# STRESSORS AND COPING STRATEGIES AMONG BACCALAUREUS TECHNOLOGIAE UNDERGRADUATE NURSING STUDENTS AT A WESTERN CAPE HIGHER EDUCATION INSTITUTION

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# DECLARATION

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

Date: March 2018

# ABSTRACT

**Background**

There is a great global concern to identify early signs of stress and coping strategies among undergraduate nursing students. Effective identification and recognition of these potential stressors may help nursing students to adjust their existing coping strategies more effectively, increase their ability to grow into the nursing profession, and improve their physical and emotional well-being.

**Design**

This was a descriptive, cross-sectional quantitative study using a questionnaire survey to describe the stressors experienced and coping strategies used by undergraduate nursing students at one point in time. The aim of the study was to identify stressors and coping strategies among BTech undergraduate nursing students studying towards becoming a registered nurse. The objectives were to:

- Identify stressors (distress, eustress) as experienced by these students;
- Identify the coping strategies used by these students; and
- Determine the association between the stressors and the type of coping strategies used by the students.

Three questionnaires were used. The first questionnaire was utilised to gather biographical data. The second one, with the title "Index of Sources of Stress in Nursing Students'' (ISSN), measured the stressors. The third questionnaire, titled "Coping Schemas Inventory Revised'', measured the coping strategies in a multicultural environment. Furthermore, four open-ended questions were included to identify the personal and financial stressors (distress/eustress). The target population included the second year (Extended Curriculum Programme) group, and the rest of the mainstream groups (first, second, third, and fourth year) nursing students (N=211) studying towards a registration as a registered professional nurse at a nursing higher education institution in the Western Cape. A non-probability convenience sampling method was used since it was the most practical method to utilise. The pilot study included five (5) fourth year undergraduate nursing students, who were excluded from the main study. A statistician from Stellenbosch University assisted with the data analysis. A statistical package was applied to calculate the frequencies, mean scores, and standard deviations of stressors and coping strategies. Pearson's correlation test was applied to analyse the associations between the variables. Ethical approval was granted from the Health Research Ethics Committee of Stellenbosch University (HREC, Reference

number: S15/10/256), the Department of Health (WC20 16RP42 963), the Cape Peninsula University of Technology-Health and Wellness Science Research Ethics Committee (HW-REC 2017/H1) and the nursing higher education institution where the study was conducted.

**Results**

It was found that nursing students experienced distress as well as eustress. Nursing students used a variety of coping strategies to adapt to their stressors. Support from family and friends were deemed valuable for students. Financial issues were a main stressor for students. Although students rated eustress high, the distresses are more profound than burnout. Nursing students used a variety of coping strategies. Religious coping was the most frequently reported strategy used by them.

The hypotheses was tested and a positive correlation was reported between the positive (uplifting) stressors and coping strategies such as social support, passive and active emotional support, religious support, self-restructuring, acceptance, tension reduction, and meaning.

**Conclusion**

The descriptive cross-sectional study identified the stressors and coping strategies used by undergraduate nursing students. It was evident that students at this nursing education institution experience both distress and eustress. They also apply a variety of coping strategies. In the light of this, capacity building interventions should be designed and implemented to equip students at this nursing education institution. These interventions could specifically focus on those areas of stress coping strategies that was identified as shortcomings, and build on their positive coping strategies. This ties in with the profile of trends in the academic support and development for students and staff at Higher Education Institutions in South Africa.

**Key words**

Stressors, coping, Extended Curriculum Programme, undergraduate nursing students, higher education institution

# OPSOMMING

**Agtergrond**

Daar bestaan tans ŉ globale bekommernis oor die vroeë tekens van stres en hanteringstrategieë onder voorgraadse verpleegstudente. Effektiewe identifikasie en herkenning van die potensiële stressors mag verpleegstudente help om hul bestaande hanteringstrategieë meer effektief aan te pas, hul vermoë om in verpleging as ŉ beroep te groei en hul fisiese asook emosionele welstand te verbeter.

**Ontwerp**

Hierdie beskrywende deursnee-kwantitatiewe studie het ŉ vraelys opname gebruik om die stressors en hanteringstrategieë onder voorgraadse verpleegstudente gedurende ŉ bepaalde tydstip te beskryf. Die doel van die studie was om stressors en hanteringstrategieë onder BTech voorgraadse verpleegstudente wat studeer om ŉ geregistreerde verpleegkundige te word, te identifiseer.

Die doelwitte was om:

- Die stressors, naamlik angstigheid (negatiewe spanning) en eustres (positiewe spanning), by die studente te identifiseer;
- Die hanteringