web-based education and are therefore not keen to participate. Higher Education Institutions are therefore challenged to prepare user-friendly web-based distance education programmes to attract students (Yu and Yang, 2006:770 and 772). In this study (42%) respondents disagreed that WebCT was an effective communication tool. Communication with the supervisors was also a challenge. Respondents (48%) indicated that their supervisors were not easily accessible. The received feedback was however clear to (63%) and constructive to (74%) respondents. The influencing factor of the support and guiding role of a supervisor cannot be underestimated. Respondents (37%) acknowledged the necessity of their supervisor to be able to master scientific writing skills during their studies. It was noted that (44%) respondents indicated that communication from the supervisor did not help them to gain academic self-confidence. Respondents (42%) indicated that academic staff did not consider the learning needs of mature students.

A blended strategy in distance education enhances communication and support to online students. A study by López-Pérez, Pérez-López and Rodríguez-Ariza (2011:821-822 and 824) stated that blended education had a remarkably positive influence on online students. Improved pass marks were reported, students were more motivated on their subject choice and a decrease in withdrawal from studies was reported. Face-to-face sessions were reported to support online learning. Students experienced the face-to-face sessions as a time to be actively involved in their learning. According to Smyth, Houghton, Cooney and Casey (2012:466-467) blended education supports full time employees with the autonomy and flexibility that they need to manage their learning. Students applauded these principles of

adult learning. The face-to-face workshops were also highly valued as it allowed them peer networking, opportunities for clarifying their uncertainties and promoted learning consolidation. Online learning was enhanced when swift feedback was received on assignments. Students were also faced with challenges such as to experience that blended education was enveloping because there was no private space – Higher Education Institution and home became the same space. The time spent on studies was also experienced as a factor on their personal time. This study showed that (75%) respondents attended the scheduled workshops and workshop attendance was of value to (88%) of the attendees. Attendance of telematic broadcasts were a priority to only (46%) respondents, while (57%) agreed to attend as their time allowed. Telematic broadcasts had value to (57%) respondents.

The third domain of influencing factors on throughput relates to the employer. In health services managers and policy makers pay attention to quality nursing care. Quality care is closely related to evidence based nursing care practices (Foulkes, 2011:40-43). To achieve quality care on evidence based practices, health care professionals should direct or at least participate in evidence based care research to improve on health care education (Clark, 2005:610). Employers who are aware of evidence based practice (EBP) benefits know the cost efficiency and improved service delivery advantages thereof (Cleary-Holdforth, 2009:35). Research is of necessity to obtain the knowledge that support evidence based practice. A study by McKenna, Ashton and Keeney (2004:184-185) showed that (83%) of the participants working in primary health care had never been exposed to a research course.

One of the barriers to participating in evidence based practice was a lack of managerial support. According to Black and Bonner (2011:164 and 166) limited research is available on employer support to students. Their study showed that employer support discriminates between campus and distance education students. Study leave was granted to campus students, but distance education students were denied study leave. Employers were also reluctant to give relative easy manageable support such as clinical placement to be exposed to needed learning opportunities.

A strategy to address support to students is by establishing a supporting workplace culture. Both students and employers will benefit from the initiative in that less formal ways of support will then be needed. Education providers and employers should therefore work together to improve on student support strategies. Oehlkers and Gibson (2001:271) echoed that employer support to a full-time employee is indispensable. Sensitive supervisors that had the best interest of the student at heart were applauded, but likewise insensitivity was disclosed.

Financial support was always appreciated although it was not expected. The results in this study showed that employers granted (63%) respondents permission to study and assigned on duty hours for research to (24%) respondents. Respondents (37%) had to do their studies without the blessing of their employer, while (76%) respondents had to utilize own time for studies.

Results from this study showed that employers granted financial assistance to (17%) respondents. Although (54%) respondents indicated to have had sufficient funds, (46%) lacked sufficient funds. Financial barriers were the reason for (8%) respondents leaving the programme.

Although employers support Master Degree in Nursing studies of full-time employees, they lack empathy for the demands on the employee. In a study by Spencer (2006:49-51) participants in non-clinical positions indicated that they were expected to keep up with their workload even if they had a study day away from their point of service. All respondents in this study were employed and (74%) worked a 36 to 40 hour work week. Employers expected (48%) respondents to do overtime due to operational needs on which (65%) respondents indicated that their studies were influenced by employer demands. Employer demands were the reason for (11%) respondents terminating their studies.

Employers are familiar with the fact that better educated nurses enhance the health care they deliver (Scott, 2010:1). Despite taking cognisance of the benefit of better educated nurses, employers tend not to value the outcome of the education. In a study by Spencer (2006:50), participants responded to the value of their Master's Degree studies. They revealed a mix of successes on implementation of their acquired skills. Some expressed frustration and disillusion because they were not given the opportunity to apply their skills. Some colleagues questioned the value of a Master's Degree in Nursing. In this study (78%) respondents indicated that their employers do not validate a Master's Degree in Nursing by translating monetary value to the remuneration of a holder of such a qualification.

Professional nurses deliver an extensive spectrum of services in the health care domain. To ensure that patients receive the best and safest care it is non-negotiable that professional nurses should advance on lifelong education to meet the changing needs of patients. New skills and knowledge need to be researched and become evidence-based. To achieve this goal role players have to work together to plan and monitor the service needs and develop programmes to secure quality care (Institute of Medicine of the National Academies, 2010:1-5).

1.3 PROBLEM STATEMENT

In view of the above it is evident that the postgraduate nursing student is confronted with challenges when undertaking postgraduate studies. These challenges may influence throughput and attainment. It is therefore imperative that an investigation is done to identify factors that influence the studies of Master's Degree in Nursing students.

1.4 RESEARCH QUESTION

What are the factors of person, the Higher Education Institution and employment that influence throughput of students in a distance education Master's Degree in Nursing programme at a university in South Africa?

1.5 RESEARCHED GOAL

The goal of this study was to identify those factors that influenced throughput of distance education Master's Degree in Nursing students at a university in South Africa in order to come up with strategies to improve the throughput..

1.6 STUDY PURPOSE

The purpose of this study was to identify factors related to the person, the Higher Education Institution and employment that influence throughput of students in a distance education Master's Degree in Nursing programme at a university in South Africa.

1.7 OBJECTIVES

The objectives for this study were to identify factors influencing studies of distance education Master's Degree in Nursing students at a university in South Africa related to

- personal factors that have an influence on studies
- academic (Higher Education Institution and programme) factors that impede or promote studies
- employment factors that influenced participation in studies.

1.8 SIGNIFICANCE OF THE STUDY

It is the responsibility of the university under study to provide higher education study opportunities to qualifying postgraduate nursing students. Consequently, when throughput shows disappointing results, it is vital to investigate the reasons which cause these. To do so, the first level of investigation is to involve the students and obtain their input. The outcomes of this study were aimed at Higher Education Institutions, employers and policy makers to provide them with scientific evidence on the influence of present practices and

policies on throughput of their Master's Degree nursing students. These results would also be published in an accredited journal.

1.9 RESEARCH METHODOLOGY

In this chapter a brief description of the research methodology applied in this study is presented. The comprehensive discussion follows in chapter 3.

A non-experimental, quantitative, descriptive research design was applied to identify the factors influencing the throughput of distance education Master's Degree in Nursing students at a university in South Africa. A questionnaire, directed at the objectives of this study, was constructed and implemented. Section A of the questionnaire required the collection of demographic data from respondents. Section B collected data on factors related to the person, Higher Education and programme and employment that influence throughput of Master students. Open-ended questions allowed respondents' comments and nominal data such as age expressed in years. Two preliminary pilot studies were conducted. An initial hard copy study was done to test suitability of the instrument and feasibility of the study. Due to several international students a second pilot study was done with an electronic version to test the instrument. Specialists in the fields of nursing, education, research methodology and statistics assisted the researcher to ensure reliability and validity of the study.

The data was analysed with the support of a statistician, using computerized data analysis software, namely the STATISTICA Version 10, 2011 programme. The data was predominantly presented in a quantitative form. Data from open-ended questions which allowed comments were presented as narrative responses.

1.10 ETHICAL CONSIDERATIONS

Ethics is defined as "a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal, and social obligations to the study participants" (Polit and Beck, 2012:727). All research has to refrain from plagiarism and reporting should be truthful (Welman, Kruger en Mitchell, 2005:181). Furthermore, should research involve human participants it is vital to enforce the additional three ethical principles of respect for persons, beneficence and justice (LoBiondo-Wood and Haber, 2010:250). According to Welman, Kruger and Mitchell (2005:181) ethical considerations are applied in different stages during a research study. The first consideration is on recruitment of subjects followed by the time of participation of the subjects (data collection) and finally on releasing results.

This study involved human participation and therefore the additional ethical principles need further explanation.

1.10.1 Respect for persons/human dignity

Humans have to be treated with respect as an agent with the ability to direct his own actions. Autonomy refers to the ability of individual decision making on whether they wish to partake voluntarily and not to be judged or maltreated when they withdraw or wish to withhold information during a study. The right to autonomy encompasses not to be intimidated to participation (Polit and Beck, 2012:154). Invitation to participation in this study was open to all members of the study population. Acceptance or rejection of the invitation was voluntarily. By utilizing an electronic instrument all members in the study population received an unidentified instrument which they completed or rejected anonymously.

1.10.2 Beneficence

It is the duty of the researcher to limit harm (non-maleficence) during a study. Researchers should be sensitive to protect human participants against physical, emotional, social and financial harm or discomfort during studies. Participants should be protected from exploitation or being disadvantaged by their participation in a study (Polit and Beck, 2012:153). In this study the researcher provided an invitation to be contacted should the participants have challenges. To ensure that participants would be comfortable with their participation, the name and services of a counsellor at the Stellenbosch University was indicated on the accompanying information sheet of the invitation should they need assistance.

1.10.3 Justice

The principle of justice incorporates the right to fair treatment and privacy. Study samples should be scientifically selected according to a study protocol and not exploit vulnerable individuals to participate on a voluntarily basis. Fair treatment also includes researchers honouring their agreement with participants even on withdrawal of participation. Fair treatment includes respect for diversity among participants. Research with humans implies invasion of their privacy. It is therefore vital that invasion is limited to what is needed for research and that data is handled in a confidential manner (Polit and Beck, 2012:155). In this study all enrolled students between 2004 and 2010 were the target population. The information leaflet explained that there will be no gain to participation. Participation was voluntary and withdrawal or rejection to participation would be acceptable without adverse effects. The completed instruments were received anonymously and were automatically archived in the access controlled surveys pool of the Stellenbosch University.

1.11 PERMISSION TO CONDUCT THIS STUDY

Prior to commencement of this study, written permission was obtained from the Health Research Ethics Committee of the Stellenbosch University (Annexure A). Permission was granted to obtain contact details of the target population from the available and permitted database from the Nursing Division at the Stellenbosch University (Annexure A).

1.12 INFORMED PARTICIPANT AND IMPLIED CONSENT (ANNEXURE C)

The adherence to the ethical principles in this study was vital because the target population is enrolled and former enrolled Master Degree in Nursing students at the university under study. The student contact details are confidential information and were treated as such. This study implemented an electronic instrument and written consent was not appropriate. An information leaflet with explanation on implied consent was attached to the participation invitation (Annexure B and C) of the instrument. Implied consent was implemented which is described as “consent to participate in a study that a researcher assumes has been given based on participants’ actions, such as returning a completed questionnaire” (Polit and Beck, 2012:730).

The study participant is “an individual who participates and provides information in a study” (Polit and Beck, 2012:744). Informed consent implies that participants received sufficient information on the study such as the aim, the procedures that will follow and the type of data to be collected. Participants should be informed of potential risks, benefits and their rights during the study. The researcher had to emphasise their voluntarily participation and that all information would be treated in confidence. Participants should be able to make a sound decision on accepting or declining the invitation to participate (Polit and Beck, 2012:158). In this study participants received the electronic invitation and information leaflet explaining the aim of the study, their selection, their rights and benefits. Confidentiality was guaranteed regarding the response data. The researcher provided her contact details if they needed to clarify an item or needed counselling. On agreement to participate an anonymous electronic questionnaire could be accessed. In case of a declined invitation, the electronic database registered the response as a declined response. Participants were reassured that their responses would be kept in confidence. Access to the data would be limited to the researcher, the supervisor and the statistician.

The self reporting electronic questionnaire allowed anonymity to the received responses. According to LoBiondo-Wood and Haber (2010:277) questionnaires may pose a threat to informed consent as any person in a household can complete the instrument. Furthermore, respondents could change the order of answering the questions which may influence their

following responses. In this study the electronic instrument was sent to the personal provided e-mail address of participants. It was the researcher's understanding that the provided electronic contact address is the participants' preferred point of communication with the university under study. The researcher had limited control on the haphazard answering of questions. The instrument structure however allowed the next page on probing the "next" button, but certain questions were compulsory to avoid missing data on vital variables.

1.13 OPERATIONAL DEFINITIONS

1.13.1 Andragogy

The art and science of helping adults to learn (Henschke, 2011:34). The andragogical learner chooses to take responsibility for achieving his own learning needs (Fisher, King and Tague, 2001:517).

1.13.2 Blended approach

This refers to the enriching of face-to-face teaching by incorporating online discussions, as well as other media technologies to create a more learner-centred learning environment (Frantz, Himalowa, Karuguti, Kumurenzi, Mulenga and Sakala, 2011:15-16).

1.13.3 Distance education

Distance education refers to programmes designed for specific needs of an identified learner population. Student learning is the central focus of the programme and the teacher's role is that of a facilitator and collaborator rather than the conveyor of knowledge. Educational and administrative processes are supported by decentralized support services. Distance education programmes may be offered as correspondence, open learning or electronic classroom education. Instruction in distance education allows for no face-to-face class or limited teaching time (Lewis and Farrell, 2005:364).

1.13.4 Heutagogy

It refers to the process used to create a self-directed learning environment for students to discover their own strategies for learning and comprises of building self-confidence to actively participate and share their knowledge, while acknowledging how these strategies can be transferred to their daily work practices (Canning, 2010:59).

1.13.5 Lifelong education

Lifelong education is an "umbrella term" that refers to planned series of incidents to provide learning opportunities from the onset to the end of someone's life (lifelong) (Jarvis, 2005:656).

1.13.6 Self-directed learning

A method of instruction in adult education whereby learners accept responsibility for their individual learning. These learners take control and accepts the freedom to choose to learn what they regard as important for them to learn. The degree of control the learner is willing to take for his individual learning depends on his attitude, aptitude and personality characteristics (Fisher, King and Tague, 2001:516).

1.13.7 Telematic broadcasts

Telematic broadcasts refers to the online interactive web-based classroom whereby distance education students are in contact with peers and the lecturer by means of a virtual classroom. Students can interact with the lecturer although they are not in the same physical space. Telematics serve a blended teaching approach whereby face-to-face activities and interactive telematic satellite broadcasts are combined (Mercuur, 2012:1-2).

1.13.8 WebCT

WebCT is a system that provides e-learning in higher education whereby full courses can be presented online or existing courses can be enhanced/supplemented by placing study material and communications to students on the site. Registered students need to login with a password to access the online WebCT. WebCT requires a very good computer infrastructure and support systems to manage the technical difficulties that occur (Sneller, 2004:130).

1.14 STUDY LAYOUT

Chapter 1: In this chapter the scientific foundation of the study was presented with a brief description of the rationale, problem statement, research question, goals, objectives and research methodology.

Chapter 2: A literature review of factors that influence studies of mature distance education students, national and international is described, with attention to literature on Master's Degree in Nursing studies.

Chapter 3: The research methodology being applied in this study is discussed in detail in this chapter.

Chapter 4: In this chapter the data analysis, interpretation and discussion about the study results are presented.

Chapter 5: The conclusions and recommendations, based on the scientific evidence obtained from this study, are presented in this chapter.

1.15 CONCLUSION

In this chapter the researcher described the rationale for this study and introduced the research goals and objectives. A concise introduction of the research methodology being applied in this study was presented.

The following chapter gives a detailed discussion of the literature review which contributed to the composition and structure of the study.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The non-completion of Master Degree studies is a global phenomenon (Subotszky, 2003:367; United States of America Department of Health and Human Services, 2005:9 and Kemp in Smith, 2002:1). It also occurs across study disciplines (Kritzinger and Loock, 2012:7).

An array of factors either opposes or supports progress in Master Degree studies. Three themes of discussion were identified from literature. The themes that will be discussed are the factors related to the student, the programme, the higher education institution and the employer. Extensive research have been done on the influence of personal factors. However, literature revealed suggestions on further research on influencing factors related to the student experience of distance education and the motivation to continue studies or to leave studies (Perry, Boman, Care, Edwards and Park, 2008:15). Postgraduate students indicated academic factors related to support and institutional factors such as availability of resources for example library facilities to be a need during studies (Koen, 2007:52). Further more research is suggested on the influence of factors relating to the employer such as the influence of employer support of the employed on attainment rates (Black and Bonner, 2011:167).

2.2 AGE

The average age of South African Master Degree students is 34 years of age (Council on Higher Education (CHE), 2009:xxii). Students of 23 years and older are regarded as of "mature age" by South African legislation (CHE, 2007:128). According to Ofori and Charlton (2002:512), academic performance and age correlate positively. The age for best achievement is between 36 and 40 years with performance declining between 50 and 55 years (Newman-Ford, Lloyd and Thomas, 2009:21).

2.3 GENDER AND FAMILY RELATED FACTORS

In reference to age, it is of concern to the CHE that employment delays engagement in Master Degree studies (CHE, 2009:xxii). Mature students entering studies later in life have numerous commitments and roles that may include employment and family responsibilities (Walters and Koetsier, 2006:98).

Nursing is predominantly a female profession (Romem and Anson, 2005:173; South African Nursing Council, 2010:1). Kaminsky (2001:4) reports that professional, parental and relationship roles are the same for men and women, while gender expression of roles differ. Family responsibilities are a barrier to engaging in studies (Miller and Rector, 2002:339). According to Williams and Decker (2009:82), female students report difficulty in balancing studies with parental and family responsibilities. It is an accepted social norm that females have more household responsibilities than males (Toth, 2005:367-368). Female students with too many responsibilities are challenged by duty overload (Kaminski, 2001:5).

Students confirm that families and husbands are their most important social support (Lo, 2002:124). The contrary is reported for unmarried women with this group scoring lower on social support than married women (Kaminski, 2001:5). Family and friends that do not have an understanding of academic demands irritate students when they make demands that infringe on the student's time (Grenier and Burke, 2008:592 and 594).

2.4 TIME MANAGEMENT

Postgraduate students are of mature age (CHE, 2009:xxii; CHE, 2007:128). It is therefore expected that these adult students take ownership of their studies and adhere to their self-selected time frame (Lubbe, Worrall and Klopper, 2005:249).

According to Timmins and Nicholl (2005:479) time management is a stressor. An explanation for the stress is that students tend to enter postgraduate studies without any notion of the time their studies will require (Golde and Dore, 2001:29). The absence of a time management contingency plan therefore contributes to their stress (Lubbe, Worrall and Klopper, 2005:251).

Time management is a challenge to overworked (employed) students. Insufficient rest time affects health and may result in discontinuation of their studies (Glogowska, Young and Lockyer, 2007:67). Increased working hours therefore have a negative influence on study time with students in fulltime employment that tend to have poorer academic performance. The outcome for these underperformers is that they either leave or extend their study time (Orszag, Orszsag and Whitmore, 2001:2).

2.5 STRESS AND COPING

Although stress is part of daily living, increased stress is associated with physiological and mental health disruptions (Abdulghani, AlKanhal, Mahmoud, Ponnamperuma and Alfaris, 2011:518 and 520). A primary stressor during studies is the balance of study and work.

Stressors however vary from study group to study group (Timmins and Nicholl, 2005:479). Among nurses workload is a stressor and "emotional exhaustion" is a central factor in workload stress (Garrosa, Moreno-Jiménez, Liang and González, 2008:422). It is worth noting that underperformance and poor physical health are increased by high stress levels (Queen's University, 2008:2). Other factors that increase stress are family responsibilities, lack of time, lack of access to library facilities and appropriate study material (Siabi-Mensah, Badu-Nyarko and Torto, 2009:5-13).

Clinical manifestations of stress include anxiety, sleep and mental health disorders (Bujdoso and Cohn, 2008:5). Depression is the most commonly diagnosed mental illness among students and correlates positively with stress (Queen's University, 2008:2). Physical signs associated with stress include cardiovascular symptoms such as tachycardia, gastro-intestinal discomfort, neurological signs such as migraine and hormonal imbalances (Bujdoso and Cohn, 2008:5). During studies, health problems are regarded as the most difficult stressor to cope with. Poor health is hence a decisive factor in terminating studies (Glogowska, Young and Lockyer, 2007:67). Stress indicators differ between genders. Females report significantly higher stress levels than males (Queen's University, 2008:2). Females also report more instances of exhaustion, headaches and irritability than males (Shaikh, Kahloon, Kazmi, Khalid, Nawaz, Khan and Khan, 2004:348).

The supporting role of the supervisor is a stress reliever for students (Stack, 2008:15). Although students acknowledge their supervisor’s support and student support services they however regard it as inadequate (Glogowska, Young and Lockyer, 2007:70). Genders demonstrate different coping mechanisms with women tending towards study and sleep, while males socialise, participate in sport or withdraw (Shaikh, Kahloon, Kazmi, Khalid, Nawaz, Khan and Khan, 2004:351). Kuhn, Kranz, Koo, Cossio and Lund (2005:3) support the display of inactive coping techniques. Students tend to disregard attention to exercise as a coping mechanism. Sun, Buys, Stewart, Shum and Farquhar (2011:122) support the lack of interest in "active coping strategies". Time given for exercise is noted as a barrier (Queen's University, 2008:1).

Alcohol and substance abuse are described as examples of adverse coping behaviour (Aldridge-Gerry, Roesch, Villodas, McCabe, Leung and Da Costa, 2011:128; Smit, Pretorius and Joubert, 2009:17). A study by Kuhn, Kranz, Koo, Cossio and Lund (2005:3) do not support literature that students demonstrate increased intake of alcohol as coping behaviour. Over the counter medication such as analgesics may be used to cope with stress (Stasio, Curry, Sutton-Skinner and Glassman, 2008:542). Koushede, Holstein, Andersen, Ekholm and Hansen (2010:351) support the view that the use of analgesics is significantly associated

with "perceived stress". Smoking of cigarettes may be used to handle stressors (Sun, Buys, Stewart, Shum and Farquhar, 2011:122). Kuhn, Kranz, Koo, Cossio and Lund (2005:3) however do not support this perception, as there is no "significant increase" in cigarette smoking as a coping mechanism. Eating practices however do change when stressed. Kandiah, Yake, Jones and Meyer (2006:121) support this premise as stress is significantly correlated with food intake. Most respondents used increased food intake as a coping behaviour.

Not coping with stress may cause students to quit studies; several recommendations are suggested, such as early intervention to prevent termination (Birks, McKendree and Watt, 2009:2). Lubbe, Worrall and Klopper (2005:259) recommend peer association with students who successfully managed similar stress. These senior peers provide constructive guidance to inexperienced students. "Buddy systems and peer mentoring" are supported to facilitate student adaptation (Fildes, Cunnington and Quaglio, 2010:31).

2.6 MOTIVATION AND RE-ENTERING EDUCATION

Adults are both internally and externally motivated (Collins, 2004:1485). Professional development, personal growth and career development are intrinsic motivators to continue education (Hardwick and Jordan, 2002:527). Students enrolled in specialist courses are intrinsically significantly more motivated in contrast to the low internal motivation reflected by those enrolled for general courses. No substantial difference between the two different study groups is observed with regard to external motivation (Adcroft, 2010:11 and 17).

Managerial pressure is an external motivator for further studies (Hardwick and Jordan, 2002:527). However, external motivators such as promotion and attaining a postgraduate qualification are too weak to ensure study success (Stack, 2008:13). Quinn, Thomas, Slack, Casey, Thexton and Noble (2005:18-32) forewarn that a wrong mind-set on commencement of studies and fading desire to persevere may lead to desertion thereof.

2.7 FINANCES

2.7.1 Student finances

Finances are a great concern to students (Steele, Lauder, Caperchione and Anastasi, 2005:576). Finances are particularly a constraint to employed students because of a modest salary with increasing living costs during studies (Devlin, James and Grigg, 2008:115-116). In South Africa, part-time working adult students do not qualify to benefit from the National Student Financial Aid Scheme (NSFAS), because they do not meet the National Student Financial Aid Scheme's means test requirements (CHE, 2007:147). The Sector Education

and Training Authorities (SETAs) exclude financial aid from the workplace skills fund for part-time studies (CHE, 2007:148). Although aid in the form of bursaries is available, bursary students report that they miscalculate the cost of studies (Glogowska, Young and Lockyer, 2007:68). Steele, Lauder, Caperchione and Anastasi (2005:576) reflect that although funding systems for mature students exist, students experience it as insufficient to support a family while studying.

Employer assistance for postgraduate studies, based on performance, adds another dimension to student finances. As financial assistance is offered on payback terms, students who terminate their studies are responsible for the debt (Naidoo, 2008:10).

The influence of finances is decisive when students experience studies as a draining factor to family resources. Rather than putting their families at risk, students experiencing financial challenges feel obligated to withdraw (Quinn, Thomas, Slack, Casey, Thexton and Noble, 2005:30). Financial considerations may be an important factor in withdrawal from studies, but those with sufficient finances and academic credits still leave without completion. Koen (2007:11) is for this reason of the opinion that finances are not enough reason to discontinue studies. The principles of adult learning however, allow students autonomy, goal -orientated and self-directed learning in their studies (Collins, 2004:1485).

2.7.2 Employer finances

Employers play an important role when they give financial support to employee students (CHE, 2007:146). Nurses value employer financial support for continuous education and they stay loyal to such employers (Chan and Morrison, 2000:117). According to Cowan, Shapiro, Hays, Afifi, Vazirani, Ward and Ettner (2006:83), employers receive positive dividends on their investment in continuous education of professional nurses in terms of reduced patient costs due to improved patient care.

Employers also utilise financial support for continuous education as a retention strategy to attract experienced nurses (Bryant-Hampton, Walton, Carroll and Stickler, 2010:121-122). Aiken, Clarke, Sloane, Sochalski, Busse, Clarke, Giovannetti, Hunt, Rafferty and Shamian (2001:51) support this strategy as it supports lifelong learning among nursing personnel.

2.7.3 Institutional financial intelligence

The transformation of campus centred Higher Education Institutions to accommodate distance education serves the dual purpose of increasing tertiary education access and augmenting Higher Education Institution income (Mays, 2005:218). Rumble (2007:168) advocates distance education as more affordable and amenable to the needs of lifetime learners. According to Wood (2009:2) it is a misrepresentation that distance education is a

cheaper education mode. Higher Education Institutions are obliged to charge full tuition fees, irrespective of the mode of tuition.

The National Government awards Higher Education Institutions grants according to academic and research output (De Villiers and Steyn, 2008:5). Distance education output on the other hand poses a challenge to the present policy requirements for a grant. Distance education students study at a pace they can manage and tend to “dip in and out” of a programme. This study pattern tends to extend study time and may be perceived as poor Higher Education Institution output performance. The present measure to allocate government finances on an expected linear attainment performance does not support distance education outcomes at Higher Education Institutions. The output of an Higher Education Institution should therefore rather be redefined as the success rate per module (Yorke , 2004:19 and 29). According to Mills and Hrubetz (2001:171) the norm to award distance education concerning their output is still to be investigated.

2.8 INFLUENCE OF THE MODE OF STUDY

2.8.1 Part-time studies

Part-time study is a growing component at Higher Education Institutions. This mode of study, however, puts substantial pressure on students (Kember and Leung, 2004:346 and 355). Kember and Leung (2004:354) and Martin, Maclachlan and Karmel (2001:7), emphasize that part-time study has a higher drop out rate than full-time study. In addition, this could also be attributed to the fact that part-time students report an "absence of belonging". Students who do not develop a sense of belonging tend towards an inability to persevere and to withdraw (Kember and Leung, 2004:346). Lowis and Castley (2008:342) support this premise and add that Higher Education Institutions who wish to improve throughput need to address the problem of non-engagement. Mature part-time students function with full programmes and studying add to their obligations (Kember and Leung, 2004:354). Students perceive part-time studies as more time consuming and laborious than traditional studies (Morgan et al. in Gaskell, 2006:97). Students therefore tend to abandon and reject part-time study as a mode of preference (Quinn, Thomas, Slack, Casey, Thexton and Noble, 2005:20).

Furthermore, part-time Master Degree students tend to have extended attainment time (Kaminski, 2001:3; Martin, Maclachlan and Karmel, 2001:21). Neumann and Rodwell (2009:61) do not support the notion that part-time students utilise extended time to graduate since completion time of part-time research students is faster according to them compared to the true time full-time research students utilize.

2.8.2 Distance education

Distance education students are mostly full-time employees with multiple role responsibilities (Preston, 2005:104). Sub-Saharan Africa Higher Education Institutions offering distance education are encouraged to transform to be more student supportive. The transformation comprises increased direct contact such as telematic broadcasting in traditional correspondence programmes and electronic student contact (Mays, 2005:218). This blended education mode may include discussion support groups and face-to-face contact (Walters and Koetsier, 2006:105). Lee, Tiwari, Hui Choi, Yuen and Wong (2005:207) report that most nurse students prefer varied modes of teaching in distance education.

According to Zirkle (2002:4) distance education students are more disparate than campus students. The compilers of programmes for distance education students are therefore challenged to prepare courses that accommodate different learning styles and study circumstances. Walter and Koetsier (2006:105) emphasize programme flexibility as an important distance education student need in programmes. Distance education is a challenging mode of education and is influenced by several barrier factors such as ambiguous assignments (Seyedfatemi, Tafreshi and Hagani, 2007:2). Distance education students report frustration with interpretation of ambiguous assignments due to the inability to resolve uncertainties immediately (Hara and Kling, 2000:569-570). Rural distance education students face information technology and internet access barriers. High speed internet services are not the norm in rural areas, consequently distance education students have time and cost challenges with dial-up services (Fey, Emery and Flora, 2008:78). Supervisors have support challenges when distance education students do not keep to deadlines (Tait, 2004:106). Thus, factors that contribute to success in distance education are clear, well-structured assignments and sufficient completion time thereof (Wood, 2009:2).

Retention in distance education challenges innovative thought in higher education to regard suspension as an ordinary element of life (Gibbs in Gaskell, 2006:97). Quinn, Thomas, Slack, Thexton and Noble (2005:13,17 and 36) endorse the argument that 'stop out' from studies should not be regarded as negative. According to them the negative association with premature termination of studies a creation of policies in higher education. Students 'stop out' as the most reasonable action given their circumstances. Gaskell's (2006:97) view is that distance education students make informed choices and are more advanced lifelong students than what Higher Education Institutions wish to acknowledge. Despite improved information technology communication in distance education, a comparative meta-analysis on empirical literature between 1985 and 2002, upholds the premise that distance education has lower attainment than classroom education (Bernard, Abrami, Lou, Borokhovski, Wade, Wozney, Wallet, Fiset and Huang, 2004:404-405). This view is supported, with classroom

students reporting higher drop out before commencement than distance education students do. An interpretation to the distance education drop out is, to be qualified as "life interfered" (Frydenberg, 2007:9 and 12).

2.9 EXPECTED EMBEDDED SKILLS AND ABILITIES

2.9.1 Nursing research and research skills

Internationally nursing professionals are not renowned as researchers (Nikodem, 2008:2). In nursing continuous education research is indicated as the field of least appeal (Lee, Tiwari, Hui Choi, Yuen and Wong, 2005:207). Evidence based practice is however the trademark of competent experienced nurses (Bruce in Rispel, 2008:13). Academic programmes at Master's Degree level are therefore essential to prepare professional nurses as clinical nurse specialists (Holzemer, 2005:237).

It is imperative that basic research skills should be in place when embarking on continuous education at Master Degree level (Botes, 2001:21). Lubbe, Worrall and Klopper (2005:244) regard it an error to assume that basic research skills are established at undergraduate level. Students seem to lack understanding and knowledge of research methodology on engagement of continuous education. Nursing participants endorse that their pre-registration training lacked sufficient research skills and knowledge (Lee, Tiwari, Hui Choi, Yuen and Wong, 2005:209). It is therefore alarming to note that at the 2005 European Conference, concerns were raised on the possibility of the "stripping out of difficult modules" such as research methodology and statistics from under-graduate curricula (Lubbe, Worrall and Klopper, 2005:243).

One option to address immature research skills of postgraduate nursing students is a structured online self-study research program (Odom, Barnes and Wicker, 2005:147). Botes (2001:19) supports preregistration study in research methodology for Master Degree nursing candidates. Another approach to improve throughput is the 3+1+3 approach. In this, still debated approach, the one year is dedicated to research methods and design prior to continuous education (Lubbe, Worrall and Klopper, 2005:247).

2.9.2 Language skills

It is vital that students have communication skills in a universal academic language such as English (Naidoo, 2008:25). Globalization challenges Higher Education Institutions with international trends where English is the primary language of international scientific interaction (Altbach, Reisberg and Rubley, 2009:3). International academic migration of students supports English as the primary language of communication (Altbach, Reisberg and Rubley, 2009:iv and viii). Sandiford and Jackson (2003:11) support English proficiency as a

predictor of performance. Salamonson, Everett, Koch, Andrew and Davidson (2008:86) support this view and cite a significant positive correlation between English proficiency and performance.

Effective academic communication can however be influenced by a home language (Naidoo, 2008:25). Latief (2005:56-57) supports this view because a home language influences academic accomplishment in that if the instruction language differs from the home language it may influence the length of study time for example Non-English students instructed in English exceeded the prescribed completion time. English mother tongue nonetheless does not guarantee success with English course material (Naidoo, 2008:41). English first language students are however constantly better performers compared to English second language students (Miller, Bradbury and Wessels in Stephen, Welman and Jordaan, 2004:42).

Strong abstract conceptualisation in a first language is needed to build links to a second language to ensure success in a non-first language environment (Naidoo, 2008:41). Students struggling with conceptualisation in the instruction language are therefore at risk of limited theoretical success (Stephen, Welman and Jordaan, 2004:42). Salamonson, Everett, Koch, Andrew and Davidson (2008:91) support the foresaid and explain that it takes English second language students 5-10 years to acquire the level of "cognitive academic language proficiency". In an attempt to overcome underdeveloped language skills students may utilise strategies that put them at risk of plagiarism (Murray, 2010:56).

According to Lun, Fischer and Ward (2010:606) there is a significant relationship between language skills and critical thinking, thereby language skills influence cognitive performance. Scholtz, Braund, Hodges, Koopman and Lubben (2008:30) support this view that proficient language skills are the foundation to successful thought expression in discourse formulation.

2.9.3 Cognitive skills

Critical thinking is an anticipated outcome of Master Degree education (South African Qualifications Authority, 2012:8). Critical skills are significantly better in Master Degree nursing graduates compared to commencing Master Degree colleagues (Drennan, 2010:425). Post-basic nursing students however report that previous tertiary education did not foster critical thinking skills because the accumulation of facts was given priority (Platzer, Blake and Ashford, 2000:1004). On the published Watson-Glaser Critical Thinking Appraisal (United Kingdom) scores for Master Degree, nursing graduates report significantly lower scores compared to Master's in Business Administration students and teachers. According to Andrews (2007:3) critical thinking is the critical substructure in argumentation.

Although argumentation is a noted communication skill, little attention is paid to developing the skill at undergraduate level (Andrews, 2007:1 and 2). Scholtz, Braund, Hodges, Koopman and Lubben (2008:30) support the notion that argumentation must be taught and demonstrated to students. The complexity of argumentation practices are however influenced by language, culture and education (Andrews, 2007:3 and 6). According to Scholtz, Braund, Hodges, Koopman and Lubben (2008:30) poor language skills have an adverse effect on expression in a discourse. Argumentation models vary according to culture (Robertson, Line, Jones and Thomas, 2000:98). Both the Confucian tradition and ubuntu worldview are inclusive, where reasoning departs from the specific to a general approach opposed to the Western, general to specific approach of conducting a discourse (Andrews, 2007:11; Scholtz, Braund, Hodges, Koopman and Lubben, 2008:32). According to Grosser and Lombard (2008:1369) students practice situational "frame switching" whereby they internalize approaches (cultures) and apply it according to the situation for example at home ubuntu is applied, but Western culture is applied at school. Students whose culture differs from the academic norm select a "middle way" and utilise elements of both dialectic and peace-making dialogue to prepare discourse. Sensitivity to cultural diversity will empower academic staff to provide constructive support to students to adapt to the expected argumentation model (Durkin, 2008:16 and 24).

Well-developed analytical skills are required in research (Lubbe, Worrall and Klopper, 2005:243). Andrews (2007:5-6) uses this premise to explain students' struggle to convey the multi-voiced character of the spoken word to the monologue of written argumentation. In argumentation, students are expected to demonstrate clear, logical connections to the arguments described. According to Koen (2007:4 and 11) students lack faith in argument preparation and an inability to associate variables to consequences. Dissertation Master Degree students who experience a lack of academic capacity and higher order conceptualisation tend to become dormant.

2.9.4 Writing skills

Effective academic writing is the extended performance outcome of several cognitive activities. The development of writing skills takes place in phases and requires at least twenty years to progress from knowledge-conveying to knowledge-generating (Kellogg, 2008:1-2). Writers display high cognitive function in managing the multifaceted connections of planning, creating and scrutinizing their work (Kellogg, 2008:11). It is therefore imperative that students in higher education have to learn and develop academic writing skills. Despite the assumption, little is done in this regard in higher education courses (Whitehead, 2002:498).

Students experience difficulty in writing a discourse. They have difficulty assessing literature for appropriateness for inclusion in their writing. Most challenging is the ability to select the most appropriate material, as the choice is based on exposure to extensive sources. Other challenges to dissertation writing are correct referencing and linking of variables (Gimenez, 2008:157,159-160). Master Degree nursing respondents acknowledge writing skills as a challenge in dissertation writing (Whyte, Lugton and Fawcett, 2000:1078).

Students have knowledge on the structural requirements of academic writing (Whitehead, 2002:501). Lubbe, Worrall and Klopper (2005:255) do not support this, because they find a lack of organisation in their writing. A compromising factor to academic writing is the contradicting feedback from different lecturers that tend to cause students to doubt their writing abilities (Whitehead, 2002:501-502). According to Gimenez (2008:160-161) a lack of diversity in vocabulary has an adverse influence on students' expression abilities. Non-native English speakers are consequently challenged in preparing scripts in acceptable 'standard English'. Students tend to underestimate the value of a grammar check on their scripts and tend to ignore grammar assessment as marking criteria. Bitchener and Basturkmen (2006:12) support this and add that the "discussions of results" are adversely affected by a lack of language proficiency, linguistic impairment and the inability to prepare scientific writing. Utilisation of information technology, however, improves the quality of text content, linguistic and language presentation. "Word-processing-assisted writing" eases spell checks and multiple text revisions (Li and Cumming, 2001:138-140). Postgraduate students with underdeveloped writing skills tend to struggle and intensify the strain on support systems and supervisors (Koen, 2007:3). Students who struggle to cope with expected writing skill outcomes of a Master's Degree tend to quit (Kaminski, 2001:1).

2.9.5 Learning style and online learning

Mature students have diverse learning styles and prefer to be actively involved in reaching their goal (Collins, 2004:1485). The influence and significance of success of a learning style in online learning is widely debated, but no significance is yet established related to diversity of instruments and low validity and reliability of online instruments (Santo, 2006:85-86).

According to Baker, Pesut, McDaniel and Fisher (2007:215) the predominant learning style of advanced nursing education students is Kolb's accommodator style. The accommodator style is supported as the dominant style for online nursing students. This style prefers "hands on experiences", execution plans and duties and demonstrates an "intuitive trial and error approach to problem solving" (Smith, 2010:49 and 51). According to Terrell (2002:349) accommodators reflect a lower attainment rate than students with a preference to abstract conceptualization learning. However, there is no statistical significance between attainment

and learning styles. This outcome is explained in that students have a high internal motivation and that they alter their style to accommodate online studies (Terrel, 2005:5-7). It is therefore important that course designers and instructors provide a variety in modules to facilitate learning for all styles (Lu, Jia, Gong, and Clark, 2007:195). Terrel (2002:351) supports this notion and emphasises that these actions will improve throughput.

2.9.6 Information technology and online programme

The educational needs of employed professional nurses are provided by online education (Smith, 2010:49). Online studies serve as a solution to employees to continue studies without leaving the workplace (Mangan, 2001:1). Online studies however challenge both Higher Education Institutions and students requiring students to be competent computer users in order to utilise the Web-based programmes (Mills and Hrubetz, 2001:171).

2.9.6.1 Information technology and Computer literacy

Nursing students are challenged with computer access challenges, technology limitations and computer literacy barriers (Kandeel and Ibrahim, 2010:42). Although telecommunication is available, students lack residential access (Gaskell, 2006:95). The high costs of technology and broadband internet also limit access and utilization of such technology (Fozdar and Kumar, 2007:2). Although students should have information technology skills to manage online education, Higher Education Institutions are urged to have computer skills updated by making workshops available so that students can benefit from access to online resources such as library searches (Preston, 2005:115-116).

Nelson and Staggers (2008:93) support computer literacy as a competency for nurses, but indicate "computer fluency" as the true competency. "Fluency" is acquired by management of "contemporary skills" through utilizing general software applications as illustrated with electronic messages, as well as being knowledgeable on "foundational concepts" such as basic principles on which computers work and "intellectual capabilities" whereby technology is used to do problem solving. "Foundational concepts and intellectual capabilities" are the foundation for future computer utilisation, because "contemporary skills" change with the development of technology. Technology utilisation however differs with generations as found in the Millennials (Born 1982-2002) who are well equipped with computer skills and Baby Boomers (Born 1943-1960) who often struggle with technology (Johnson and Romanello, 2005:214). Postgraduate nursing students acknowledge their need for improving their information technology skills to meet their distance learning needs (Cook, Thynne, Weatherhead, Glenn, Mitchell and Bailey, 2004:274). Whyte et al. (2000:1077) support this premise and explain that Master Degree nursing students report computer utilisation as a challenge and for some it is the most difficult aspect of their studies.

2.10 FACTORS RELATED TO HIGHER EDUCATION

2.10.1 Admission criteria

A significant correlation exists between throughput and appropriate student selection (Letseka, Cosser, Breier and Visser, 2009:79). They warn that accommodating students who do not comply with minimum admission requirements put Higher Education Institutions at risk. Koen (2007:15) supports open admission as a recipe for disappointment. Tait (2004:104) adds that supervisors are burdened by policies that allow recruitment and admission of poorly prepared and high-risk students.

The value of an entrance examination as admission criteria is not a good predictor of success. A subject specific admission examination is of more value than a credit point system (Häkkinen, 2004:27). Botes (2001:21) supports subject specific criteria and explains that performance in research methodology is the optimum selection criteria for a Master's Degree in Nursing.

Significant throughput predictor variables are undergraduate performance and the time interval between undergraduate and Masters Degree studies (Agbonlaho and Offor, 2008:185). Botes (2001:21) does not support undergraduate performance as a superior variable to success opposed to subject specific criteria. Newton and Moore (2007:330) support a benchmark undergraduate grade point average as a significant predictor of success. According to Agbonlaho and Offor (2008:183 and 185) throughput is better with a short time lapse between undergraduate and Master Degree studies. A time lapse of less than 5 years between undergraduate and Master's Degree enrolment is a good predictor of success.

Online studies require readiness. It is therefore important to do an online assessment of student readiness for online distance education prior to commencement. Computer competency should therefore be an extra admission criterion for online Web-based programmes (Mills and Hrubetz, 2001:171).

The criteria for recognition of prior learning should assure the nomination of the best candidate for continuous education (Newton and Moore, 2007:331). According to Dickson, Fleet and Watt in Naidoo (2008:24) it is however of concern that credits for prior learning allow students access to higher-level courses, while their current progress is not according to expectations.

2.10.2 Academic assistance

2.10.2.1 Supervision

A focussed supervision approach is characteristic of natural sciences, but humanities and social sciences permit more conversation with extended attainment times (Smeby, 2000:53). The supervisor's role is paramount in guidance in the selection of an appropriate research topic. Continuous supervisor attention ensures quality control of the research process and student progress (Lubbe, Worrall and Klopper, 2005:245-246).

The supervisor-postgraduate-student relationship is unique in that students should feel free to communicate their supervisory needs. Students are obliged to synchronise supervision needs with supervisor availability (Stack, 2008:10-11). Employment responsibilities however challenge students and deprive them of consultation time with their supervisors (Kearsley in Lubbe, Worrall and Klopper, 2005:251). Supervisors perceive that confident students make contact and by doing so benefit the most from feedback and supervisor contact (Simpson, 2004:80). According to Lubbe, Worrall and Klopper (2005:251, 252 and 254) students tend to overlook supervisors as a support resource. The justification is that students should be bold and request more dedicated support when, despite dedication, time frames are not honoured. Supervisors can therefore play a significant role in getting backsliding students focused and back on track. Supervisors who continue teaching regardless of poor performance are likely to influence students to persevere (York, 2004:29).

Students value supervisor feedback and guidance as significant (Letseka, Cosser, Breier and Visser, 2009:74). Students acknowledge supervisors' laborious task but prefer favourable and disapproving feedback above scanty practices. Students report uneasiness with the quality of feedback because interpretation of feedback is prone to misunderstanding between student and supervisor (Holmes and Papageorgiou, 2009:85, 91 and 95). Olivier (2007:1136) supports this and acknowledges students' feelings of disempowerment on return of assessment comments. Holmes and Papageorgiou (2009:87 and 91) explain that, despite feedback being done according to known criteria, students remain dissatisfied. Students tend to quantify graded feedback and when the grade, for example good, does not match the anticipated percentage outcome, students are disappointed. Students who are unfamiliar with specific tertiary challenges may experience feedback as harsh when compared to their track record. Quinn, Thomas, Slack, Casey, Thexton and Noble (2005:23) support the foresaid in that students with a novice university experience report disillusionment with received feedback. Written feedback is the best because it serves as reference for improvement on future papers (Holmes and Papageorgiou, 2009:90 and 92).

Online studies allow convenient access to supervisors and convenient teaching time for supervisors (Cook, Thynne, Weatherhead, Glenn, Mithell and Bailey, 2004:273). Students however identify the lack of personal attention a barrier (Gaskell, 2006:96). Zirkle (2002:13) supported this premise, but supervisors are alerted to be sensitive to directing needs of distance education students. These students may lack sufficient support because they are just names to the supervisor. According to Tait (2004:99) the relationship between distance education students and supervisors is critical in preventing drop-outs.

Mature students compliment supervisors because they understand their androgenic learning needs (Steele, Lauder, Caperchione and Anastasi, 2005:577). Lessing and Schulze (2002:146) support student appreciation of assistance. Koen (2007:50) reports to the contrary that students experience unhealthy relationships with supervisors characterised by "doctor-patient consultation" experiences, laid-back supervision and insensitive time management. Lubbe, Worrall and Klopper (2005:253) add that students with adverse experiences will maintain a silence and finish their studies on their own.

The role of the Higher Education Institution cannot be underestimated for example the pressure on students to complete dissertations within 30 months. Supervisors are therefore worried that "dissertation development" is devalued (Bujdoso and Cohn, 2008:3). It appears that Higher Education Institutions do not acknowledge the pressure on supervisors to address throughput and the assistance unprepared students require (Stack, 2008:13). Ismail, Abiddin and Hassan (2011:78) endorse the workload of the supervisor while students protest the unavailability of supervisors with responsibilities which are related to administration, lecturing and numerous students. Martin, Maclachlan, and Karmel (2001:22) therefore doubt that the student's support needs are met in institutions where throughput is poor. They suggest that mentor practices be addressed at Higher Education Institutions where abnormally long study times in Master Degree studies are reported. To address supervisor workload on postgraduate level, a student suggests one supervisor for ten students (Holmes and Papageorgiou, 2009:91). Students also expect supervisors to be subject specialists (Wisker and Brown in Stack, 2008:7). Despite the expectation, students report that supervisors demonstrate poor research expertise and knowledge (Koen, 2007:3). Bettany-Saltikov, Kilinc and Stow (2009:621) however describe that dissertation marking outcomes are reliable on the "application of generic assessment criteria" with subject expertise not being a prerequisite.

2.10.2.2 Supporting resources

Higher Education Institutions are pressurised to provide budget friendly, but efficient library resources (Nicholas, Rowlands, Jubb and Jamali, 2010:377). Despite economic challenges,

the educational library infrastructure still allows students distance access to subject matter while maintaining an efficient service (Nicholas, Rowlands, Jubb and Jamali, 2010:380). According to Mills and Hrubetz (2001:168) electronic librarian services are invaluable for online studies. Students acknowledge librarian assistance as a rewarding experience (Lessing and Schulze, 2002:146). Lubbe, Worrall and Klopper (2005:254) support the value of subject librarians in doing literature research. The digital era, however, has changed the manner in which users access information. Libraries are no longer the primary source and place to conduct a literature search (Ross and Sennyey, 2008:145). On the contrary, Lubbe, Worrall and Klopper (2005:254) alert students to the fact that searching the World Wide Web is no guarantee to access good reliable scientific information. They suggest that subject librarians should assist with electronic research.

Many students in tertiary education in South Africa present scripts in either their second or third language. It is therefore important for language editors to be mindful of their role when they assess research papers. Language editors exercise quality assurance on language, controversies and faulty referencing but are not allowed to intervene in improving material to acceptable academic standards (Van Aswegen, 2007:1144, 1148 and 1150).

Another invaluable support resource is the contribution of the statistician, as students may quit when experiencing frustration in the analysis of collected data (Lessing and Schulze, 2002:147). Baker, Bingle, Hajewski, Radant and Urden (2004:138) support the fact that data analysis may be a challenge to students as they may experience it as a time consuming activity.

Stellenbosch University offers a range of support to registered students. The Centres for Academic Support includes the Centre for Teaching and Learning, Centre for Student Counselling and the Language Centre. Stellenbosch University also implements a mentor system to support high-risk students. At the Language Centre, students receive support in the development of scientific and academic reading and writing skills (Letseka, Cosser, Breier and Visser, 2009:70 and 72). Koen (2007:2) supports comprehensive support and advocates the inclusion thereof in an institutional plan to improve throughput. On the contrary, Quinn, Thomas, Slack, Thexton and Noble (2005:25-26) report that although students with low self-esteem are aware of available academic support, they tend to not utilise the opportunity.

2.10.3 Education institution

2.10.3.1 Conclusion of higher education

The recognised product of postgraduate studies should be the developed student. Tension, however, develops between Higher Education Institution throughput requirements and the development of students to more than a pass in a thesis (Stack, 2008:16). Simpson (2004:82) agrees on measures to improve retention rather than lowering academic standards to reflect higher retention numbers as an image of success. Higher Education Institutions are encouraged to utilise research outcomes to address retention, since the critical times for termination are between registration and commencement, and date of first assignment. A suggestion to improve is early registration, even up to a year before actual course commencement, to allow early intervention. Intervention at appropriate times recounts retention success (Simpson, 2004:83, 90 and 94).

2.10.3.2 Enrolment flexibility

The decision process to continue or withdraw from studies lacks research (Longden, 2002:4). Koen (2007:6) agrees with the foresaid and explains that the complexity of the interaction among factors influencing the decision to discontinue studies is under-researched. The most significant reasons for students to quit tertiary education are a mismatch between student and Higher Education Institution, unpreparedness, lack of dedication, financial barriers and underperformance (Yorke in Quinn, Thomas, Slack, Cassey, Thexton and Noble, 2005:3). Although finances are a barrier, it is not reason enough to stop-out, as students with sufficient finances and academic credits still leave programmes (Koen, 2007:11).

The perceptions on voluntary withdrawal need a paradigm shift in order to understand the decision motive (Quinn, Thomas, Slack, Cassey, Thexton and Noble, 2005:14-15). They are convinced that drop-out is a more complex phenomenon than what is admitted, as it is still believed that drop-out can be averted by institutional interventions. Park and Choi (2009:214-215) describe that drop-out is a multi factorial phenomena and students have little power over external factors that influence their studies. Frankola (2001:54) supports the notion that the reason for drop-out has no simple explanation. Simpson (2004:81) explains that it is unlikely that a good performer will withdraw; this will most likely be due to inevitable reasons such as poor health, employment or family matters. Koen (2007:10) supports the foresaid because drop-out students return when circumstances improve.

The acknowledged norm in education policy, even for continuous education, is still the linear conservative way of attaining a qualification. Current policies still expect students to perform within a fixed curve and time frame. This narrow viewpoint on retention and lifelong learning may disadvantage new categories of students that access higher education, as being

unprepared and not academically fit for tertiary education. Considering their circumstances, students from disadvantaged backgrounds who access higher education make sound decisions on continuation or leaving their studies temporarily. Policies do not acknowledge the “stop out” decision to be good, because it reflects a “drop out” according to the present policy for retention (Quinn, Thomas, Slack, Cassey, Thexton and Noble, 2005:13-17).

Adult students hence "need flexibility and mobility" to move in and out of work and study. This androgenic need requires success criteria to be rethought, such as “not to penalize institutions if a learner 'stops out' of study for a period of time." (CHE, 2007:150). The student's choice to withdraw is not acknowledged as positive or realistic, considering their circumstances (Quinn, Thomas, Slack, Cassey, Thexton and Noble, 2005:17). Drop-out students reflect on their decision and judge it positively and most appropriate at that time (Quinn, Thomas, Slack, Cassey, Thexton and Noble, 2005:53). Quinn, Thomas, Slack, Cassey, Thexton and Noble (2005:54) challenge the traditional concepts on HE and identify characteristics of a system that supports continuous education. For this study the following relevant factors are selected (Quinn, Thomas, Slack, Cassey, Thexton and Noble, 2005:54-55).

1. Promote mobility to exit and enter Higher Eduction as being positive and normal
2. No provisional assumptions on the duration of a course (fast tracking, as well as extended time is acceptable) - longer time lapses to be allowed before a student is judged to have terminated the course
3. A mitigation system of circumstance consideration whereby students with extra responsibilities and commitments are given acknowledgement
4. Higher Education Institution not financially punished for the different routes that students take to obtain qualifications
5. Student fees be charged per unit studied and not years of enrolment
6. An active system to follow-up on students who have stopped out to encourage them to re-enter in studies

Although South African Higher Education Institutions value Master Degree throughput, insufficient attention is paid to retention and prevention of withdrawal. Withdrawal from studies contributes to specialisation gaps in the labour market and leaves a skewed skills profile (Koen, 2007:1 and 9).

2.11 EMPLOYMENT RELATED FACTORS

2.11.1 Obligation of Continuous education

Professional nurse shortage in health services is a national and international phenomenon (Roodt and Eddy, 2010:2; Foley, 2000-2001:2). The aging nurse population is globally a healthcare threat (Roodt and Eddy, 2010:2; Kaminski, 2001:1). Healthcare managers therefore have reason for concern on skill and specialist gaps (Roodt and Eddy, 2010:1-2; Kaminski, 2001:1). To address nursing care expertise gaps nurse managers are challenged to support candidates for continuous education without jeopardising patient safety (Burrit and Steckel, 2009:479). In 2009 the National Minister of Health in South Africa introduced a 10-point plan to support nurse education and research (Motsoaledi, 2009:1). Travis, Bennet, Haines, Pang, Bhutta, Hyder, Pielemeier, Mills and Evans (2004:905) support the foresaid by adding that the Millennium Development Goals also urge managers to support research capacity. Managers are obliged to support continuous education and align education with institutional goals (Timmins and Nicholl, 2005:481). However, managers should refrain from the temptation to prioritise operational budget to the detriment of nurse training (Rondeau, Williams and Wagar, 2009:747).

To achieve superior nursing care commands that experiential learning be integrated with theoretical education. A minimum of 5 years experiential learning is needed to reach some level of expertise (Burrit and Steckel, 2009:479). Institutions who invest in workforce development also report improved nursing personnel turn over (Rondeau, Williams and Wagar, 2009:747).

2.11.2 Workload challenges

A shortage in nurse professionals is a global trend. In South Africa several factors contribute to the shortage, for example migration and a decrease in student numbers. Changing disease profiles and substantial specialist and generalist post vacancies augment the current nursing workload (Mabuda, 2009:1). Wildschut and Mqolozana (2008:61) alert that 32.8% of South African nurses are between 40 and 49 years. They add that only 1.3% are younger than 25 years and nurse auxiliaries are the bulk of the workforce which may signify a severe skill and nurse expertise shortage. Kingma (2007:1286) adds that nurse migration contributes to workload challenges of the remaining workforce. According to Muula, Panula and Maseko (2006:1 and 3) the loss of trained nurses to migration poses a managerial challenge to nurse managers; the adverse effect of lost skills and professional supervision is crystallized in poor nursing care and burnout among nursing staff. Kingma (2007:1284 and 1286) supports this and emphasizes the consequence of shortages of specialist nurses to be a lack of support and guidance to inexperienced nurses. The shortage of trained personnel

also affects nurse education and has an adverse influence on nursing student throughput because of a lack of clinical training at ward level (Mkhwanazi in Lehasa, 2008:94). Continuous education students link physical exhaustion and stress to high workload, demands of concurrent study and employment (Tsele and Muller in Towell, 205:2).

According to Mabuda (2009:6 and12) nurse managers should be assisted with human resource capacity to allow continuous education nominees the opportunity to become specialists. Insufficient finance is however a problem to the employer in substantiating the needed support.

2.11.3 Association between employment and studies

Students should be realistic on what studies entail to ensure that they can manage family, employment and studies (Packham, Jones, Miller and Thomas, 2004:340). Full-time employment and full-time study do not serve the purpose as the pressure to cope leads to premature exit (Agbonlaho and Offor, 2008:185). Self-employed students also report limited success, while students not employed are the most successful (Packham, Jones, Miller and Thomas, 2004:340).

Employment is regarded as the dominant factor linked to extended study periods for employed Master Degree students (Koen, 2007:52). Part-time students value work time and are not prepared to increase study time by sacrificing employment time (Kember, Ying, Wan, Yung, Wai, Mui, Wing, Heung, Sam, Chi, Wanze, Chuen, Anne, Chu, and Jason, 2005:235). Time spent in paid employment is the undeniable judge of academic achievement. The threshold for paid part-time services is sixteen hours per week. Academic performance was significantly better when part-time working hours did not exceed the threshold (Salamonson and Andrew, 2006: 346). Employers therefore have to evaluate their contribution to attainment of nursing qualifications. Employed nursing students report institutional rigidity which contributes to a burden that forces them to terminate studies (Glogowska, Young and Lockyer, 2004:74).

2.11.4 Employer a higher education patron

Employer support to the employed student can be offered as a reduced workload during his/her study programme (Park and Choi, 2009:210). The CHE (2007:146) values the employer's financial assistance as support. Callaghan, Tak-Ying and Wyatt (2000:1526) acknowledge managerial support to the student.

Time for studies is a major concern as the lack of employer time off support may lead to students considering withdrawal (Walters and Koetsier, 2006:106). The recommended time off for education (not classes) is one day every two weeks (Taylor, Ogle, Olivieri, Dennis and

English, 1999:101). Employed students will therefore negotiate flexitime to accommodate their studies (Timmins and Nicholl, 2005:481). Despite employer support, the support may be perceived as inadequate (Lee, Tiwari, Hui Choi, Yuen and Wong, 2005:209). The employer's lack to grant study permission is a barrier to studies (CHE, 2007:147).

Employer financial assistance for continuous education serves purposes such as augmented attainment and retention strategy (CHE, 2007:146; Chan and Morrison, 2000:117). Employed distance education students acknowledge reimbursement on attainment as financial assistance (Zirkle, 2002:13). Aligned with financial assistance is the recommendation that employers recognise attained qualifications by remunerating achievers on attainment (Trewthewie in Pelletier, Donoghue and Duffield, 2005:38). Gerrish, McManus and Ashworth (2003:107) caution that friction may arise between employee and employer when employers disregard Master Degree graduates and when managers do not validate the programme.

Respect and reaching fulfilment is a human need (Norwood, 2009:4). Undertaking higher education such as a Master's Degree is a nurse's approach to gain recognition (Bujdoso and Cohn, 2008:4). According to Duffield and O'Brien-Pallas (2003:194) there is a lack of recognition of nurse expertise gained by education and experience. Although the health needs of countries require the services of advanced nurse practitioners with a Masters Degree in nursing (specialists), the practice of the role is new to some countries (Sheer and Wong, 2008:204-208). Based on the higher education of these specialists, higher status is bestowed to the nursing profession (Löfmark and Mamhidir, 2010:7). A Master's Degree in Nursing also paves the way for a Doctorate of Nursing Practice which fulfils the need of clinical nurse practitioners who wish to attain a terminal degree in their specialisation field (Waxman and Maxworthy, 2010:32-33). In South Africa monitory benefits are implemented to encourage clinical specialists to remain in the service, but their "social standing and skills have not been addressed". A nurse analogy according to the medical model is suggested for South Africa to address recognition of expertise in clinical nurse specialisation. The implementation of nurse specialists and consultants in clinical services will foster social and professional recognition and retain skilled nurses in health services (Nikodem, 2008:1). An international model exists whereby the career progression curve gives recognition to nurses educated on a Master's Degree level to be parallel to "expert practice" (Whyte, Lugton and Fawcett, 2000:1079).

Promotion is not the most significant motivator to do a Master's Degree in Nursing but graduates are promoted on attainment of the higher qualification (Drennan, 2008:755). Pelletier, Donoghue and Duffield (2005:41-42) support this and add that degree education is a strong career advancement motivator. Nurse Managers should therefore be sensitive to

workforce needs to study and retain experienced nurses. According to Koen (2007:49), the present Master Degree students are the forthcoming academics. It is therefore a concern that presently insufficient attention is devoted to develop these students for a future academic role.

2.12 THEORETICAL FRAMEWORK

The two motivation theories that support this study are the needs driven theory of Maslow and the internal locus of motivation according to the Cognitive Evaluation Theory.

The motivation theory of Maslow is needs driven (Norwood, 2009:1). Maslow describes self-actualization as the motivational need to reach personal capacity (Mee, 2008:85). It is the continuous progression to become more than the present (Boeree, 2006:4). It is therefore not a target, but a point from where people act from personal choices to reach efficiency (Norwood, 2009:3). Self-actualizers are characterized as being self-reliant, unconventional, accommodative and have feelings of unlimited possibilities (Boeree, 2006:5). The Cognitive Evaluation Theory as a motivation theory centre on internal motivation and is driven by satisfying expertise and independence needs (Ryan and Deci, 2000:58). Therefore, both motivation theories support the fulfilment of a need to achieve, whether in reaching personal potential or to achieve competence with a sense of autonomy in reaching the objective to attain a Masters Degree in Nursing.

The study population is adult postgraduate nursing students. The education theories that support the study are adult learning, that is Andragogy and self-directed learning, or Heutagogy.

The adult learning theory, Andragogy, according to Knowles supports autonomy in the learning experience, acknowledges relevancy of learner life experience, recognizes learning eagerness, accepts that adults are problem orientated and internally motivated learners (Smith, 2002:7). Facilitated learning takes place in Andragogy because adult learners perform best when they are active participants in identification and obtaining resolutions to their learning needs (McAuliffe, Hargreaves, Winter and Chadwick, 2009:14). Heutagogy extends the concept of adult learning to adults that have lifelong learning based on the input and interaction with their milieu. Heutagogy allows adult learning without a learning need prerequisite (Hase and Kenyon, 2000:3-4). Self-directed learning therefore allows learners to develop their capabilities in a flexible learning environment (Hase and Kenyon, 2000:5-6). Heutagogy as a learner-centred theory and Andragogy support adult learners to be active participants in lifelong learning to reach personal capabilities according to individual choice.

Learning is a fundamental need to adults and adult learning feeds the "philosophy of lifelong learning" (Savicevic, 2008:361). Lifelong learning is however a multifaceted and complicated process. Challenges of external factors such as vocation, influence the adult learning process (Savicevic, 2008: 362 and 364). According to Allen (2010:37) nurse education needs transformation, allowing learner-centred education the empowerment of nurses to attain their potential in lifelong learning.

2.13 SUMMARY

Master's Degrees in nursing students are challenged with influencing factors of person, higher education and employment during their studies. These students are adult learners and fulfil several roles such as parent or spouse, breadwinner and professional team member. When these students enrol for continuous education they have to re-organise and prioritize time and resources. To comply with academic standards it is expected that they apply sound language and scientific writing skills. In doing so they utilize information technology which may be challenging when they have access and computer skills barriers.

An efficient support network is of utmost importance to these students to keep them motivated and on schedule. A support network includes the family, the academic staff and the employer. Although emotional and academic support is vital, financial support from the employer is highly valued. Often students are not aware of their lack of skills and when they commence Master's Degree studies they become demotivated by the effort they have to put into their studies. The supervisor is the primary guide and support to ensure quality and development in the study process. Effective communication between distance education students and their supervisors is therefore essential because of time and access barriers to both parties.

The role of the employer is not yet well explored. Employers have much power in the progress of students who wish to study Master's Degree in Nursing. Employed part-time students are challenged with workload demands such as a shortage of manpower in their institutions which causes exhaustion and stress in these students. Nurse managers who lack visionary leadership question the value of Master's Degree studies and may not support continuous education. This managerial decision does not only impede the enhancement of evidence based nurse practice but also poses a threat to the development of future nurse academics and researchers.

Figure 2.1: Factors influencing the attainment of a Masters Degree (Illustration: The researchers own)

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter 3 summarizes the research methodology applied in this study. The summary comprises the research design discussion, the research problem, the study population, the sampling method, data collection method, data analysis and limitations of the study.

3.2 RESEARCH DESIGN

A descriptive design with a quantitative approach of data collection was applied. In a descriptive design, information is collected on characteristics in a specific study field whereby the existing features of a situation are described (Burns and Grove, 2005:232). A quantitative approach to data collection entails the describing of present characteristics of a phenomenon, the studying of associations among variables and to establish the outcomes of applied actions (Burns and Grove, 2007:24).

The purpose of this study was to investigate factors that influence throughput of enrolled distance education Master's Degree in Nursing students at a specific Higher Education Institution in South Africa.

3.3 POPULATION AND SAMPLING

3.3.1 Population

According to Terre Blance, Durrheim and Painter (2011:133) the population comprises all the elements to be studied. Burns and Grove (2007:549) define population to be “all elements that meet the sample criteria for inclusion in a study; sometimes referred to be a target population”.

The target population in this study was enrolled Master's Degree Nursing students between 2004 and 2010 at the Division of Nursing at a specific university in South Africa.

3.3.2 Sampling

Sampling is the “process of selecting “ a representative cluster from a study population (Burns and Grove, 2007:554). Large samples are characteristic of descriptive studies (Burns and Grove, 2007:341). No sampling method was applied because of the qualified target population. Research participants therefore represented the target study population which prevented sampling bias.

3.3.3 Criteria

3.3.3.1 Inclusive criteria

All students enrolled for the Master Degree in Nursing between 2004 and 2010 at a specific university in South Africa were considered.

The researcher did not distinguish between students enrolled for the Master Degree in Nursing (full thesis only) and Master Degree in Nursing (structured degree). Although students tend to have multiple enrolments to complete their studies students were only allowed one opportunity to participate in the study. After a student successfully completed the first year and enrolled again, she/he was regarded as a second year student. This applied irrespective of the number of re-enrolments after successful completion of the first year.

The population included enrolled students irrespective of completion of the degree. National and international students with verifiable contact details were included.

3.3.3.2 Exclusive criteria

The researcher was excluded from the study although she fitted the population criteria.

Members from the target population with no verifiable or active contact details were also excluded. Ultimately the final population was 238 students.

3.4 PILOT STUDY

After permission was obtained from the university under study to research its Master Degree Nursing population the researcher conducted two pilot studies.

According to Burns and Grove (2007:549) a pilot study is a miniature account of the intended study to develop and improve the methodology. The purpose of the pilot study was the identification of procedure errors such as ambiguous instructions and formulation uncertainties, such as vaguely formulated items (Welman, Kruger and Mitchell, 2005:148).

Probability sampling was exercised whereby all members of the target population had a “higher than zero” chance of being included in the sample. Simple random sampling was done by numbering the target population candidates. Corresponding number tickets were put in a bag and mixed well. One number was taken from the bag at a time until the sample size was saturated. The corresponding numbered candidates were included in the pilot sample (Burns and Grove, 2007:330-331).

The first pilot study was done with a hard copy of the research instrument sent to a simple random selected sample of national students. This was done to ensure validity and reliability of the instrument. The research instrument and a return addressed envelope with paid postage were sent to the available address of the sampled members. The researcher made follow-up phone calls to each member's available telephone. A return rate of (5 = 28%) was recorded. The data was not included in the study. The respondents indicated spelling errors on the instrument which was corrected.

A second pilot study was done with an electronic version of the research instrument to include the international students and allow for a swift national and international in time response. Fricker and Schonlau (2002:355) support return delivery a time efficiency of Web based surveys. The electronic research instrument was prepared with assistance of a webmaster from the Stellenbosch University. Simple random sampling were applied to select the sample. An electronic mail was sent to the candidates to invite them to participate in the pilot study. On acceptance of participation, the electronic instrument was activated. A (6 = 32%) return rate was recorded. The data was not included in the actual study. Changes that were addressed were spelling errors and one item was rephrased to ensure clarity.

The two pilot studies were done with two different samples from the same target population and they were excluded from the final population.The pilot consisted of (n = 37/16%) participants of the actual main study with a 30% mean return rate. After the pilot studies were done the actual population for the study was 201 students.

3.5 RELIABILITY AND VALIDITY

Reliability relates to the outcomes credibility of a research study (Welman, Kruger and Mitchell, 2005:145). Burns and Grove (2007:552) define reliability as the “extend to which an instrument consistently measures a concept”. Reliability therefore relates to the measurement instrument to give unassailable results each time it is applied (Terre Blanche, Durrheim and Painter, 2011:152). Characteristics such as “dependability, consistency, accuracy and comparability” relate to reliability (Burns and Grove, 2007:365). Replication is one technique whereby instrument reliability can be tested. Replication is when another researcher repeats the study and similar findings as the first outcome were obtained (Welman, Kruger and Mitchell, 2005:145). Reliability of an instrument is not transferable as the outcome may differ according to populations. Reliability tests should be done on an instrument prior to statistical analysis (Burns and Grove, 2007:365). In this study a new instrument was developed and was tested with a hard copy pilot study and re-tested with an

electronic instrument pilot study. This is advised practice to ensure reliability of a new instrument (Welman, Kruger and Mitchell , 2005:148)..

Bias is described as an “influence or action in a study that distorts the findings or slants them away from the true or expected”. Several factors play in on bias and researchers may be unaware of bias in their study (Burns and Grove, 2007:531 and 238). As a measure to reduce bias of sample selection all respondents were allowed the opportunity for voluntary rejection or participation in the study. The research instrument was completed anonymously as an electronic response to the database.

The validity of an instrument is the measure of how well the instrument displays the abstract notion under study (Burns and Grove, 2007:365). According to Polit and Beck (2012:236 and 745) validity is a quality characteristic of a conclusion as accurate and well-substantiated; in measurement, it reflects the degree to which an instrument measures what it is intended to measure.

According to De Vos, Strydom, Fouche and Delport (2011:173) validity comprises of two aspects, namely that

- “ the instrument actually measures the concept in question”; and
- “ the concept is measured accurately.”

To support validity a literature supported research instrument was developed to meet the objectives of the research project. The designed research instrument for this study was validated by various experts such as a research expert, a statistician, a nurse educationist and a research methodologist. They inspected the instrument for face, content and construct validity. The instrument was tested as a hard copy and re-tested as an electronic version. In both tests similar response results were reported. To enhance representativeness in the results the whole of the target population was invited to participate. Different validation categories are described in literature. Face validity of an instrument reflects on whether by a mere glance at the instrument it gives the impression to measure the intended variables. Content validity refers to the degree to which the instrument portrays a comprehensive balanced image on the items to measure the concepts it is intended to on the subject under study. Face and content validity judgement on a research instrument can be made before data collection takes place (De Vos, Strydom, Fouche and Delport, 2011:173-174). According to Burns and Grove (2007:535) construct validity refers to the “measure of how well conceptual and operational definitions of variables match each other”. Dörnyei (2007:51) explained construct validity to be when test outcomes in research are consistent to a theory

of which the target hypothesis was a part. Criterion validity is established by comparing test relationships of other, but similar instruments (Dörnyei, 2007:51).

The outcomes from the two pilot studies served the purpose to test the instrument for reliability and validity and refine instrument items.

3.6 INSTRUMENTATION

The research instrument was an original study specific developed questionnaire. A questionnaire is a document implemented to collect self-reported data by means of self-administration questions (Polit and Beck, 2012:740). The purpose of a questionnaire is to "obtain facts and opinions about a phenomenon from people who are informed on the particular issue" (De Vos, Strydom, Fouche and Delport, 2011:186). Advantages of questionnaires are cost efficiency for geographical dispersing and large samples, offers anonymity which is essential to obtain frank responses and exclude interviewer bias (Polit and Beck, 2012:305). This study was done with an internet instrument to allow equal time access to international and national respondents.

Data was collected in two sections. Section A collected data on respondent demographics such as:

- age;
- gender;
- home language and
- marital status on commencement of study.

Section B collected data on. Factors related to the individual that influence throughput:

- Master's Degree in Nursing enrolment;
- highest tertiary qualification;
- time interval since last completed qualification;
- professional nurse experience;
- primary reason for studies;
- Master's Degree in Nursing completion;
- reasons for study discontinuation;
- effect of age to keep up;
- family and studies management;
- family support network;
- influence of studies on health;
- motivation at registration;

- Master's Degree in Nursing as first choice;
- previous success inspired continuation of studies;
- financial factors related to information, availability of funds and influence on studies;
- access to personal computer, word processing skills and influence of skills on studies;
- access to internet technology, internet research skills and influence of internet research skills on studies;
- influence of English proficiency;
- scientific writing and influence of lack of progress;
- keeping to time schedule;
- time of study as day or night time;
- influence of time(hours) spent on studies; and
- stress and coping behaviour.

Factors related to the Higher Education Institution and study programme that influence throughput:

- study guide and learning outcomes;
- availability of prescribed study material;
- satisfaction with course content;
- library resources;
- WebCT as communication instrument;
- lecturer access, feedback and communication;
- influence of lecturer mentoring on critical thinking skills;
- mature learner needs considered during academic support;
- attendance and value gained from face-to-face workshops and
- attendance and value gained from telematic broadcasts.

Factors related to the employer and employment that influence throughput:

- employment status on commencement;
- workplace support network during studies;
- employer support as study permission, permitted on duty research time, financial assistance;
- employer allowed flexi-hours to accommodate studies;
- operational needs required overtime work;
- expected service hours and influence thereof on studies and
- employer validation of Master's Degree.

The questionnaire consisted of predominantly closed-ended questions. The majority of questions allowed for one choice on a four optioned rating Likert scale, where 4 = strongly agree, 3 = agree, 2 = disagree and 1 = strongly disagree. A Likert scale is a "composite measure of attitudes involving the summation of scores on asset of items that respondents rate for their degree of agreement or disagreement" (Polit and Beck, 2012:732). Five dichotomous questions were included where respondents were required to make a choice between two alternatives for example yes or no. Dichotomous questions allow factual data collection between two alternatives (Polit and Beck, 2012:298). Seven multiple-choice questions with, at least three alternatives, were included to obtain more specific response information on the studied variable. Completion of closed-ended questions is time efficient and assists respondents with limited expression abilities. Closed-ended questions sometimes require responses from alternatives with which respondents do not fully agree and questions also lack a comprehensive viewpoint on the studied variable (Polit and Beck, 2012:298).

The six open-ended questions allowed respondents factual individualized numerical responses such as years of experience and allowed personal views on the stated question. Open-ended questions enhance perspectives on the studied subject (Polit and Beck, 2012:298).

The design of the instrument allowed compulsory questions such as, "Did you complete your Master's Degree?", pending the selected response, respondents were automatically guided continuation to the next following question that fitted the response. This option in the instrument contributed to respondents only responding to their specific response to give more information. The automatic guide contributed to reduce omitted and skipped responses.

Table 3.1: Summary of questionnaires sent and response rate

Action	Number	%
Questionnaires sent	201	100
Total accepted participation, completion and return	46	23

3.7 DATA COLLECTION

Data collection is the accurate, systematic gathering of information relevant to the research purpose or objectives of a study. Numerical data is typical to quantitative studies (Burns and Grove, 2005:42).

Data collection was done with an English self-administered electronic questionnaire and automatically returned to the electronic survey data pool at the Stellenbosch University on submission of the completion. Completion time was approximately 30 minutes. An e-mail

invitation to participate in the study was sent to subjects. A short introduction was given on the purpose and importance of participation. Subjects were informed on anonymity, confidentiality and their voluntary participation in the study. Declining the opportunity was explained that it would not be to their detriment. Implied consent was explained in that when subjects participate they would have agreed to participation. Implied consent is described as "consent to participate in a study that a researcher assumes has been given based on participants' actions, such as returning a completed questionnaire." (Polit and Beck, 2012:730).

All subjects who met the criteria regarding enrolment between 2004 and 2010 with verifiable e-mail addresses were included in the study sample. The data collection took place in August 2011. The researcher monitored the process. The researcher's contact details were available on the invitation on which 6 reported difficulty with information technology to access the study. The researcher followed the feedback up with the web-master and came to the conclusion that network and browser barriers precluded the six subjects' participation. Fricker and Schonlau (2002:357) support the notion that respondents on internet surveys may experience the barrier of information technology that is not compatible with the software and hardware of the survey. The researcher sent two reminders and one final reminder e-mail message to candidates that did not decline the invitation to participate. Cook, Heath and Thompson (2000:833) support that increased contact with potential respondents links with higher response rates.

A return rate of (n = 46/23%) was recorded. In resent years response rates on e-mail surveys tend to decrease since the onset of e-mail surveys in 1986. The reviewed literature showed that two e-mail studies were done in 2000 and 24% mean response rate was reported (Sheehan, 2001:7). One explanation for the decreasing response rate is the increase of undesirable e-mails to Internet users. Users therefore handle undesirable e-mails by deleting them without reading them (Sheehan, 2001:10). According to Fricker and Schonlau (2002:365) researchers are challenged to "distinguish themselves and their surveys from the plethora of commercial and entertainment surveys" on the Web. Low response rates are the norm for mailed questionnaires and have a risk for bias (Polit and Beck, 2012:311). Representative bias was counteracted in this tudy in that all of the target population was invited to participate. Two respondents declined participation. The electronic system allowed automatic electronic data capturing. The automatic captured data was archived in the access controlled electronic data surveys pool of Stellenbosch University.

3.8 DATA ANALYSIS

Statistical analysis of quantitative data comprises simple and complex procedures (Polit and Beck, 2012:60). Analysis of quantitative research data comprises of “descriptive and exploratory procedures”, “statistical techniques to test proposed relationships”, “techniques to make predictions” and “analysis techniques to examine causality” (Burns and Grove, 2005:43).

Data capturing is prone to error and need to be cleaned to identify outliners and wild codes (Polit and Beck, 2012:465). In this study gathered data was automatically stored in the Stellenbosch University survey data pool. The researcher did the systematic coding of the quantitative data during the development of the electronic instrument. Prior to implementation of the instrument the webmaster inspected the coding of variables for clarity and consistency. Open-ended question responses were not coded. Open-ended question responses were analysed as unstructured data according to the investigated themes on factors related to the individual, factors related to the Higher Education Institution and programme and factors related to the employer.

Data preparation was an automatic outcome of the completion of the electronic instrument. Data was screened by the researcher and the statistician. Response values to one open-ended question were observed to be inconsistent. Several outliers were observed. The value of the variable was not central to the study and was therefore deleted from the analysis (Polit and Beck, 2012:465 and 467).

The results of the responses on the four optioned rating Likert scale, where 4 = strongly agree and 3 = agree were collapsed to an agree result and 2 = disagree and 1 = strongly disagree were collapsed to a disagree result. This consideration was to accentuate the response result.

The data results showed little missing data because the instrument design curtailed respondents to skip questions. The data results on skipped questions were recorded with the smaller response number. The identified missing values were missing completely at random. Missing completely at random values pattern refers to missing data that does not reflect a relation to the variable – it happened unintentional (Polit and Beck, 2012:466). Three open-ended and three closed-ended questions were affected. The analysis of such question results was adapted to the smaller response.

The data gathered in this study was analysed with the assistance of a statistician. Descriptive data analysis, for statistical significance between variables, using a 95% confidence interval,

was performed. Results are conveyed in tables. Data analysis was done utilizing the following statistical tests.

3.8.1 Mean

Mean is a measure of central tendency whereby an average of all scores is obtained. A disadvantage is that an extreme score can skew the measure (Dörnyei, 2007:214).

3.8.2 Kruskal-Wallis test

It is a nonparametric test used to test the difference between three or more independent groups, based on ranked scores (Polit and Beck, 2012:732).

3.8.3 Spearman's rank-order correlation (Spearman's rho)

This refers to a correlation coefficient indicating the magnitude of a relationship between variables measured on the ordinal scale (Polit and Beck, 2012:743).

3.9 ETHICAL CONSIDERATIONS

Prior to commencement approval to conduct this study was obtained from the Human Research Ethics Committee, Faculty of Medicine and Health Sciences, Stellenbosch University.

The invitation for participation informed subjects on the research purpose and their right to decline participation without negative implications on their choice. Subjects were informed on implied consent on completion of the questionnaire.

In this study the respondent's rights were honoured in that participation was voluntary and anonymous. Privacy and confidentiality were ensured by the completion of unidentified electronic questionnaires that were returned to the access controlled surveys data pool of the Stellenbosch University. Respondents who declined participation were respected for their choice and no reminder messages were sent. The electronic instrument allowed respondents response freedom without being recognized by handwriting or place of location.

Polit and Beck (2012:172) describe ethical conduct as more than adherence to safeguarding the subject's human rights. Researcher integrity is emphasized to preserve high levels of personal integrity as researcher and steer clear of research misconduct such as "plagiarism, fabrication of results or falsification of data". Dörnyei (2007:67) adds to researcher integrity that researchers should refrain from misrepresenting findings or conclusions. They should also not on purpose or by negligence take advantage of their positions for "fraudulent purposes". Findings should be reported in a transparent manner to all relevant stakeholders. Researchers should refrain from selective or secretive communication on research results. In

this study the researcher tabled the questionnaire to the statistician, the Human Research Ethics Committee, and the research and subject specialist to scrutinize it for possible ethical dilemmas. Permission was obtained from the university under study to utilize their data on enrolment for a Master's Degree in Nursing between 2004 and 2010 as the study population. The statistician utilized electronic software to ensure accurate calculation on statistical tests.

3.10 CONCLUSION

In this chapter, the research methodology was described with clear descriptions on the steps the researcher applied in the research process.

In chapter 4, the data analysis, interpretation of the data and related discussions of the research results are presented.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION OF RESULTS

4.1 INTRODUCTION

The aim of the study was to identify factors that influence throughput of Master's Degree Nursing students at a university in South Africa. In this chapter, the analyses of the data obtained from the research are presented in tables, histograms and frequencies and interpreted and discussed. The data was analysed with the support of a statistician, using computerized data analysis software, namely the STATISTICA Version 10, 2011 programme. The data is presented in a quantitative form. Open question responses were analysed qualitatively and quantified in common themes.

The study population comprised of diverse mature postgraduate nursing students with multiple roles. Several factors challenged these students during their Master Degree studies.

4.2 DESCRIPTION OF STATISTICAL ANALYSIS

The detailed description of the statistical analysis and processing tests were described in chapter 3.

4.3 SECTION A

4.3.1 Variable A1: Age

The response rate to this question was (n = 45/100%). The mean age was 42 years. The minimum age was 26 years and the maximum age was 55 years. The majority of respondents (n = 26/58%) were in the 40 to 49 years age group (table 4.1). The average age of this Master's Degree in Nursing population reflected an older student to that of the average age of 34 years of a South African Master Degree student (CHE, 2009:xxii).

Table 4.1: Age range of participants

Age in year =	n = 45	%
20-29	4	9
30-39	9	20
40-49	26	58
50-59	6	13

4.3.2 Variable A2: Gender

The majority of the respondents were female (table 4.2). There was a large disparity between female (n = 45/98%) and male (n = 1/2%) respondents. The data support the concept that the nursing profession is still a female dominant profession (Romem and Anson, 2005:173).

Table 4.2: Gender

Gender	n = 46	%
Female	45	98
Male	1	2

4.3.3 Variable A3: Home language

Afrikaans speaking (n = 25/54%) respondents accounted for the majority of responses (table 4.3). The English home language speakers represented the second largest population (n = 16/35%). The minority representation were from Xhosa speaking (n = 3/7%), Tswana speaking (n = 1/2%) and Kiswahili mother tongue speakers (n = 1/2%).

English is the language specification for a Master's Degree in Nursing at the Higher Education Institution under study (Stellenbosch University Faculty of Medicine and Health Sciences Yearbook, 2012:95). The majority of the population (n = 30/65%) conducted their studies in English which is not their home language. English is supported as an international language of scientific communication (Altbach, Reisberg and Rubley, 2009:3).

Table 4.3: Home language

Home language	n = 46	%
Afrikaans	25	54
English	16	35
Kiswahili	1	2
Tswana	1	2
Xhosa	3	7

4.3.4 Variable A4: Marital status on commencement of studies

According to table 4.4 the majority of respondents were married (n = 25/54%). The second largest group was single (n = 11/24%), while divorced or separated respondents represented the third highest group (n = 7/15%). The solo status of either being a widow, divorced/separated or single represented 41% (n = 19) respondents in this population.

Table 4.4: Marital status on commencement

Response	n = 46	%
Divorced/separated	7	15
Life partner	2	4
Married	25	54
Single	11	24
Widow	1	2

4.4 SECTION B

4.4.1 Variable B1: Indicate your enrolment for the Master's Degree in Nursing

Enrolment for a structured Master's Degree accounted for (n = 36/78%) respondents, while a research Master's Degree enrolment indicated (n = 10/22%) respondents (table 4.5).

Table 4.5: Master's Degree enrolment

Enrolment	n = 46	%
Research Master's Degree	10	22
Structured Master's Degree	36	78

4.4.2 Variable B2: Indicate your highest tertiary qualification in nursing on commencement of the Master's Degree programme

Table 4.6 shows that the majority of respondents (n = 20/43%) held a Postgraduate Diploma or Advanced Diploma in Nursing at the time of embarking on their studies towards a Master's Degree in Nursing.

Respondents (n = 17/37%) who held a Postgraduate Degree in Nursing ranged second in responses. It is a concern to researchers that the development of future academics does not receive the attention it deserves (Koen, 2007:49). This concern is supported in this study in that only 15% respondents (n = 7) held an Honours Degree in Nursing.

The academic admission criteria to enrol for a Master's Degree in Nursing requires a basic four-year diploma in nursing qualification or the comparable thereof and a minimum of an additional one-year postgraduate tertiary qualification (Stellenbosch University Faculty of Medicine and Health Sciences Yearbook, 2012:94).

Table 4.6: Highest tertiary qualification on commencement of Master's Degree

Highest qualification	n = 46	%
Bachelors Degree Nursing	2	4
Honours Degree Nursing	7	15
Advanced Diploma Nursing	20	43
Postgraduate Nursing Degree	17	37

4.4.3 Variable B3: Indicate the time interval in full numerical years between your last completed qualification/formal education programme and the year you commenced your Master's Degree

Only 45 responses were recorded on this question (table 4.7). The majority of respondents (n = 24/53%) reported a 1 to 5 year time interval between their last completed qualification and commencement of the Master's Degree. The second highest time interval between previous studies and Master's Degree studies was for the 11 to 15 years (n = 9/20%) followed by the 6 to 10 years (n = 6/13%) interval. Four respondents had no time interval between prior completed study and commencement of a Master's Degree (n = 4/9%). The ages of two of these respondents were respectively 24 and 26 years. The other two respondents were aged 37 and 48 years representing an older student who completed postgraduate studies prior to commencement of Master Degree studies.

The lowest response was for time intervals, 16 to 20 years and 21 and 25 years with only one response in each interval (n = 1/2%). The Spearman Rank Order Correlation indicated a significant correlation between the time interval between the last completed qualification and the commencement of Master Degree studies (Spearman p-value <0.02).

A short time lapse of less than 5 years between studies is supported to be a good predictor of academic success (Agbonlaho and Offor, 2008:183 and 185).

Table 4.7: Time interval between last completed qualification and Master's Degree commencement

Time interval	n = 45	%
0 years	4	9
1-5 years	24	53
6-10 years	6	13
11-15 years	9	20
16-20 years	1	2
21-25 years	1	2

4.4.4 Variable B4: Indicate your employment status during the time of your studies

Public service employees represented the majority of respondents (n = 24/52%) whilst the private employees represented (n =12/26%) of the respondents (table 4.8).

Table 4.8: Employment status during studies

Employment status	n = 46	%
Employed public sector	24	52
Employed private sector	12	26
Self-employed	1	2
Employed outside South Africa	9	20

4.4.5 Variable B5: Indicate the number of years as a professional nurse on commencement of the Master's Degree studies

The majority of respondents (n = 24/52%) had 1 to 20 years experience followed by (n = 22/48%) respondents with 21 to 40 years experience. The statistical calculated mean for years of experience as a professional nurse among the respondents is 19 years.

Experienced professional nurses with 21 to 40 years experience constituted for (48%) of respondents (n = 22/48%). If the mean age (42 years) of the respondents is considered, it reflects that the preparation of future academics is not a priority (Koen, 2007:49).

Table 4.9: Years registered as professional nurse on commencement of Master's Degree

Registered years	n = 46	%
1-5	7	15
6-10	1	2
11-15	7	15
16-20	9	20
21-25	11	24
26-30	7	15
31-35	2	4
36-40	2	4

4.4.6 Variable B6: Select the primary (one main) reason why you registered for the Master's Degree in Nursing

The highest indicator to embark on Master Degree studies was the desire to access future career posts (n = 25/54%) followed by the compliance to present post requirements (n = 6/13%) (table 4.10). Respondents also indicated their engagement in Master Degree studies as past time (n = 5/11%) or as a personal development/goal (n = 4/9%). This personal initiative to achieve is supported by Maslow's Motivation Theory and the Cognitive Evaluation Theory of internal motivation (Boeree, 2006:4; Ryan and Deci, 2000:58).

Employer initiative to support human resource development was responsible for only (n = 2/4%) responses to enrol for Master Degree studies. Pellitier, Donoghue and Duffield (2005:41-42) support employer support to workforce study needs.

Table 4.10: Primary reason to register for Master's Degree

Reason	n = 46	%
Compliance to present post/policy	6	13
Employer offered opportunity	2	4
Financial benefit	1	2
Future career post	25	54
Past time	5	11
Personal goal	2	4
Self development/enrichment	4	9
Status	1	2

4.4.7 Variable B7: Did you complete your Master's Degree in Nursing

The population in this study comprised of all students enrolled for the Master's Degree in Nursing between 2004 and 2010 at the university under study. Many respondents had multiple registrations during this period but such students were counted once only for this study period.

The majority of partaking respondents (n = 25/54%) indicated that they did not complete their studies (table 4.11). Of this group (n = 16) are currently registered students and (n = 9) respondents left the programme (table 4.12).

Table 4.11: Did you complete your Master's Degree?

Response	n = 46	%
No	25	54
Yes	21	46

Table 4.12: Respondents who responded not to have completed their studies

Response	n = 25	%
Discontinued studies for the Master's Degree	9	36
Currently registered for the Master's Degree	16	64

4.4.8 Variable B8: Identify all your reasons why you did not continue, finish the course

All respondents who indicated "no" on completion of their Master Degree (variable B7, table 4.11) were allowed an opportunity to indicate why they did not complete. The majority (n = 16/64%) of the non-completing respondents indicated that they were "currently registered for

the Master Degree" (table 4.12). The respondents (n = 9/36%) (table 4.12) who discontinued their studies indicated their reasons for non-completing as shown in table 4.13.

The primary reason for non-completion was a lack of a support network (n = 7/19%). Families and husbands were reported as the most important social support to students, but for unmarried women social support was less than for her married counterpart (Lo, 2002:124 and Kaminski, 2001:5).

Communication barriers with academic staff (n = 6/16%) and family responsibilities (n = 6/16%) accounted for the second highest response.

Table 4.13: All the reasons for not completing Master's Degree (completed by the 9 respondents who left the programme)

Response options	Responses = 37	%
Communication barrier with Higher Education Institution	6	16
Employer service demands	4	11
Study demands of part-time study	3	8
Family responsibility	6	16
Financial barrier	3	8
Health factors	0	0
Inefficient time management	2	5
Lack of support network	7	19
Lack of computer skills	0	0
Lack of motivation	3	8
No study leave	2	5
Underdeveloped scientific writing skills	1	3

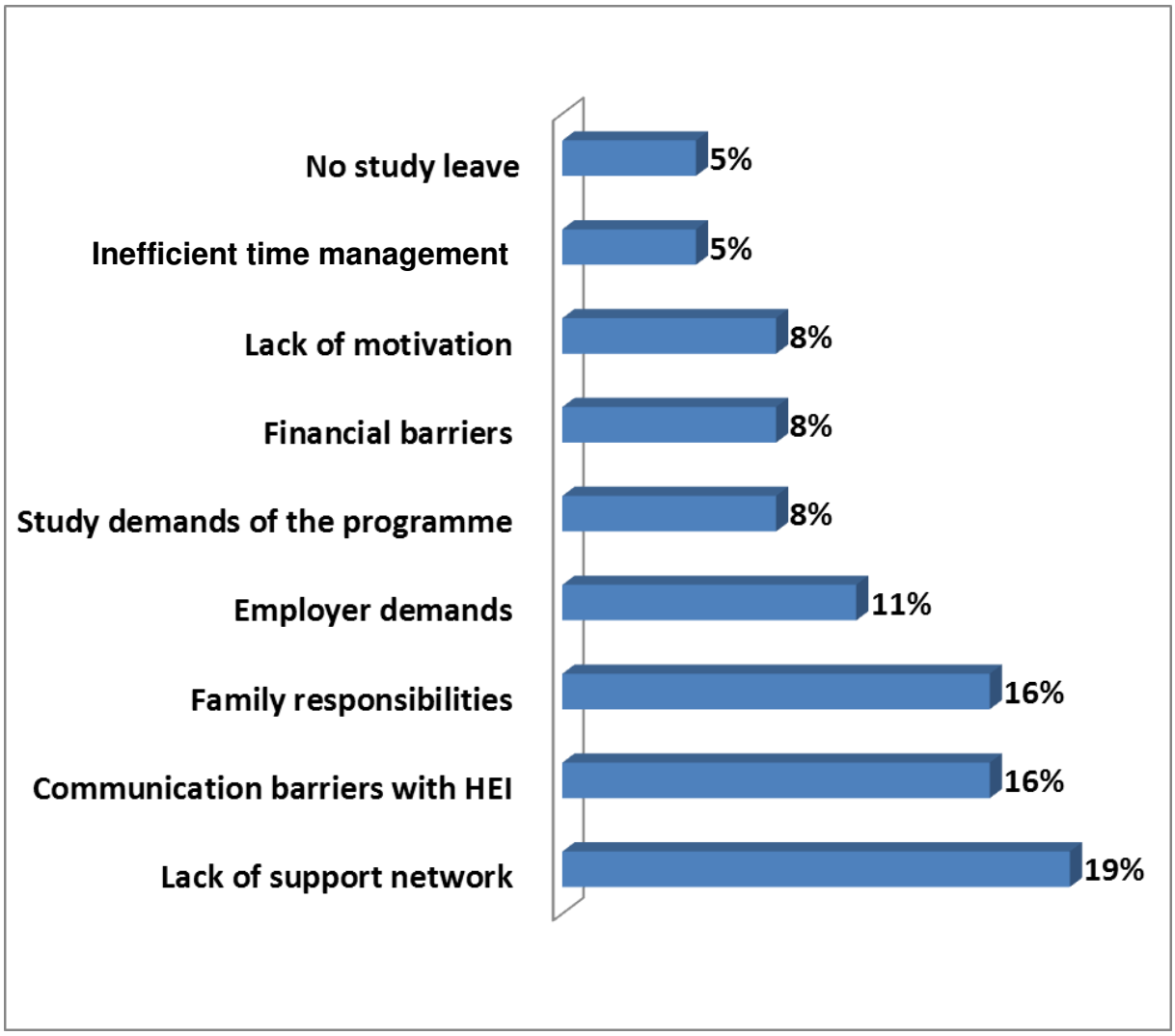

Figure 4.1: Main reasons for leaving Master's Degree studies

4.4.9 Variable B9: My age has no effect on my ability to keep up with the demands of my studies

The majority of respondents (n = 37/80%) did not regard their age as a barrier to keeping up with study demands. Age was however a barrier to (n = 9/20%) of respondents (table 4.14).The majority of respondents (n = 26/58%) were in the 40 to 49 years age group (table 4.1). Newman-Ford, Lloyd and Thomas (2009:21) described that best performance is between the ages 36 to 40 years with a decline in performance between ages 50 and 55 years.

Table 4.14: My age has no effect on my ability to keep up with the demands of my studies

Response	n = 46	%
Disagree	9	20
Agree	37	80

4.4.10 Variable B10: It was easy to manage family life and studies

The management of family life and studies were a challenge to the majority of respondents (n = 30/65%) as it was not easy to manage family and studies. Fractitionally more than a third (n = 16/35%) of respondents did not have family as a challenge during their studies (table 4.15). Miller and Rector (2002:339) supported family responsibilities being a barrier to engage in studies.

The majority of respondents were females (n = 45/98%) (table 4.2). Female students in particular reported challenges in balancing studies with their parental and family responsibilities (Williams and Decker, 2009:82). Toth (2005:367-368) supported the foresaid in that it is an accepted norm that females have more household responsibilities than males.

Results indicated a statistical significant difference between that it was easy to manage family life and studies and the variable of marital status on commencement of studies (Wallis Kruskal p-value = 0.03).

Table 4.15: It was easy to manage family and studies

Response	n = 46	%
Disagree	30	65
Agree	16	35

4.4.11 Variable B11: I have an effective personal support network in my family during my studies

According to table 4.16 family support was effective for the majority of respondents (n = 37/80%). Referring to table 4.4 the majority of respondents were married (n = 25/54%), while the solo status denoted (n = 19/41%) of the respondents of either being a widow, divorced/separated or single.

Family and spouse support were indicated the most important social support by students (Lo, 2002:124)). Unmarried women however reported less support than married women (Kaminski, 2001:5).

Table 4.16: I have an effective personal support network in my family during my studies

Response	n = 46	%
Disagree	9	20
Agree	37	80

4.4.12 Variable B12: My health was negatively influenced by the demands of my studies

The majority of respondents disagreed (n = 35/76%) (table 4.17) that their health was negatively influenced by the demands of their studies. Nearly one in four agreed (n = 11/24%) that their studies had a negative influence on their health.

Table 4.17: My health was negatively influenced by the demands of my studies

Response	n = 46	%
Disagree	35	76
Agree	11	24

4.4.13 Variable B13: My workplace support network was a positive driving force of encouragement during my studies

Merely a third of respondents were satisfied that they had a positive support network at their workplace (n = 15/33%) (table 4.18). Respondents (n = 31/67%) indicated their workplace network to be a non-supporting factor during their studies. Walters and Koetsier (2006:106) raised a supporting concern in that the lack of workplace support may trigger students to leave the programme.

Table 4.18: My workplace support network was a positive driving force of encouragement during my studies

Response	n = 46	%
Disagree	31	67
Agree	15	33

4.4.14 Variable B14: I was well motivated on registration in the programme

All respondents (n = 46/100%) were well motivated on commencement (table 4.19). Intrinsic motivation was reported to be higher in students who register for specialist programmes than in students in general programmes (Adcroft, 2010:11 and 17).

Table 4.19: I was well motivated on registration in the programme

Response	n = 46	%
Disagree	0	0
Agree	46	100

4.4.15 Variable B15: The Master's Degree in Nursing was my first choice to further my career

Master's Degree studies was without doubt the first choice to the majority (n = 39/85%) of respondents (table 4.20). Only (n = 7/15%) respondents indicated that Master Degree studies was definitely not their first choice. Professional and career development is a motivation for continuous education (Hardwick and Jordan, 2002:527).

Table 4.20: The Master's Degree in Nursing was my first choice to further my career

Response	n = 46	%
Disagree	7	15
Agree	39	85

4.4.16 Variable B16: My success in previous studies inspired me to continue my studies

Respondents agreed (n = 45/98%) that they were inspired by previous academic success to continue their studies (table 4.21). Agbonlaho and Offor (2008:185) supported that previous study performance is a significant predictor of success for the present study programme.

Table 4.21: My success in previous studies inspired me to continue my studies

Response	n = 46	%
Disagree	1	2
Agree	45	98

4.4.17 Variable B17: I was well informed of the financial requirements of my studies

The agreed (n = 34/74%) response accounted for the highest response on being well informed on the financial requirements of studies (table 4.22). The disagreed (n= 12/26%) response indicated that more than a quarter of respondents indicated to have had insufficient information on financial requirements (table 4.22). Glogowska, Young and Lockyer (2007:68-69) stated that finance was in all probability the variable that had undesirable associations with other stressors. Students tended to miscalculate and underestimate the cost of studies due to insufficient information.

Table 4.22: I was well informed of the financial requirements of my studies

Response	n = 46	%
Disagree	12	26
Agree	34	74

4.4.18 Variable B18: I had adequate financial support for the total expenses of my studies

Respondents who agreed to have sufficient finances for study expenses represented the majority responses (n = 25/54%), while those with insufficient financial support constituted for (n = 21/46%) of responses (table 4.23). All respondents (n = 46/100%) were employed (table 4.8). It is therefore a concern that just more than half (n = 25/54%) of the respondents indicated to have had sufficient financial resources during their studies. Devlin, James and Grigg (2008:115-116) supported the outcome of the study in that they raised the concern that finances were a constraint particularly to employed students.

Table 4.23: I had adequate financial support for the total expenses of my studies

Response	n = 46	%
Disagree	21	46
Agree	25	54

4.4.19 Variable B19: Financial costs had no negative influence on my studies

Financial costs was agreed not to have a negative influence on studies of the majority (n = 32/70%) of respondents (table 4.24). Finances did have a negative effect on studies of nearly a third of respondents (n = 14/30%) (table 4.24). Quinn, Thomas, Slack, Casey, Thexton and Noble (2005:30) supported finances to be a reason why students discontinue studies.

Table 4.24: Financial costs had no negative influence on my studies

Response	n = 46	%
Disagree	14	30
Agree	32	70

4.4.20 Variable B20: Access to a personal computer was not a barrier during my studies

Access to a personal computer was not a problem to the majority of respondents (n = 37/80%), but was a challenge to (n = 9/20%) respondents (table 4.25). Access to information technology is often curtailed by the high cost thereof (Fozdar and Kumar, 2007:2).

Table 4.25: Access to a personal computer was not a barrier during my studies

Response	n = 46	%
Disagree	9	20
Agree	37	80

4.4.21 Variable B21: My computer skills in word processing were sufficient for my study needs

Computer skills in word processing were sufficient for the study needs of the majority of respondents (n = 41/89%) (table 4.26), while (n = 5/11%) respondents disagreed that their computer skills were sufficient for their study needs.

Results showed a significant difference between the variable "access to a personal computer was not a barrier during studies" and the variable "my computer skills in word processing were sufficient for my study needs" (Spearman Rank Correlation p-value = 0.01)

Table 4.26: My computer skills in word processing were sufficient for my study needs

Response	n = 46	%
Disagree	5	11
Agree	41	89

4.4.22 Variable B22: I had no barriers to access internet technology

Access to the internet was not a problem for the majority of respondents (n = 36/78%) (table 4.27). Access was a barrier to (n = 10/22%) respondents. Gaskell (2006:95) supported residential internet access being a barrier to students.

Table 4.27: I had no barriers to access internet technology

Response	n = 46	%
Disagree	10	22
Agree	36	78

4.4.23 Variable B23: My internet search skills were sufficient for my study needs

Although the majority of respondents agreed (n = 35/76%) to have sufficient internet search skills for study purposes, nearly a quarter of the respondents (n = 11/24%) indicated their internet search skills to be inadequate (table 4.28).

Table 4.28: My internet search skills were sufficient for my study needs

Response	n = 46	%
Disagree	11	24
Agree	35	76

4.4.24 Variable B24: My computer skills had no negative influence on my studies

The majority of respondents agreed (n = 38/83%) that their computer skills did not have a negative effect on their studies (table 4.29). The response contradicted the outcome whereby students in a Master Degree in the nursing programme indicated computer utilisation a challenge (Whyte, Lugton and Fawcett, 2000:1077). The majority of respondents in this study are from the younger generations, 40-49 years (n = 26/58%) and 20-39 years (n = 13/29%) (table 4.1). The majority of respondents represent the Millennials (Born 1982-2002) and Generation X-ers (Born 1961- 1981) and these students are familiar with information technology (Johnson and Romanello, 2005:213).

Table 4.29: My computer skills had no negative influence on my studies

Response	n = 46	%
Disagree	8	17
Agree	38	83

4.4.25 Variable B25: My studies was not influenced by my proficiency in English

The majority of respondents agreed (n = 36/78%) that their proficiency in English had no influence on their studies. It is however a concern that (n = 10/22%) respondents indicated English proficiency a challenging influence on their studies (table 4.30). This concern may cause students to drop out. Although English is supported as the primary language for

international scientific interaction, English proficiency was endorsed as a predictor of performance (Altbach, Reisberg and Rublyey, 2009:3; Sandiford and Jackson, 2003:11).

Table 4.30: My studies was not influenced by my proficiency in English

Response	n = 46	%
Disagree	10	22
Agree	36	78

4.4.26 Variable B26: I managed the skill of scientific writing with minimum guidance from my study leader

The management of scientific writing was indicated as a barrier to (n = 17/37%) respondents in table 4.31. Scientific writing was assessed not to be a barrier to (n = 29/63%) respondents as they could manage the skill with little guidance from supervisors. Whyte, et al., (2000:1078) supported the challenge Master's Degree nursing students experience with performance in writing skills.

Table 4.31: I managed the skill of scientific writing with minimum guidance from my study leader

Response	n = 46	%
Disagree	17	37
Agree	29	63

4.4.27 Variable B27: The lack of noticeable progress in my scientific writing skills, despite major input, effort, guidance and time, had a negative influence on the continuation of my studies

According to table 4.32 a third of respondents (n = 15/33%) acknowledged that the lack of progress in managing scientific writing skills had an adverse influence on their studies to the extent that it influenced their continuation of the programme. Although more respondents (n = 17/37%) (table 4.31) indicated that they were challenged in terms of scientific writing skills, only (n = 1/3%) (table 4.13) indicated inadequate scientific writing skills as a reason to discontinue studies. Kaminsky (2001:1) supported this notion in that students who struggle to manage scientific writing tend to discontinue their studies.

Table 4.32: The lack of noticeable progress in my scientific writing skills, despite major input, effort, guidance and time, had a negative influence on the continuation of my studies

Response	n = 46	%
Disagree	31	67
Agree	15	33

4.4.28 Variable B28: I kept to my planned study schedule even if I needed to adjust it from time to time

The majority of respondents (n = 25/54%) managed to keep to their study schedule, while (n = 21/46%) were challenged to keep to their study schedules (table 4.33). Glogowska, Young and Lockyer (2007:67) supported time management as a challenge to employed students.

Table 4.33: I kept to my planned study schedule even if I needed to adjust it from time to time

Response	n = 46	%
Disagree	21	46
Agree	25	54

4.4.29 Variable B29: I spent most of my study time as night hours, with reduced sleep time

Respondents mostly utilized night-time to study as this time of the day constituted for (n = 32/70%) of responses. Night-time was not the primary study time to (n = 14/30%) of respondents (table 4.34).

Table 4.34: I spent most of my study time as night hours with reduced sleep time

Response	n = 46	%
Disagree	14	30
Agree	32	70

4.4.30 Variable B30: I spent most of my study time as day light time between sunrise and sunset with reduced leisure time

Studies during day light time as primary study time constituted for (n = 23/50%) of respondents (table 4.35). Respondents who mostly utilized night-time for studies were more (n = 32/70%) (table 4.34) than the respondents who mostly utilized day time for studies (n = 23/50%) (table 4.35). Therefore it can be derived that one in five respondents (n = 9/20%) utilized both day and night time as primary study time.

Table 4.35: I spent most of my study time as day light time between sunrise and sunset with reduced leisure time

Response	n = 46	%
Disagree	23	50
Agree	23	50

4.4.31 Variable B31: The number of hours (time) I utilized for studies had a negative influence on my motivation to continue my studies

Respondents stayed motivated despite the time demands of their studies. Respondents disagreed (n = 32/70%) that the time their studies required had a negative influence on their motivation to continue studies (table 4.36). It is however a concern that nearly a third of respondents (n = 14/30%) indicated the time spent on studies as a factor of demotivation.

Quinn, et al. (2005:20) supported the notion that students associated part-time study with excessive time input.

Table 4.36: The number of hours (time) I utilized for studies had a negative influence on my motivation to continue my studies

Response	n = 46	%
Disagree	32	70
Agree	14	30

4.4.32 Variable B32: When I was stressed due to study requirements, I tended to avoid the supervisor

Respondents disagreed (n = 33/72%) that they tended to avoid supervisors when they were stressed (table 4.37). Just more than one in four respondents (n = 13/28%) acknowledged that they avoided supervisors when they experienced study stress. Stack (2008:15) supported the supervisor to be a stress reliever to students.

Table 4.37: When I was stressed due to study requirements, I tended to avoid the supervisor

Response	n = 46	%
Disagree	33	72
Agree	13	28

4.4.33 Variable B33: I coped well with my study load

The majority of respondents agreed (n = 34/74%) to have coped well, but more than a quarter of respondents disagreed (n = 12/26%) to have coped well with their study load (table 4.38).

Table 4.38: I coped well with my study load

Response	n = 46	%
Disagree	12	26
Agree	34	74

4.4.34 Variable B34: When I was stressed due to study requirements, I tended to take stimulants such as caffeine

Respondents who took stimulants such as caffeine during stressed times accounted for just about a third of the respondents (n = 15/33%). Malinauskas, Aeby, Overton, Carpenter-Aeby and Barber-Heidal (2007:6) endorsed increased caffeine intake by students when studying. The majority of respondents however (n = 31/67%) disagreed that they took stimulants due to study stress (table 4.39).

Table 4.39: When I was stressed due to study requirements, I tended to take stimulants such as caffeine

Response	n = 46	%
Disagree	31	67
Agree	15	33

4.4.35 Variable B35: When I was stressed due to study requirements, I tended to indulge in poor life style habits for example smoke cigarettes

More than three quarters of respondents (n = 36/ 78%) denied that they indulged in poor life style habits such as smoking cigarettes during study stress (table 4.40). Ten respondents (n = 10/22%) however admitted to have taken to smoking cigarettes when they were stressed (table 4.40). Smoking of cigarettes is used to handle stress, but researchers did not support the smoking of cigarettes as a coping mechanism as there was no "significant increase" during stressful times (Sun, Buys, Stewart, Shum and Farquhar, 2011:122; Kuhn, Kranz, Koo, Cossio, and Lund, 2005:3).

Table 4.40: When I was stressed due to study requirements, I tended to indulge in poor life style habits for example smoke cigarettes

Response	n = 46	%
Disagree	36	78
Agree	10	22

4.4.36 Variable B36: When I was stressed due to study requirements, I tended to take analgesics such as Paracetamol

Taking analgesics served to cope with performance stress related to daily circumstances of students (Hansen, Hansen and Holstein, 2008:237). In this study respondents (n = 38/83%) did not opt to take analgesics to cope with study stress (table 4.41). A minority of respondents (n = 8/17%) utilized analgesics as a stress coping tool.

Table 4.41: When I was stressed due to study requirements, I tended to take analgesics such as Paracetamol

Response	n = 46	%
Disagree	38	83
Agree	8	17

4.4.37 Variable B37: During my studies my coping behaviour, for example decreased sleeping time, had a negative influence on my general health

In this study respondents disagreed (n = 31/68%) that their health was negatively influenced by their coping behaviour during studies (table 4.42). Nearly a third of respondents (n = 15/32%) did however indicate that their coping behaviour during studies had a negative

influence on their health. According to Glogowska, Young and Lockyer (2007:67) poor health during studies is a decisive factor in terminating studies.

Table 4.42: During my studies my coping behaviour, for example decreased sleeping time, had a negative influence on my general health

Response	n = 46	%
Disagree	31	68
Agree	15	32

4.4.38 Variable B38: During my studies my coping behaviour had a negative influence on my studies

Respondents (n = 36/78%) indicated that their coping behaviour did not have a negative influence on their studies (table 4.43). On the contrary, just more than a fifth of respondents (n = 10/22%) acknowledged that their coping behaviour had a negative impact on their studies.

Table 4.43: During my studies my coping behaviour had a negative influence on my studies

Response	n = 46	%
Disagree	36	78
Agree	10	22

4.4.39 Variable B39: The university yearbook supplied sufficient information regarding Master's Degree in Nursing. It allowed me to be well aware of what is expected during studies

The yearbook is the official information document of Higher Education Institutions to communicate essential information on study programmes to potential students. According to table 4.44 the majority response agreed (n = 29/73%) that the information in the yearbook of the university under study was sufficient for their needs. More than a third of respondents (n = 17/37%) however evaluated the information as insufficient.

Table 4.44: The university yearbook supplied sufficient information regarding Master's Degree in Nursing. It allowed me to be well aware of what is expected during studies

Response	n = 46	%
Disagree	17	37
Agree	29	73

4.4.40 Variable B40: Specify any comments regarding information in the yearbook that need revisiting to address your answer

An open-ended question allowed respondents the option to comment on needs to be included in a future yearbook. Only 8 respondents gave their input.

The majority (n = 3) response was that students did not receive a general yearbook as shown in table 4.45. Suggested changes were: to have access to the yearbook prior to commencement (n = 1) and a clearer distinction between dissertation and structured Master's Degree (n = 1). It was suggested that supervisors should communicate recent changes (n = 1) that impinge on assignment outcomes.

Table 4.45: Specify any comments regarding information in the yearbook that need revisiting to address your answer

Response	n = 8
Did not consult yearbook	1
Did not receive yearbook before commencement	1
Did not receive a yearbook	3
Importance of writing skills to be emphasized	1
Changes to be communicated with students	1
Difference between dissertation and structured Master's Degree was not well defined	1

4.4.41 Variable B41: The learning outcomes in the study guide were easy to understand

The majority of respondents agreed (n = 39/85%) that the study guide provided easily comprehendible learning outcomes (table 4.46). Clear and well-structured assignments were contributing factors to success in distance education (Wood, 2009:2).

Table 4.46: The learning outcomes in the study guide were easy to understand

Response	n = 46	%
Disagree	7	15
Agree	39	85

4.4.42 Variable B42: The study guide was comprehensive; it gave sufficient information on the assignments

This Master's Degree is a distance education programme. It is therefore noteworthy to receive a research response that respondents agreed (n = 33/72%) that the study guide was comprehensive and supplied sufficient information (table 4.47). Respondents who disagreed that the study guide provided them with sufficient information to do their assignments accounted for (n = 13/28%) responses. This outcome is a concern as distance education students reported frustration with the interpretation of assignments due to the inability to resolve interpretation problems immediately (Hara and King, 2000:569-570).

Table 4.47: The study guide was comprehensive; it gave sufficient information on the assignments

Response	n = 46	%
Disagree	13	28
Agree	33	72

4.4.43 Variable B43: The prescribed study material was easily available

According to table 4.48 (n = 31/68%) respondents had no difficulty in obtaining study material. They indicated that study material was easily available. Respondents who had difficulty obtaining study material signified (n = 15/32%) of responses. This is a concern if taking into account that this programme is offered as a distance education programme to students that might not be near centres to obtain prescribed material.

Table 4.48: The prescribed study material was easily available

Response	n = 46	%
Disagree	15	32
Agree	31	68

4.4.44 Variable B44: The comprehension of the content of the Master's Degree in Nursing satisfied my learning/developmental needs

The study needs of 81% of respondents (n = 37/81%) were met by the study content of this programme as shown in table 4.49. One in nearly five respondents (n = 9/19%) indicated that the content of the programme did not satisfy their needs.

Table 4.49: The comprehension of the content of the Master's Degree in Nursing satisfied my learning/developmental needs

Response	n = 46	%
Disagree	9	19
Agree	37	81

4.4.45 Variable B45: The academic resources in the library were easily accessible/available

In table 4.50 respondents indicated access to library resources not to be a barrier to 67% of respondents (n = 31/67%). Accessibility to academic library resources was however a challenge to (n = 15/33%) respondents. This is a concern in that electronic library services were recorded as invaluable for online studies (Mills and Hrubetz, 2001:168). Nicholas, Rowlands, Jubb and Jamali (2010:377 and 380) emphasized Higher Education Institution's responsibility to provide efficient library services with appropriate resources.

Table 4.50: The academic resources in the library were easily accessible/available

Response	n = 46	%
Disagree	15	33
Agree	31	67

4.4.46 Variable B46: The assistance by library staff in obtaining research articles satisfied my needs

The library staff delivered a service that fulfilled the needs of (n = 33/71%) respondents (table 4.51). Almost a third (n = 13/29%) of respondents were however dissatisfied with the service. This finding was in contrast with students that acknowledged librarian assistance to be a very rewarding experience during studies (Lessing and Schulze, 2002:146).

Table 4.51: The assistance by library staff in obtaining research articles satisfied my needs

Response	n = 46	%
Disagree	13	29
Agree	33	71

4.4.47 Variable B47: WebCT was an effective communication instrument to keep me updated on my progress in the programme

In this study, the Master's Degree in Nursing is offered in the distance education mode. The primary communication vehicle between student and supervisor is WebCT. WebCT was an effective communication instrument for 27 respondents (n = 27/58%) (table 4.52). It is a concern that nearly half of the respondents (n = 19/42%) did not experience WebCT as an effective communication instrument.

The results of the Spearman Rank Order Correlation between the variables, " WebCT was an effective communication instrument to keep me updated on my progress in the programme" and "I had no barriers to access internet technology" showed a significant outcome (Spearman Rank Order Correlation p-value = 0.05).

Table 4.52: WebCT was an effective communication instrument to keep me updated on my progress in the programme

Response	n = 46	%
Disagree	19	42
Agree	27	58

4.4.48 Variable B48: The lecturers were easily accessible

Access to lecturers was not a barrier to (n = 24/52%) respondents as shown in table 4.53. Nearly half of respondents (n = 22/48%) conveyed difficulty to access the lecturers. Stack

(2008:10-11) supported the view that students were challenged to synchronize their supervision needs with the availability of their supervisors.

Table 4.53: The lecturers were easily accessible

Response	n = 46	%
Disagree	22	48
Agree	24	52

4.4.49 Variable B49: The lecturers gave clear feedback

The feedback from lecturers were assessed to be clear to respondents (n= 29/63%) (table 4.54). It is a concern that more than a third of respondents (n = 17/37%) disagreed to having received clear feedback. Holmes and Papageorgiou (2009: 85, 91 and 95) supported the view that students may experience ambivalence on the feedback from the supervisors because students may misinterpret the feedback from the supervisors. Lee and Salamon (2004:164) commented that the supervisor may guide students to improve scripts, but rectification by the supervisor was prohibited. Supervisor workload also contributed to inadequate communication to students as they have time frame constraints.

Table 4.54: The lecturers gave clear feedback

Response	n = 46	%
Disagree	17	37
Agree	29	63

4.4.50 Variable B50: The lecturers gave constructive feedback

Feedback was indicated to be constructive by (n = 34/74%) respondents as shown in table 4.55. Just more than a quarter of the respondents (n = 12/26%) indicated the feedback as not constructive. Students valued feedback and guidance from supervisors (Letseka, Cosser, Breier, and Visser, 2009:74). Holmes and Papageorgiou (2009:90 and 92) explained that written feedback was the ultimate constructive feedback because students used it as reference to improve on future work.

Table 4.55: The lecturers gave constructive feedback

Response	n = 46	%
Disagree	12	26
Agree	34	74

4.4.51 Variable B51: The academic mentoring by lecturers had a positive influence on improvement of my critical thinking skills

Respondents (n = 31/67%) acknowledged improvement in their critical thinking skills to be the positive influence of their mentors (table 4.56). More than a third of respondents (n =

15/33%) disagreed that their lecturer's mentorship had a positive influence on their critical thinking skills. Postgraduate nursing students acknowledged that their previous tertiary education did not foster critical thinking skills (Platzer, Blake and Ashford, 2000:1004). According to Drennan (2010: 425) the mentorship of supervisors had a positive influence on critical thinking skills, as Master Degree graduates demonstrated significant better critical thinking skills than the students who just commenced their Master's Degree.

Table 4.56: The academic mentoring by lecturers had a positive influence on improvement of my critical thinking skills

Response	n = 46	%
Disagree	15	33
Agree	31	67

4.4.52 Variable B52: The specific learning needs of mature students were taken into account by academic staff when academic support was offered

Academic staff was sensitive to the learning needs of mature students according to (n = 27/58%) respondents (table 4.57). It is however a concern that (n = 19/42%) did not assess academic staff to be sensitive to their androgenic learning needs. Literature acknowledged that there are supervisors who are sensitive to mature student's learning needs (Steele, et al., 2005:6).

Table 4.57: The specific learning needs of mature students were taken into account by academic staff when academic support was offered

Response	n = 46	%
Disagree	19	42
Agree	27	58

4.4.53 Variable B53: The communication from the lecturer promoted my academic self-confidence

The majority of respondents (n = 26/56%) agreed that their academic self-confidence was promoted by the lecturer's communication. It is a concern that (n = 20/44%) of the respondents indicated the lecturer's communication as not an encouraging experience to their academic self-confidence (table 4.58).

Table 4.58: The communication from the lecturer promoted my academic self-confidence

Response	n = 46	%
Disagree	20	44
Agree	26	56

4.4.54 Variable B54: The university offered face-to-face workshops during my time of study

The university under study introduced face-to-face workshops to support distance education students. According to table 4.59 only 42 responses were recorded. The majority (n = 38/90%) of respondents studied during the years these workshops were offered.

Table 4.59: The university offered face-to-face workshops during my time of study

Response	n = 42	%
No	4	10
Yes	38	90

The following question was only an option to respondents who responded with a yes to Variable B54.

4.4.55 Variable B55: I attended the face-to-face workshops the university scheduled as academic support

Only 36 respondents who studied during the years of face-to-face workshops responded to whether they attended these workshops (table 4.60). The majority of respondents (n = 27/75%) did attend the workshops.

Table 4.60: I attended the face-to-face workshops the university scheduled as academic support

Response	n = 36	%
Yes	27	75
No	9	25

Only respondents who had a no response to variable B55 (table 4.60) were given the opportunity to respond on why they did not attend the workshops.

4.4.56 Variable B55.1: Reasons why respondents did not attend the offered workshops

Only 9 responses (n = 9/100%) were logged. The primary reason for non-attendance was because of respondents who worked abroad (n = 4/44%). Employer related reasons were accounted for as work schedule clashes (n = 2) and employers who could not release the respondents (n = 1). Respondents indicated that the Higher Education Institution related reason was the late communication (n = 1), although the dates of the workshops are published in the general study guide which students receive on registration as a student in the programme. The travelling distance to attend was indicated as a reason by (n = 1) respondent.

Table 4.61: Reasons why respondents did not attend the offered workshops

Response	n = 9
Working abroad	4
Workshops clashed with work schedule	2
Distance	1
Employer could not release	1
Notices received too late	1

4.4.57 Variable B56: The workshop on research methodology provided me with effective research skills (access offered only to a yes response on variable B55 shown in table 4.60)

Only 24 respondents (n = 24/100%) responded to this variable. According to table 4.62 the workshop on research methodology was indicated to be effective to the majority of respondents (n = 21/88%). Workshops were indicated not to be beneficial to (n = 3/12%) attending respondents.

Table 4.62: The workshop on research methodology provided me with effective research skills

Response	n = 24	%
Disagree	3	12
Agree	21	88

4.4.58 Variable B57: The workshop on academic and research support had a positive influence on my studies (access offered only to a yes response on variable B55 shown in table 4.60)

The response to this variable was (n = 24/100%) responses (table 4.63). The workshop on academic and research support was indicated to be beneficial to (n = 21/88%) respondents. A disagree response to any benefit gained from the workshop accounted for (n = 3/12%) respondents.

Table 4.63: The workshop on academic and research support had a positive influence on my studies

Response	n = 24	%
Disagree	3	12
Agree	21	88

4.4.59 Variable B58: The venues for telematic broadcastings were easy to reach with public/own transport from my residence or work place

Access to telematic venues were easy for (n = 28/61%) and a challenge for (n = 18/39%) respondents (table 4.64).

Table 4.64: The venues for telematic broadcastings were easy to reach with public/own transport from my residence or work place

Response	n = 46	%
Disagree	18	39
Agree	28	61

4.4.60 Variable B59: I attended the telematic broadcastings as my time allowed

Telematic broadcastings were attended as time allowed by respondents (n = 26/57%) (table 4.65). It is a concern that respondents (n = 20/43%) did not attend broadcasts and forfeited the support opportunities the Higher Education Institution offered.

Table 4.65: I attended the telematic broadcastings as my time allowed

Response	n = 46	%
Disagree	20	43
Agree	26	57

4.4.61 Variable B60: Attending the telematic broadcasted lectures was a priority in my studies

Attendance of telematic lectures was not a priority to the majority respondents (n = 25/54%) (table 4.66). A mere (n = 21/46%) accounted for an agree response that telematic lecture attendance was a priority.

Table 4.66: Attending the telematic broadcasted lectures was a priority in my studies

Response	n = 46	%
Disagree	25	54
Agree	21	46

4.4.62 Variable B61: The information obtained at telematic broadcastings were of great value to my studies

Telematic broadcastings were indicated to be of value to respondents (n = 26/56%) (table 4.67). Attendees (n = 20/44%) responded that they did not gain much value from attending broadcastings.

The result of the relation between the variable B59 "I attended the telematic broadcastings as my time allowed" and variable B61 "The information obtained at telematic broadcastings were of great value to my studies" showed a significant outcome (Spearman Rank Order Correlation p-value = 0.02). Attending respondents acknowledged the value the broadcasts added to their studies. The number of respondents (n = 26) who attended (table 4.65) and respondents (n = 26) accounting for the value of the broadcasts (table 4.67) were the same.

It is however a concern that although respondents (n = 28/61%) were not challenged to access broadcast venues (table 4.64), attendance was a priority to only (n = 21/46%) respondents (table 4.66).

Table 4.67: The information obtained at telematic broadcastings were of great value to my studies

Response	n = 46	%
Disagree	20	44
Agree	26	56

4.4.63 Variable B62: The telematic broadcastings aided in feeling connected/belonging to the academic environment of the university

The majority of respondents (n = 24/52%) agreed that the telematic broadcastings contributed to feel connected to the university (table 4.68). To a large extent respondents (n = 22/48%) did not indicate telematic broadcasts an effective tool to promote a feeling of belonging. Mays (2005:218) supported telematic broadcasts as a method to increase student contact in distance education.

Table 4.68: The telematic broadcastings aided in feeling connected/belonging to the academic environment of the university

Response	n = 46	%
Disagree	22	48
Agree	24	52

4.4.64 Variable B63: My employer supported my request for continuous education by granting me permission to study

Employers granted study permission to respondents (n = 29/63%), while (n = 17/37%) respondents studied without permission from their employers (table 4.69). The CHE (2007:147) indicated employer's lack to grant study permission a barrier to studies.

Table 4.69: My employer supported my request for continuous education by granting me permission to study

Response	n = 46	%
Disagree	17	37
Agree	29	63

4.4.65 Variable B64: My employer supported my request for continuous education by granting an assigned number of hours for research per week as on duty time

Employers did not support their employees with assigned hours for research as on duty time for (n = 35/76%) respondents (table 4.70). Respondents who had employer support for on

duty time study accrued for (n = 11/24%) responses. The employer's lack of time off for study support may lead students to consider leaving the programme (Walters and Koetsier, 2006:106).

Table 4.70: My employer supported my request for continuous education by granting an assigned number of hours for research per week as on duty time

Response	n = 46	%
Disagree	35	76
Agree	11	24

4.4.66 Variable B65: My employer honoured the support for continuous education by granting me financial assistance

Employers supported continuous education in the form of financial assistance for (n = 8/17%) respondents (table 4.71). Respondents (n = 38/83%) without employer financial support accrued for the majority of respondents. Nurses valued financial support for continuous education as they stayed loyal to such employers (Chan and Morrison, 2000:117).

Table 4.71: My employer honoured the support for continuous education by granting me financial assistance

Response	n = 46	%
Disagree	38	83
Agree	8	17

4.4.67 Variable B66: My employer allowed me to have flexible working hours to accommodate my study needs

Respondents (n = 35/76%) denoted that employers did not allow flexible working hours to accommodate their study needs (table 4.72). Only (n = 11/24%) respondents were favourably accommodated with adapted working hours during studies. Timmins and Nicholl (2005:481) supported employed students' efforts to negotiate flexitime with their employers to accommodate their study needs.

Table 4.72: My employer allowed me to have flexible working hours to accommodate my study needs

Response	n = 46	%
Disagree	35	76
Agree	11	24

4.4.68 Variable B67: The operational needs in my workplace required that I needed to work scheduled overtime

Employers did not require overtime for operational needs from (n = 24/52%) respondents, but overtime work for operational needs was required from (n = 22/48%) respondents (table 4.73). Time spent in paid employment was considered an assured judge of achievement because study time was reduced (Salamonson and Andrew, 2006:342 and 346).

Table 4.73: The operational needs in my workplace required that I needed to work scheduled overtime

Response	n = 46	%
Disagree	24	52
Agree	22	48

4.4.69 Variable B68: The service expectations of my employer had no influence on my studies

Employer's service expectations influenced (n = 30/65%) respondents (table 4.74). A minority of respondents (n = 16/35%) acknowledged that service expectations did not influence their studies. Agbonlaho and Offor (2008:185) emphasized that full-time employment and full-time studies did not serve the purpose as the pressure to cope leaded to premature exit to studies. Respondents (n = 4/11%) who left the programme indicated employer service demand as the motivation for leaving (table 4.13).

Table 4.74: The service expectations of my employer had no influence on my studies

Response	n = 46	%
Disagree	30	65
Agree	16	35

4.4.70 Variable B69: My employer validates a Master's Degree by translating monetary value to the remuneration of a holder of such a qualification

The majority of respondents evaluated that their employers did not validate their Master's Degree by translating financial benefits to the holder of such a qualification (n = 36/78%) (table 4.75). Only (n = 3/7%) respondents will gain financial benefit on attainment of their Master's Degree.

Table 4.75: My employer validates a Master's Degree by translating monetary value to the remuneration of a holder of such a qualification

Response	n = 46	%
Do not know	7	15
No	36	78
Yes	3	7

4.4.71 Variable B70: The minimum physical on duty/paid hours service per week my employer required from me during my studies were

The majority of respondents (n = 34/74%) did a 36 to 40 hours workweek while studying (table 4.76). Only four respondents (n = 4/9%) were allowed to study full-time with no duty hours of responsibility. Employed students valued work time to such an extent that they were not prepared to sacrifice employment time to utilize it for studies (Kember, Ying, Wan, Yung, Wai, Mui, Wing, Heung, Sam, Chi, Wanze, Chuen, Anne, Chu, and Jason, 2005:235).

According to Salamonson and Andrew (2006:342 and 346) the threshold for part-time paid services is sixteen hours per week during time of study. Only four (n = 4/9%) respondents were allowed studies in line with the literature.

Table 4.76: The minimum physical on duty/paid hours service per week my employer required from me during my studies

Response	n = 46	%
0	4	9
21-25	1	2
26-30	0	0
31-35	0	0
36-40	34	74
41-45	4	9
46-50	1	2
51-55	2	4

4.4.72 Variable B71: General comments

This was an open question completed by (n = 33/72%) respondents, whereas (n = 13/28%) did not respond. Respondents tended to give more than one comment. The response content was assessed for common trends. The content matter related to mainly three areas. The individual area had a few responses, while the study programme and Higher Education Institution related area received the most comments. The work related area also had only a few responses. The responses were grouped as follows:

4.4.72.1 General comments

A few general comments (n = 4/100%) did not fit any of the identified areas (table 4.77).

Table 4.77: General comments

Response	n = 4
No comment	2
Comment not applicable	2

4.4.72.2 Individual area

The individual area respondents (n = 10) focused their responses on the choice of their study and personal experiences during studies (table 4.78). Respondents who commented on the choice of the study programme: one respondent indicated enrolment as a "private matter" and another indicated enrolment as an individual initiative. A respondent who enrolled for the research programme reduced the student milieu to the supervisor-student relationship. One respondent commented that the study experience was a "tit for tat" experience.

Respondents commented on their lack of expected skills (n = 3). Mastering scientific writing skills, despite attendance of the workshop was indicated as a problem area. The acknowledgement of the inability to conquer the skill was reflected as a painful experience as it was verbalized in "my supervisor is becoming irritable with me, I feel as if I am stupid …". Another respondent suggested more exposure to scientific writing, computer skills and referencing in the second year of the structured programme.

Staying motivated in a distance education programme was challenging, as there were no supporting workshops at the time of study of the respondent. Prioritizing family, study and work needs were acknowledged as reasons for delay in attainment.

Table 4.78: Individual area

Response	n = 10
Selection of and experience to take up Master Degree studies	4
Acknowledge lack of skills e.g. scientific writing skills	3
Comments on experience of distance education	2
Comments on family and study	1

4.4.72.3 Study programme and the Higher Education Institution area

The study programme and Higher Education Institution area had the most comments (n = 28/100%) illustrated in table 4.79.

Telematic broadcasts were commented to be a problem area to respondents (n = 5/18%) as shown in table 4.79. Respondents could not access telematic broadcasts, were unable to

attend and more academic content would be welcomed by respondents. The Higher Education Institution did provide a DVD with the telematic broadcast content to non-attendees. Providing the information on DVD aided to keep up motivation of respondents.

Workshops were remarked on as a problem to respondents (n = 3/11%) as illustrated in table 4.79 because the notices reached respondents too late to rearrange family and employment responsibilities. One respondent consequently forfeited attendance. On affirming this response the researcher was informed that the dates of workshops and telematic broadcasts are published in the general study guide which students receive on registration of the programme.

Respondents acknowledged their needs relating to research skills in that they suggested: "workshops to be more practical, specifically statistics!!!!".

In table 4.79 one comment was raised on the lack of the knowledge on the library support service: "There was no assistance provided in respect to use of the library.."

A respondent commented on the discouraging influence curriculum changes had whereby students who stopped out did not retain credits for completed course work: “one has to start from scratch with no credits" (table 4.79).

Supervisory matters received the highest number of comment (n = 12/43%) according to table 4.79. Supervisors were commented to be a positive factor during studies. To the contrary, respondents experienced their supervisors' contribution to their studies as: "guidance was not always up to standard", "I experienced poor supervision both academically and availability of the supervisor, I was obliged to change supervisors." and "I was a distance learning student with very little support from my supervisor."

An employed respondent commented that the supervisor did not have empathy when the employer could not release the respondent on expected times.

Respondents also aired concerns (n = 6/21%) on institutional matters such as confidentiality on product quality as the dissertation of a graduated respondent was "gossiped" about, "in house problems amongst lecturers influenced me negatively…." , "Sometimes it feel like the race issue…" and "..supervisor was newly appointed by the university, and lacked insight to the requirements of the course". Respondents put alerting comments on knowledge on research of supervisors and suggested that their knowledge should be assessed. It was also commented that the Master's Degree study experience was so disappointing to a respondent that future study at this institution is disregarded (table 4.79).

Table 4.79: Study programme and the Higher Education Institution area

Response	n = 28	%
Telematic related comments	5	18
Workshop related comments	3	11
Library related comments	1	4
Curriculum related comments	1	4
Supervisor related comments	12	43
Concerning comments	6	21

4.4.72.4 Employer related area

Only a few respondents (n = 8) commented (table 4.80). One respondent commented work and studies a challenge. Employers did not value Master Degree studies (n = 4); comments pointed out that despite granted study leave, the supporting implementation was not accommodative to the respondent. Respondents denoted the worst support at the workplace and colleagues.

The workload expectancy of employers was commented as a challenge. Respondents (n = 3/38%) were challenged with higher working hours and consequently a higher workload: "As a result of my position at the hospital, it is required to work more than the minimum amount of hours per week to ensure that the operational needs are met" and "… hours spent on work exceeds the amount of hours remunerated for. This does not allow time for further studies". Workload also challenged employed respondents to prioritize family, work and study responsibilities.

Table 4.80: Employer related area

Response	n = 8
Work and study a challenge	1
Employers do not value Master Degree studies	4
Workload of employer	3

4.5 CONCLUSION

In this chapter the collected data was analysed, interpreted and discussed.

The researcher explored the research question:

"What are the factors influencing the throughput of the postgraduate nursing students who pursue a distance education Masters' Degree?"

The researcher used scientific, investigative techniques to identify factors that influence the throughput of postgraduate nursing students at a university in South Africa.

The following objectives were therefore achieved by identifying:

1. Factors related to the individual that influence throughput.
2. Factors related to the Higher Education Institution and study programme (academic) that influence throughput.
3. Factors related to the employer and employment that influence throughput.

In Chapter 5, recommendations are made, based on the results gained in this research.

CHAPTER 5: RECOMMENDATIONS

5.1 INTRODUCTION

In this chapter the conclusions derived from the scientific evidence obtained from this study, are drawn with references to findings from similar research.

The purpose, research question, objectives and limitations of this study are then shortly discussed. In conclusion, the recommendations as derived from this study are presented.

5.2 CONCLUSIONS

The objectives set for this study were to investigate factors influencing the throughput of the postgraduate nursing students who pursue a distance education Master's Degree in Nursing. The investigation was focused on factors related to the:

- individual that influences throughput
- Higher Education Institution and study programme (academic) that influence throughput and
- employer and employment that influence throughput.

These objectives were met through a research study that was aimed at the investigation of factors that influence the throughput of postgraduate nursing students who pursue a distance education Master's Degree at a university in South Africa.

5.3 RECOMMENDATIONS

5.3.1 Factors relating to the individual that influence throughput

5.3.1.1 Age and the influence thereof

Respondents' chronological age (variable A1) was summarized in table 4.1. Their age ranged from 26 years to 55 years with the highest response (58%) in the 40 to 49 years and lowest response (9%) in the 20 to 29 years age range.

The effect of age on the ability of respondents to keep up with study demands (variable B 9) was summarized in table 4.14. Age was not a barrier to keep up with studies for the majority (80%) of respondents, but to one in five (20%), age did affect their ability to keep up.

Newman-Ford, Lloyd and Thomas (2009:21) described best performance in the age range 36 to 40 years. The CHE (2009:xxii) indicated 34 years the average age of the South African Master Degree student. This study outcome reflected an older respondent enrolled for a

Master's Degree in Nursing. This outcome strengthened the concern of poor study performance of older students and consequent withdrawal that contributes to specialization gaps in the labour market (Newman-Ford, Lloyd and Thomas, 2009:21; Koen, 2007:9).

The enrolment of older students also endorsed the notion that insufficient attention is devoted to develop the future academics (Koen, 2007:49).

Recommendations

- Focused marketing of the nursing profession whereby career specialization is promoted as the norm to provide optimum nursing care;
- Active recruitment of students enrolled in advanced and Honours Degree in Nursing programmes to pursue continuous education to Master's Degree level;
- Visionary leadership among nurse managers, employers, Higher Education Institutions and the Department of Health to do a national audit on the nurse specialization education needs to serve the health care needs of the South African population. This audit should include the clinical and academic career needs for the years to come and
- Implementation of a national nursing specialization strategy whereby institution's nursing workforces are supported in career development for professional nurse employees under 30 years of age. Managers should initiate and root their strategic continuous education strategy plan for the nursing workforce in compliance to the Skills Development Act, Act no 97 of 1998 as amended. Employers who invested in supporting their professional nurses with continuous education reaped the success in reduced patient costs and improved patient care (Cowan, Shapiro, Hays, Afifi, Vazirani, Ward and Ettner, 2006:83).

5.3.1.2 Gender, Marital status and family

Variable A2 (gender) showed that the majority of respondents were female (98%) (table 4.2). The majority of respondents were married (54%) according to marital status (variable A4) (table 4.4). Being female and married is a challenge to students as they need to balance studies with parental and family responsibilities (Williams and Decker, 2009:82). Variable B10 addressed the management of family and studies and to (65%) respondents it was not easy to manage family and studies (table 4.15). Family responsibilities were the reason why respondents (16%) discontinued their studies (variable B8) (table 4.13). It is an accepted social norm that females have more household responsibilities than males (Toth, 2005:367-368). Family responsibilities were consequently indicated to be a barrier factor to students engaging in studies (Miller and Rector, 2002:339).

Although family responsibilities were challenging, respondents (80%) acknowledged their families as an effective support network during their studies (variable B11) (table 4.16). Respondents (19%) who left the programme prior to completion indicated the lack of a support network as a reason for not completing their studies (variable B8) (table 4.13).

Recommendations

- Introduction of a voluntary "Buddy system" by former Master Degree students to support present students;
- Introduction and active promotion of the existing support services at Higher Education Institutions and
- Early identification and engagement with high-risk students to show empathy and enhance the experience of support from the supervisor.

5.3.1.3 Home language and proficiency in English

Afrikaans was the home language (variable A3) (table 4.3) of the majority of respondents (54%). English is the language specification for Master Degree in Nursing studies at the Higher Education Institution under study (Stellenbosch University Faculty of Medicine and Health Sciences Yearbook, 2012:95). In this study the majority of respondents (65%) therefore prepared their dissertation in English which is not their home language.

Proficiency in English (variable B25) was indicated not to be a challenging factor during studies to the majority of respondents (78%), but it was a barrier factor to (22%) (table 4.30). English was supported as the primary language for international scientific interaction, but English proficiency was also endorsed as a performance predictor (Altbach, Reisberg and Rubley, 2009:3; Sandiford and Jackson, 2003:11).

Recommendations

- Higher Education Institutions should conduct an English proficiency assessment on potential students prior to enrolment for the Master Degree programme as part of the selection criteria and
- Students with poor English proficiency should first successfully complete a structured English writing and proficiency programme at the Higher Education Institution of study before they are enrolled for the Master's Degree studies.

5.3.1.4 Primary reason to enrol for Master Degree

The motivation to participate in continuous education is supported by the needs driven theory of Maslow and the internal locus of motivation according to the Cognitive Evaluation Theory (Norwood, 2009:1; Ryan and Deci, 2000:58).

The desire to access future career posts was indicated to be the primary reason why respondents (54%) registered for the Master's Degree in Nursing (variable B6) (table 4.10). In association with the primary reason why they enrolled for a Master's Degree, respondents (85%) agreed that a Master's Degree in Nursing studies was their first choice to further their careers (variable B15) (table 4.20).The participating respondents are very experienced professional nurses with (24%) respondents having 21 to 25 years experience (variable B5) (table 4.9) but (58%) of these respondents are in the 40 to 49 years age range (variable A1) (table 4.1). It therefore becomes clear that the majority of respondents are from a very experienced workforce and are most probably in their final progression phase before retirement.

Although respondents may be mentors to the upcoming professionals, it is however a concern that the younger generation, representing the future specialists, were poorly represented. Respondents (17%) accounted for professionals with 6 to 15 years experience (variable B5) (table 4.9) and (24%) respondents were younger than 40 years (variable A1) (table 4.1). Employers would therefore benefit the most if they support younger professionals' experiential learning with scientific rooted studies to become nursing specialists earlier in their careers.

Recommendations

- Higher Education Institutions should market specialist nurse training as a career enhancer;
- Nurse managers should participate in career development by identifying and encouraging potential students and
- Employers should incorporate nurse specialist education in their institutions annual strategic service delivery plan.

5.3.1.5 Motivation

Linking on to the indicated primary reason for continuous education, "to prepare for future posts" and "career advancement", all respondents (100%) indicated that they were well motivated (variable B14) (table 4.19) on commencement of the programme. Continuation of studies of these respondents (98%) was inspired by their success in previous studies (variable B16) (table 4.20).

Responses on the highest tertiary qualification on commencement (variable B2) (table 4.6) show that respondents (96%) held postgraduate diplomas or postgraduate degrees. The majority of respondents (53%) indicated a 1 to 5 year interval (table 4.7) in terms of the time interval between the last completed qualification/formal education programme and

commencement of Master Degree studies (variable B3). Previous findings were sustained by the responses in this study whereby a short time lapse of less than five years and previous study success were supported to be good predictors of success (Agbonlaho and Offor, 2008:183 and 185).

The lack of motivation was the stumbling block and consequential reason for withdrawal from studies of respondents (8%) who did not complete the programme (variable B8) (table 4.13).

Recommendations

- Recruitment of enrolled postgraduate students for continuous education to the Master's Degree within a time lapse of 5 years after completion of postgraduate studies and
- Further research on factors that erode initial motivation and positive future expectations to the point that students leave the programme.

5.3.1.6 Time management and coping with stress

Time management is a stressor as students tend to enter postgraduate studies without predetermined time estimations their studies will require (Timmins and Nicholl, 2005:479; Golde and Dore, 2001:29).

The availability of study time was tight, with reference to this study all respondents (100%) were employed (variable B4) (table 4.8) and the majority of respondents (74%) worked between 36 and 40 hours per week (variable B70) (table 4.76). Respondents (65%) also acknowledged that it was not easy to manage family and studies (variable B10) (table 4.15), nonetheless respondents (54%) kept to their study schedules even if they needed to adjust it (variable B28) (table 4.33).

Night time (variable B29) (table 4.34) was the primary study time of (70%) respondents. Half of the respondents (50%) practiced day light study time (variable B30) (table 4.35), while one in five respondents (20%) utilized a dual time schedule. Respondents (70%) worked goal focused and were not demotivated by the time input (variable B31) (table 4.36) they toiled. To nearly a third of respondents (30%), the motivation to continue their studies was adversely influenced by the time their studies demanded from them. Respondents who quitted studies indicated that a lack of motivation (8%) and inefficient time management skills (5%) were reasons why they left the programme (variable B8) (table 4.13).

The majority of respondents (74%) coped well with the study load (variable B33) (table 4.38), while nearly a quarter (26%) was challenged to cope. To manage the stress associated with studies, a minority of respondents acknowledged stress related behaviour to be the taking of

stimulants for example caffeine (33%) (variable B34) (table 4.39) and analgesics, for example Paracetamol (17%) (variable B36) (table 4.41). Carrier, Paquet, Fernandez-Bolanos, Girourard, Roy, Selmaoui and Filipini (2009:1016) confirmed that caffeine is the most popular stimulant used to stay awake. Results however showed that a person of middle age who takes caffeine may be more prone to sleep-wake rhythm abnormalities. The majority of respondents (71%) in this study is of middle age (40 to 59 years) (variable (A1) (table 4.1) and may be at risk to the adverse effects of their stress managing behaviour. Supervisors were nonetheless a source of comfort to (72%) respondents who did not avoid the supervisor when they experienced study stress (variable B32) (table 4.37). More than a quarter of respondents (28%) however admitted to avoiding supervisors when stressed.

Respondents (78%) disagreed to have indulged in poor life style habits for example the smoking of cigarettes during study stress (variable B35) (table 4.40). The effect of coping behaviour for example decreased sleeping time, had no adverse health (variable B37) (table 4.42) effect on the majority of respondents (68%). Nearly a third of respondents (32%) however acknowledged that their health was adversely affected by their coping behaviour.

Although respondents (32%) acknowledged the adverse effect of their behaviour on their health, no respondent who quitted the programme, indicated health factors as the reason for not completing the programme (variable B8) (table 4.13). Poor health during studies is a decisive factor in terminating studies (Glogowska, Young and Lockyer, 2007:67). When respondents' (70%) preference to night time (variable B29) (table 4.34) study and being employed (variable B4) (table 4.8) are taken into account it poses a serious warning to respondents that their health may suffer serious consequences. Tsui and Wing (2009:170-171) endorsed that students who had insufficient sleep suffered from day time drowsiness and psychopathology. Employment was an aggravating contributing factor to insufficient sleep and day time drowsiness in students that are already adversely affected by sleep deprivation. In this study professional nurses were the study population. Reflecting on the aforesaid, literature poses a warning to future students to pay cautious attention to proper time and study management. Students who practise coping and stress management behaviour that deprive them of sufficient and efficient sleep may not only put their health at risk but also their patients due to a lack of vigilance.

Respondents (78%) indicated that their coping behaviour did not have a negative influence on their studies (variable B38) (table 4.43). The studies of more than a fifth of respondents (22%) were however negatively influenced by their coping behaviour.

Recommendations

- Setting of annual scheduled information sessions by Higher Education Institutions for interested potential Master Degree students to clarify the full extent of what the study comprises. Previous year successful candidates can participate by giving first hand tips on what to expect and be forewarned about;
- Supervisors should have personal contact such as information consultation with each of his/her assigned students prior to the first assignment. This session should help the supervisor to assess the fears and study circumstances of the student. This activity would serve the purpose of early identification of high risk students and facilitate appropriate support references;
- Supervisors should be sensitive to high risk behaviour of insecure students such as avoidance due to stress and assist them with appropriate guidance and
- Employers who grant their employees study leave can also buy in to motivation and stress relieving strategies such as an assigned research mentor to the clinical division that can give moral support to students. This officer can champion small research projects in the institution that will foster a research culture among nurses.

5.3.1.7 Finances

Employed students acknowledged finances as a constraint during studies (Devlin, James and Grigg, 2008:115-116). When finances is a challenge to the family security, students tend to prioritize and will vacate the programmes (Quinn,Thomas, Slack, Casey, Thexton and Noble, 2005:30).

Respondents in this study had no illusion of the financial requirements of their studies. They (74%) indicated that they were well informed of the financial requirements of their studies (variable B17) (table 4.22). Notwithstanding sufficient information just more than half of respondents (54%) indicated that they had adequate financial support for the total expenses of their studies (variable B18) (table 4.23). Students however acknowledged their miscalculations on real costs of their studies (Glogowska, Young and Lockyer, 2007:68).

Finances were a challenge to some, but (70%) respondents indicated that finances did not pose a negative influence on their studies (variable B19) (table 4.24). It is however a concern that nearly a third of respondents' (30%) studies was negatively influenced by financial constraints. Respondents with financial challenges may be at risk to leave their studies. Financial barriers were indicated to be the reason why (8%) respondents left this programme (variable B8) (table 4.13). Financial barriers are acknowledged reasons to quitting studies. It is also valid that students with sufficient finances also leave and therefore finances are not always reason enough to quit studies (Koen, 2007:11).

Recommendations

- Higher Education Institutions should include real programme costs at recruitment information sessions such as tuition costs, prescribed study material, costs of editors and statisticians;
- Information sessions should be held in a pro-active manner to enable candidates who wish to access bursaries/scholarships that there is ample time for them to do so. It is therefore projected that candidates who access for example bursary funds will most probably have less concerns on financial challenges and
- Candidates should be made aware of hidden costs they unintentionally tend to miscalculate such as transport costs to telematic broadcasts/workshops, compatible information technology, internet costs, operational costs to prepare the research instruments and the final dissertation.

5.3.1.8 Expected skills on commencement of studies

a. Information technology and associated skills

Higher Education Institutions offering distance education programmes are encouraged to implement electronic student contact support (Mays, 2005:218). Online studies therefore challenge Higher Education Institutions and students to be skilled information technology users to be able to utilize web-based programmes (Mills and Hrubetz, 2001:171).

In this study the majority of respondents (80%) indicated not to have had computer access barriers (variable B20) (table 4.25). Access to a computer was however a challenge to one in five respondents (20%). Although (80%) respondents had no computer access difficulty, more respondents (89%), indicated that their word processing skills were sufficient for their study needs (variable B21) (table 4.26).

Access to the internet was not a barrier to the majority of respondents (78%) (variable B22) (table 4.27), but to more than a fifth of respondents (22%) access was a problem. The outcome of variable B23, “my internet search skills were sufficient for my study needs” showed that nearly a quarter of respondents (24%) indicated their internet search skills were inadequate for their study needs (table 4.28). The majority of respondents (76%) agreed that their internet search skills satisfied their study needs.

This programme operates as web–based distance education; students are therefore compelled to have computer and internet access for effective communication with the Higher Education Institution. It is therefore a concern that respondents were challenged with regard to computer (20%) (table 4.25) and internet (22%) (table 4.27) access barriers. A concerned number of respondents also indicated that their skills in word processing (11%) (table 4.26)

and internet search (24%) (table 4.28) were insufficient for their study needs. Despite these barriers, (83%) respondents indicated that their studies were not negatively influenced by their computer skills (variable B24) (table 4.29). The studies of (17%) respondents were negatively affected because of their insufficient computer skills. Although no respondent indicated a lack of computer skills to be a reason to leave the programme (variable B8) (table 4.13), respondents who struggle with information technology skills are at risk of leaving the programme.

Recommendations

- Assessment of online computer competency as an extra admission criteria for web-based programmes;
- The competency level of computer skills should be communicated to potential students. Students tend to overrate their true computer skills and
- Communication of the compatibility specifications of the programmes to be accessed during the study to prevent access frustrations due to inadequate software.

b. Scientific writing skills

Students with underdeveloped scientific writing skills tend to struggle coping with writing and tend to leave their studies (Koen, 2007:3; Kaminski, 2001:1).

In this study (63%) respondents indicated to be confident that they managed the skill of scientific writing with minimum guidance from their supervisors (variable B26) (table 4.31). More than a third of respondents (37%) acknowledged the necessity of extensive supervisor guidance to redress their shortcomings in scientific writing. One in three respondents (33%) indicated that they considered continuation of studies because of the lack of noticeable progress in scientific writing, despite major input, effort and time (variable B27) (table 4.32). Respondents (3%) who left the programme indicated their under developed scientific skills to be the reason for leaving (variable B8) (table 4.13). Tarrant, Dodgson and Law (2008:466) support the notion that scientific writing is a novel and challenging experience to nursing students.

Recommendations

- Higher Education Institutions should pay intensive attention to develop scientific writing skills on undergraduate level. This skill is particularly necessary for non-English speakers;
- Supervisors should do early identification of students who have underdeveloped scientific writing skills and refer them for remedial support within the Higher Education Institution structures;

- There is a need for early academic intervention in high risk students. Have a face-to-face consultation with the student at risk to discuss the impact of the present poor progress due to poor writing skills. Advise deregistration and completion of the short course in academic writing skills within the Higher Education Institution structures before continuation of studies and
- Implementation of compulsory scientific writing skills workshops/structured short course as a pre-amble activity to the academic year. (Potential students must have proof of attendance of the Higher Education Institution's generic workshops/short course on writing skills in the preceding two years as a credit to qualify for admission to the Master's Degree programme).

5.3.2 Factors relating to the Higher Education Institution and programme that influence throughput

5.3.2.1 Study guides and study material

Several factors influence distance education throughput. One enhancing factor is clear and well structured assignments (Wood, 2009:2).

Respondents (85%) were satisfied that the study guide outcomes were easy to understand (variable B41) (table 4.46), but (28%) respondents indicated that the guide provided insufficient information on the assignments (variable B42) (table 4.47). One explanation for the dissatisfaction on information may be the respondents' uncertainty on their abilities to achieve. It appears that respondents were more confident but anxious when they prepared structured assignments (DePaola, Sherwood and Robinson, 2009:62 and 68). Compiling a balanced online study guide is a challenge because students tend to give priority to assignments according to their cognitive style for example adaptive style give preference to structured assignments while innovators favour unstructured assignments (DePaola, Sherwood and Robinson, 2009:71).

It is a concern that (32%) respondents indicated that they were challenged to obtain prescribed study material (variable B43) (table 4.48). Landrum, Gurung and Spann (2012:17 and 20) emphasized that text books are still the primary stimulus in higher education. The accessibility of and the notion that the lecturer uses the same text book were two factors that played a role in a student's motivation to obtain and utilize the text book. The difficulty to obtain prescribed study material is a paralyzing factor as it may add to frustration with studies and erode motivation to continue.

The comprehension of the content of the Master's Degree in Nursing satisfied the majority of respondents (81%) (variable B44) (table 4.49). One in nearly five respondents (19%)

disagrees to be satisfied with the course content. The outcome of variable B44 is aligned with the response on whether studies in the Master's Degree in Nursing was a first choice of respondents (variable B15) (table 4.20). The response on variable B15 showed that respondents (85%) agreed to have studied their programme of choice. One explanation to not being satisfied with the course content may be because the year book information on the Master Degree in Nursing (variable B40) (table 4.45) was not known to the respondents (n = 5). Insufficient information on course differences may also be a contributing factor of dissatisfaction.

Recommendations

- Annual revisit of the study guide to adapt assignments that lend to ambiguity ;
- Reassessment of the structure of assignments to ensure that students achieve the intended outcome when they apply the instructions;
- Higher Education Institutions should check with providers that prescribed study material is still in print prior to publishing the list of prescribed study material;
- Redress the year book shortcoming of insufficient differentiation between the structured and dissertation programme;
- At the end of each module students should be requested to evaluate the module which should include the study guide instructions, search for or access to study material and their experienced challenges and
- Further research on the reasons why respondents were not satisfied with the comprehension content of the Master's Degree in Nursing programme should be done.

5.3.2.2 Library support service

Master Degree studies imply extensive literature studies. The availability of supporting literature resources and librarian assistance are synonymous with postgraduate studies.

In this study the majority of respondents (67%) agreed to have had easy access/availability to academic resources of the library (variable B45) (table 4.50), but more than a third of respondents (33%) were challenged to access the resources.

The support received from the library staff (variable B46) was to the satisfaction of (71%) respondents (table 4.51). Almost a third of respondents (29%) did not share this positive experience. Study outcomes supported the notion that students and particularly senior students value the service of librarians at the reference desk. Students utilize the library support irrespective whether it is face-to-face or web-based (Gratz and Gilbert, 2011:431-432).

Recommendations

- Further research on the challenges distance education Master Degree students experience in accessing academic library resources should be done;
- Include library services in the open day programme prior to registration and
- Include online search and communication assessment as part of admission criteria.

5.3.2.3 Effective communication between student and supervisor

a. WebCT

Effective communication between student and supervisor is imperative to ensure quality on the research product and support the study spirit of the student. Although respondents (58%) indicated WebCT an effective communication instrument (variable B47), nearly half of respondents (42%) disagreed with the statement (table 4.52). According to variable B22 (table 4.27) respondents (78%) had no internet access barriers, internet search skills were sufficient (variable B23) to respondents (76%) (table 4.28) and (83%) respondents indicated that their computer skills did not have a negative influence on their studies (variable B24) (table 4.29). It is therefore a concern that the efficiency of WebCT communication was not aligned with the indicated high ratings on internet access and skills. One explanation from literature is that respondents overrate their true achievements on computer skills (Elder and Koehn, 2009:148).

A study conducted by Zapalska, Shao and Shao (2003:98) evaluated WebCT effectiveness based on student feedback. Students indicated a less than expected percentage of satisfaction on progress tools, while communication tools such as e-mail and bulletin boards satisfied their needs. Results from the study done by Osman (2005:355, 357 and 358) supported the satisfaction with on-line interaction tools, but indicated that information technology infrastructure impacts on the effectiveness of WebCT. Online learning requires infrastructure that accommodate effective information transmission on high speed bandwidth and compatible computer systems. Britto (2004:282) emphasized the importance of the compatibility of computer systems in web-based surveys. Different browsers and different versions of programmes can deny user access to the WebCT. It is therefore important that all students should be able to utilize available resources and not be excluded due to incompatible information technology to their access.

In this study respondents indicated late communication about upcoming workshops as a barrier. Late notification made arrangements impossible and respondents consequently forfeit attendance of for example telematic broadcasts (variable B71) (table 4.77). On verification of the communication of telematic broadcasts with the centre responsible for the broadcasts, the researcher learned that respondents receive the year schedule for telematic

broadcasts with their general study guide on registration as a Master Degree student. It appears as if respondents fail to avail themselves of the content of the study guide to obtain the necessary information. It is not practise of the responsible unit to send reminder messages to students.

Recommendations

- Assess efficient utilisation of WebCT prior to admission to the programme;
- Compatible information technology specifications should be made available to potential students to enhance easy access and management of WebCT communication;
- Request student feedback on WebCT to evaluate the efficiency thereof as a communication instrument and
- Research to establish what caused the dissatisfaction with WebCT as communication instrument.

b. Communication with supervisor

The role of the supervisor is critical to the progress and quality of the research process. As facilitators they play an important role in preventing students from leaving a programmme (Tait, 2004:97).

Although respondents (52%) indicated that lecturers were easily accessible (variable B48) nearly half of respondents (48%) disagreed (table 4.53). Andrew (2012:47-48) commented that access might be a problem when distance education students required immediate input from the supervisor. Access can however be simplified by utilizing e-mails or supervisors can avail themselves at scheduled times.

Respondents (63%) indicated that they received clear feedback (variable B49) (table 4.54), and (74%) respondents indicated the received feedback as constructive (variable B50) (table 4.55). It is a concern that (37%) respondents perceived the feedback as unclear, which raises the question of whether it was a misinterpretation of the feedback because fewer respondents (26%) indicated the feedback not to be constructive. Distance education students expressed communication frustrations with delayed time intervals between a posed question and the answer from the supervisor (Cragg, Andrusyszyn and Frazer, 2005:28-29). Feedback serves as a point of reference because students wish to know “how” they are doing and “not just where” they are going (Andrew, 2012:51). Osman (2005:359) emphasized the importance of sufficient and well-timed feedback to distance education students to keep them dated on their progress.

The manner in which online communication is perceived influences the subjective experience thereof. Respondents (67%) agreed that lecturers had a positive influence on improvement of their critical thinking skills (variable B51) (table 4.56). It is a concern that (33%) respondents disagreed that the lecturer's mentorship improved their critical thinking skills. Studies sustained that students may never get the mastery of critical thinking skills even after having completed their studies. The argument continued in that "academic writing and critical thinking" are co-dependent (Borglin, 2012:611-612). Interdependence of academic writing and critical thinking is sustained in this study. Similar response numbers were captured of respondents who managed their critical thinking skills (67%) and scientific writing skills (63%) with guidance from their supervisors. Respondents (63%) indicated that they were confident that they managed the skill of scientific writing with minimum guidance from their supervisors (variable B26) (table 4.31), while (37%) respondents acknowledged the necessity of supervisor support to master scientific writing. "Academic literacy" is therefore an education dare, particular to nurse training (Borglin, 2012:612).

Lecturer communication promoted academic self-confidence (variable B53) (table 4.58) to (56%) respondents. Only (58%) respondents indicated that they experienced sensitivity to mature students' needs when academic support was offered (variable B52) (table 4.57). In this study the human connection is a concern. Respondents indicated that they did not have an adult-learning focused experience of the Higher Education Institution. Respondents (44%) indicated that they did not gain academic self-confidence and (42%) respondents indicated that mature student needs were not considered by academic staff. According to Klein-Collins (2011:4 and 7) adult learners at Higher Education Institutions have increased in the past forty years. Higher Education Institutions therefore had to revisit their strategies and concentrate on becoming adult-learning friendly institutions. A suggested strategy was to improve on after hours access to "support services" at times and venues that are convenient to full-time working students. These investigated strategies should also honour student abilities and their effort to continue education under challenging circumstances.

Recommendations

- Supervisors to schedule consultations to discuss feedback with distance education students to clarify uncertainties;
- Higher Education Institutions to revisit present policies to assess them for adult-learning friendliness;
- Further research on the nature of the support needs of adult employed Master's Degree in Nursing students and
- Further research on the nature of supervision challenges of adult employed Master's Degree in Nursing students in a distance education programme.

c. Workshops and telematic broadcasts

The university under study introduced face-to-face workshops and telematic broadcasts to support distance education students with a blended mode of education. The majority of respondents (90%) studied at the time face-to-face workshops were offered (variable B54) (table 4.59). Respondents (75%) indicated attendance of the scheduled workshops as academic support (variable B55) (table 4.60). Respondents (88%) agreed to the efficiency of the workshops on research skills (variable B56) (table 4.62) and academic and research support (variable B57) (table 4.63). According to comments in variable B71 (table 4.79) respondents would welcome more practical input in the workshops such as statistical calculations. Literature supports the value of workshop attendance, because students learn where they lack knowledge on the subject (Billington, Neeson and Barrett, 2009:742).

Although respondents (61%) had easy access to telematic broadcast venues (variable B58) (table 4.64), attendance of telematic broadcasts was a priority (variable B60) (table 4.66) to only (46%) respondents. Respondents (57%) agreed that they attended telematic broadcasts as their time allowed (variable B59) (table 4.65). Respondents (57%) agreed that information received at the broadcasts was of value to their studies (variable B61) (table 4.67). Attendance of the broadcasts allowed respondents (52%) to feel connected to the academic environment of the Higher Education Institution (variable B62) (table 4.68). Meyer (2001:66, 67 and 69) emphasized that interactive telematic broadcasts have preference to one-way communicated lectures. Several barriers may cause students not to have maximum benefit from the broadcasts. During broadcasts students may find it difficult to keep up with the presentation of the lecturers because of the limited scheduled time allocated for a broadcast, with reduced question time and students' lack of individual contact with the lecturer.

Recommendations

- Telematic broadcasts were not well attended or perceived to succeed in being an effective communication instrument. Further study is needed to improve this support service and
- Student study guides should indicate study material to allow pre-knowledge on the subject under discussion to enhance the learning experience.

d. Summary of communication barriers indicated in this study

Communication barriers were one of the main reasons why students left their studies (variable B8) (table 4.13). The outcome in this study indicates concerning outcomes of the influence which the following communications have:

- Information in the yearbook was sufficient regarding Master Degree in Nursing (variable B39) (table 4.44), (37%) respondents disagreed that the information on the Master Degree in Nursing in the yearbook was sufficient for their need.
- WebCT was an effective communication instrument (variable B47) (table 4.52), (42%) respondents disagreed to the efficiency of WebCT communication.
- Lecturer gave clear feedback (variable B49) (table 4.54), (37%) respondents disagreed on the clarity of the communicated feedback.
- Lecturer gave constructive feedback (variable B50) (table 4.55), (26%) of respondents disagreed about experiencing the communicated feedback as constructive.
- Academic mentoring had a positive influence on improvement of critical thinking skills (variable B51) (table 4.56), (33%) respondents disagreed to have gained improvement in their critical thinking skills because of their supervisors' mentorship.
- Scientific writing was managed with minimum guidance from supervisor (variable B26) (table 4.34), (37%) respondents disagreed that they needed minimum support. This outcome implies that supervisors had to utilize several communications to develop the skill to an acceptable level to reach the expected programme outcome.
- Telematic broadcasts as an effective communication tool to convey information is questionable as respondents (43%) disagreed that they assessed the information obtained at the broadcast as of value to their studies (variable B61) (table 4.67).
- Respondents (48%) did not feel connected to the academic environment when they attended the telematic broadcasts (variable B62) (table 4.68).

5.3.3 Factors relating to the employer that influence throughput

5.3.3.1 Employer support to continue education

Quality care is valued by health care providers. Nurses consequently need extensive education and competencies to fulfil patient expectations (Altmann, 2012:83). The employer's contribution to throughput can therefore not be underestimated (Koen, 2007:52).

Permission to study while employed is one way employers support continuous education. The lack of granted permission to study is a barrier to continueing studies (CHE, 2007:147). Respondents (63%) indicated employers granted them study permission (variable B63) (table 4.69), while respondents (24%) indicated that employers supported their request for continuous education by granting them assigned hours as on duty time (variable B64) (table 4.70). Employers who grant employees study leave permit special leave whereby employees receive paid days that they may utilize for study purposes according to study leave policy (Department of Health, Circular H103.2008:1-2**).**

In this study respondents (100%) were employed (variable B4) (table 4.8) at the time of study and although employers granted permission to study to (63%) respondents they did not honour the permission with granted study leave. Only (24%) respondents received study leave (variable B64) (table 4.70). It is therefore a concern that employers did not permit permission to (37%) respondents and that (76%) respondents had to do all their studies in their own time. Black and Bonner (2011:165-166) support this outcome. Employers did not support employees according to their required distance education needs. Study leave was one of the priority support requests of distance education students that were not granted. Employers appear to favour campus students because they granted them study leave to attain their qualification, while the same measures were not allowed for distance education students.

Distance education students rated employer financial assistance the highest "Liked" aid to receive (Black and Bonner, 2011:166). Employers are however challenged to give financial support to distance education students and even if they do, support is insufficient (Nartker, Stevens, Shumays, Kalowela, Kisimbo and Potter, 2010:4). Findings in this study indicated that employers granted financial support to (17%) respondents (variable B65) (table 4.71). The majority of respondents (83%) had to provide own or alternative resources (table 4.71). Respondents (54%) indicated that they had adequate financial support to cover their study expenses (variable B18) (table 4.23), while (46%) respondents lacked sufficient funds. Financial constraints during studies may have serious outcomes as (8%) respondents indicated financial barriers to be the reason for leaving their studies (variable B8) (table 4.13). Inadequate financial planning and provision is a risk factor in terms of leaving the programme.

Employed students took initiative to seek employer support by offering to do flexi-time to accommodate their studies (Timmins and Nicholl, 2005:481). Employers accommodated (24%) respondents with flexible hours to assist them in their study needs (variable B66) (table 4.72), while (76%) respondents were not supported by adapted shift schedules. The majority of respondents (67%) indicated their workplace network support to be a discouraging influence (variable B13) (table 4.18).

The influence of employer support to throughput cannot be underestimated because studies uphold the outcome in this study. Employers that do support their employees are invaluable because "…bosses can mean the difference between succeeding and deciding to end your studies…" (Cragg, Andrusyszyn and Fraser, 2005:32).

Recommendations

- Employers and service provider Higher Education Institutions should analyze the service training needs(present and future) and construct a mutual plan on how Higher Education Institutions can provide education to benefit all parties (employer, Higher Education Institution and employee/student) with best practice;
- Employers should be aware of national and international nursing education trends to guarantee a current competitive empowered nursing workforce and
- Employees who wish to further their education should pay cautious attention to the demands studies will put on their resources such as time and finances.

5.3.3.2 Employer service requirements and continuous education

Globally employers are disputed with an ageing and declining nurse workforce (Wells and Norman, 2009:811). The same problem faces South African health providers (Wildchut and Mqolozana, 2008:61). One way to deliver a service with less staff is to buy in staff with higher education and to require longer work hours (Block and Nortan, 2008:371-372).The outcome of expected working hours per week (variable B70) is shown in table 4.76. Respondents (74%) indicated to work a 36 to 40 hours per week. The longest work week was 51 to 55 hours done by (4%) respondents. Only (9%) respondents had no clinical responsibilities during their study period. Respondents (48%) indicated that workplace operational needs required them to do scheduled overtime (variable B67) (table 4.73). Employer expectations influenced the studies of (65%) respondents (variable B68) (table 4.74). The consequences of employer requirements are shown in results of (variable B8) (table 4.13) where (11%) respondents indicated that employer demands were the reason why they left their studies. According to variable B71 (table 4.80) respondents indicated responses related to employment. Respondents commented on workload challenges with comments such as: "…hours spent on work exceeds the amount of hours remunerated for. This does not allow time for further studies".

Employers exercise their managerial power when they consider or reject support to candidates for Master Degree studies. Some managers do not value the benefits and empowerment gained when Master Degree level studies are attained and are therefore not keen to support candidates. Service managers' power to direct continuous studies also negatively influences academic career pathing of nursing professionals (Drennan and Hyde, 2008:490-491). In this study (78%) respondents indicated that their employers do not validate Master's Degree in Nursing by translating monetary value to the holder of such a qualification (variable B69) (table 4.75). It is therefore a concern that employers do not exercise visionary leadership for their institutions. Employers who support the development of their staff enhance the level of service they render (Hughes, 2005:47-48).

Recommendations

- Leadership style of managers is an influentail factor for continuous education. Nurse managers have to reflect on their role in development of the future nurse specialists and the influence they as managers have on the efficiency of the service their workforce will be able to render;
- Feedback should be done on the outcome of this study to the employer stakeholders of respondents which are the public and the private health services;
- Further research on the reasons why nurse managers are reluctant to support continuous education on Master's Degree level;
- Further research is recommended on employer related factors that influence throughput and
- Further research on the viability of a clinical nurse career model comprising of nurse specialists and consultants in the health services of South Africa.

5.4 FURTHER RESEARCH

Further research is recommended with regard to the following:

Factors related to the individual that influence throughput:

- Further research on factors that erode initial motivation and positive future expectations to the point that students leave the programme.

Factors related to the Higher Education Institution and study programme (academic) that influence throughput:

- Further research on the reasons why respondents were not satisfied with the comprehension content of the Master's Degree in Nursing programme;
- Further research on the challenges distance education Master Degree students experience to access academic library resources;
- Further research on the nature of the support needs of adult employed Master's Degree in Nursing students;
- Further research on the nature of supervision challenges of adult employed Master's Degree in Nursing students in a distance education programme;
- Research to establish what caused the dissatisfaction with WebCT as communication instrument and
- Telematic broadcasts were not well attended or perceived to succeed in being an effective communication instrument. Further study is needed to improve this support service.

Factors related to the employer and employment that influence throughput:

- Further research is recommended on employer related factors that influence throughput;
- It is vital that further research is done to identify the reasons why nurse managers are reluctant to support continuous education on Master's Degree level and
- Further research on the viability of a clinical nurse career model comprising of nurse specialists and consultants in the health services of South Africa.

5.5 LIMITATIONS OF THE STUDY

It was difficult to verify the population database. Student registration from 2004 to 2006 was difficult to verify because the present administration and teaching staff at the Nursing Division were unfamiliar with the candidates. Although the population data base of 2007 to 2010 was easier to verify, students tended to exit the programme without leaving contact details or the only details available were invalid.

This study was limited to the division of nursing of one university which offers a Master's Degree as a structured and research distance education study. All registered students were potential respondents either in the two (2) pilot studies or the final study. The (23%) response in the final study was too small to generalize the outcomes of the study.

During the pilot study with hard copy instruments the researcher had difficulty to do reminder calls with the available telephone details. Despite several attempts to contact all on the sample list, it was clear that the contact detail of the data base was outdated. A much improved second pilot study with the electronic instrument was obtained. During the final study information technology and browser incompatibility were recorded. Telecommunication network failures with Blackberry technology was noted nationally and internationally during the time of the final study. Although technology gave positive feedback that all electronic addresses were valid during the electronic instrument study, candidates still did not respond despite three reminders.

5.6 CONCLUSION

The results from this study supported the research question being investigated, that is "What are the factors influencing the studies of the postgraduate nursing student following a Master's Degree?" This study was done at a university in South Africa and showed that factors related to the person, the Higher Education Institution and programme and the employer influence throughput.

Recommendations, based on the scientific evidence gained from former and currently enrolled students in the Master's Degree who completed the questionnaire, were provided to direct pragmatic resolutions to a multi-faceted reality in higher education. Recommendations aimed to stimulate pro-active, innovative actions to enhance students' study experience, promote the attainment rate of Master Degree graduates and enlighten employers on their responsibility and partnership to prepare a well trained workforce and acknowledge being the pipeline provider for academia.

It is foreseen that findings in this study will stimulate the necessary debate on how to improve on the current condition of mature employed students who are challenged with alterable barriers. The most powerful stakeholders in this situation are the employer and the Higher Education Institution. The challenge to both these parties is to act unconventionally and develop revolutionary strategies to address service delivery needs with a feasible appropriate educational fit.

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Annexure A

UNIVERSITEIT • STELLENBOSCH • UNIVERSITY
jou kennisvennoot • your knowledge partner

19 April 2010

Dr Ethelwynn Stellenberg
Department of Nursing
Stellenbosch University
P O Box 19063
TYGERBERG
7505

Dear Dr Stellenberg

RESEARCH PROJECT 10202342 : HW LOUBSER

"Factors influencing the throughput of Master's Degree Nursing students at a University in SA"

With reference to the above research application and the ethical clearance (ref. N10/03/092) of the Health Research Ethics Committee, I give institutional permission that Masters Degree Nursing students of the University are invited to participate in the study.

The researcher is advised to use the e-mail addresses of these students from the Outlook data base as the home addresses and telephone numbers of students are strictly confidential. The Head of the Nursing Department can, however, take responsibility for giving the information to the researcher.

Kind regards

DR GERT STEYN
DIRECTOR: INSTITUTIONAL RESEARCH

/E:permission_Tygerberg 10202342 HW Loubser.doc

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http://www.sun.ac.za/irp

Annexure B: Request for participation in the study with an explaining leaflet and implied consent

Dear Student

You are invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the Researcher or study supervisor any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is entirely voluntary and you are free to decline to participate. If you say no, this will not affect you negatively in any way. You are also free to withdraw from the study at any point, even if you did agree to take part.

Annexure C

Participant information leaflet and consent form – IMPLIED CONSENT

TITLE

Factors influencing the throughput of Master's Degree in Nursing students at a University in South Africa

RERENCENCE NUMBER: N10/03/092

PRINCIPLE INVESTIGATOR: Helena Wilhelmina Loubser

30 July 2011

CONTACT NUMBER 021 - 949 8266 (H) 021 - 938 5585 (W)

This study has been approved by the Human Research Ethics Committee at Stellenbosch University and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

This study will be done via e-mail questionnaire and aims to establish the challenges students experience to achieve success in their Master studies. The questionnaire focuses mainly on areas of study and studying and by answering these questions you will help identifying the main problems most students experience during their studies.

Why have you been invited to participate?

You, as postgraduate nursing student, are in the best position to express any study related problems you might have, since you have experienced this yourself.

What will your responsibilities be?

You only need to complete the questionnaire. Please complete the questionnaire by 31 August 2011**.** Completion of the questionnaire is totally voluntary, and if you do not want to answer all the questions that is also acceptable.

Will you benefit from taking part in this research?

You will probably not benefit from this study immediately, however the aim is to improve future academic support to the Master students.

Are there any risks involved in your taking part in this research?

There are no risks involved to you as person. This study is strictly confidential. The SUND counsellor, Ms. K. Joyner, will be available to all students in case any student needs debriefing afterwards.

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

You do not need to complete the questionnaire. We kindly request you just to return the unfilled questionnaire back to the researcher.

Who will have access to your records?

There will be no record of any student who participates in this study. Information collected will be treated as confidential and will only be accessed by the researcher, the study supervisor and the statistician of Stellenbosch University.

What will happen in the unlikely event of some form of injury occurring as direct result of you taking part in this research study?

There are no potential or actual risks involved in this study. Any student who require counselling or debriefing will be referred for help.

Will you be paid to take part in this study and are there any costs involved?No, you will not be paid to take part in the study, but your contribution will benefit future students.

Is there anything else that you should know or do?

Taking part in this study should not take more than 15 minutes to complete. This study has been brought to you and you are asked to complete it and return it to the researcher.

There is no declaration to be signed. The completion of the questionnaire will signify your willingness to consent and your voluntary participation in the study.

Your participation and feedback is valued.

Thank you

Researcher

Annexure D

Q1 I agree to participate in this study

1 Yes

2 No

Section A: Biographical data

Q2 Indicate your age in full years when you entered the Master's Degree study

Q3 Question 2: Indicate your gender

1 male

2 Female

Q4 Question 3: Indicate your home language

1 Afrikaans

2 English

3 Xhosa

4 Other - please specify

Q5 Question 4: Indicate your marital status when you entered the Master's Degree Study

1 single

2 life partner

3 married

4 divorced/separated

5 widow

6 widower

Section B: Influence of factors on studies of Master's Degree students

Q6 Question 1: Indicate your enrolment for the Master Degree in Nursing

1 Structured Master's Degree

2 Dissertation Master's Degree

Q7 Question 2: Indicate your highest tertiary qualification in nursing on commencement of Master's Degree

1 Postgraduate/Advance Diploma in Nursing

2 Postgraduate degree

3 Honours degree in Nursing

4 Other: Please specify

Q8 Question 3: Indicate the time interval in full numerical years between your last completed qualification/formal education programme and the year you commenced your Master's Degree

Q9 Question 4: Indicate your employment status during the time of your studies

1 Unemployed
2 Self employed
3 Employed by nursing agencies
4 Employed in public sector
5 Employed in private sector
6 Employed outside the South African boarders

Q10 Question 5: Indicate the number of years as a registered professional nurse on commencement of the Master's Degree

Q11 Question 6: Select the primary (one main) reason why you registered for the Master's Degree in nursing

1 A study opportunity was offered to me by my employer
2 Preparation for future career posts
3 Financial benefits in present post if I hold a Master Degree
4 Pastime
5 A Master's Degree is a post requirement for the present post. I need to comply to educational/employment requirements for this post level according to institutional/national policy
6 Other (please specify)

Q12 Question7: Did you complete your Master's Degree in Nursing?

1 Yes
2 No

Q13 Question 8: Only to be answered by respondents who indicated NO in the previous question. Identify all your reasons why you have not completed your Master's Degree studies

1 Communication barrier with the academic staff of the University
2 Service demands from my employer
3 Study demands of part time studies
4 Family responsibilities

5 Financial barriers
6 Health factors
7 Inefficient time management
8 Lack of support network
9 Lack of computer skills
10 Lack of motivation
11 No study leave
12 Under developed scientific writing skills
13 CURRENTLY REGISTERED FOR THE MASTER DEGREE
14 Other (please specify)

Personal information and support

Q14 Question 9 : My age has no effect on my ability to keep up with the demands of my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly disagree

Q15 Question 10: It was easy to manage family life and studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly disagree

Q16 Question 11: I have an effective personal support network in my family during my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly disagree

Q17 Question 12: My health was negatively influenced by the demands of my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly disagree

Q18 Question 13: My workplace support network is a positive driving force of encouragement during my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly disagree

Motivation and preparation

Q19 Question 14: I was well motivated on registration in the programme

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q20 Question 15: The Master's Degree in Nursing was my first choice to further my career

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q21 Question 16: My success in previous studies inspired me to continue my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Finances

Q22 Question 17: I was well informed on the financial requirements of my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q23 Question 18: I had adequate financial support for the total expenses of my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q24 Question 19: Financial costs had no negative influence on my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Information technology

Q25 Question 20: Access to a personal computer was not a barrier during my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q26 Question 21: My computer skills in word processing were sufficient for my study needs

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q27 Question 22: I had no barriers to access internet technology

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q28 Question 23: My internet search skills were sufficient for my study needs

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q29 Question 24: My computer skills had no negative influence on my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Language and writing skills

Q30 Question 25: My studies was not influenced by my proficiency in English

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q31 Question 26: I managed the skill of scientific writing with minimum guidance from my study leader

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q32 Question 27: The lack of noticeable progress in my scientific writing skills, despite major input, effort, guidance and time, had a negative influence on the continuation of my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Time management

Q33 Question 28: I kept to my planned study schedule even if I needed to adjust it from time to time

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q34 Question 29: I spent most of my study time as night hours with reduced sleep time

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q35 Question 30: I spent most of my study time as day light time between sunrise and sunset with reduced leisure time

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q36 Question 31: The number of hours(time) I utilized for studies had a negative influence on my motivation to continue my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Coping and coping mechanisms

Q37 Question 32: When I was stressed due to study requirements, I tended to avoid the supervisor

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q38 Question 33: I coped well with my study load

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q39 Question 34: When I was stressed due to study requirements I tended to take stimulants e.g. Caffeine

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q40 Question 35: When I was stressed due to study requirements I tended to indulge in poor life style habits e.g. smoke cigarettes

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q41 Question 36: When I was stressed due to study requirements I tended to take analgesics e.g. Paracetamol

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q42 Question 37: During my studies my coping behaviour, e.g. decreased sleeping time, had a negative influence on my general health

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q43 Question 38: During my studies my coping behaviour had a negative influence on my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Study programme

Q44 Question 39: The university yearbook supplied sufficient information regarding the Master's Degree in Nursing. It allowed me to be well aware on what is expected during studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q45 Question 40: The university yearbook supplied sufficient information regarding the Master's Degree in Nursing. It allowed me to be well aware on what is expected during studies.

Specify any comments regarding information in the yearbook that needs to be revisited to address your answer

_____

Q46 Question 41: The learning outcomes in the study guide were easy to understand

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q47 Question 42: The study guide was comprehensive, it gave sufficient information on the assignments

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q48 Question 43: The prescribed study material was easily available

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q49 Question 44: The comprehension of the content of the Master's Degree in Nursing satisfied my learning/developmental needs

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Academic support

Q50 Question 45: The academic resources in the library were easily accessible/available

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q51 Question 46: The assistance by library staff in obtaining research articles satisfied my needs

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q52 Question 47: WebCT was an effective communication instrument to keep me updated on my progress in the programme

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q53 Question 48: The lecturers were easily accessible

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q54 Question 49: The lecturers gave clear feedback

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q55 Question 50: The lecturers gave constructive feedback

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q56 Question 51: The academic mentoring by lecturers had a positive influence on improvement of my critical thinking skills

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q57 Question 52: The specific learning needs of mature students were taken into account by academic staff when academic support was offered

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q58 Question 53: The communication from the lecturer promoted my academic self-confidence

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q59 Question 54: The university offered face-to-face workshops during my time of study

1 yes
2 no

Q60 Question 55: I attended the face-to-face workshops the university scheduled as academic support

1 yes
2 No, why not

Value of Workshops

Q61 Question 56: The workshop on research methodology provided me with effective research skills

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q62 Question 57: The workshop on academic and research support had a positive influence on my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Telematic broadcastings

Q63 Question 58: The venues for telematic broadcastings were easy to reach with public/own transport from my residence or work place

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q64 Question 59: I attended the telematic broadcastings as my time allowed

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q65 Question 60 :Attending the telematic broadcasted lectures was a priority in my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q66 Question 61: The information obtained as telematic broadcastings were of great value to my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q67 Question 62: The telematic broadcasts aided in feeling connected/belonging to the academic environment of the university

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Employer/employee relationship

Q68 Question 63: My employer supported my request for continuous education by granting me permission to study

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q69 Question 64: My employer supported my request for continuous education by granting an assigned number of hours for research per week as on duty time

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q70 Question 65: My employer honoured the support for continuous education by granting me financial assistance

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q71 Question 66: My employer allowed me to have flexible working hours to accommodate my study needs

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q72 Question 67: The operational needs in my workplace required that I needed to work scheduled overtime

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q73 Question 68: The service expectations of my employer had no influence on my studies

4 Strongly Agree
3 Agree
2 Disagree
1 Strongly Disagree

Q74 Question 69: My employer validates a Master's Degree by translating monetary value to the remuneration of a holder of such a qualification

1 yes
2 no
3 do not know

Q75 Question 70: The minimum physical on duty/paid hours service my employer required from me during my studies were hours per week

Q76 Question71: General comments. Indicate any general comments you would like to make

Annexure E: Letter of confirmation of editing

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TO WHOM IT MAY CONCERN

This letter serves to confirm that the undersigned

ILLONA ALTHAEA MEYER

has proof-read and edited the document contained herein for language correctness.

(Ms IA Meyer)

Email: illona@toptutoring.co.za Tel: 27 21 9514257 Cell: 27 78 264 8484 Fax: 0865148540
3 Beroma Crescent Beroma Bellville 7530

Annexure F: Letter of confirmation of formatting

Lize Vorster Communication

To whom it may concern

This letter serves as confirmation that I, Lize Vorster, have performed the technical formatting of Helena Wilhelmina Loubser's thesis which entails ensuring its compliance with the Stellenbosch University's technical requirements.

Yours sincerely

Lize Vorster

Vygie street 9, Welgevonden Estate, Stellenbosch, 7600 * e-mail: lizevorster@gmail.com * cell: 082 856 8221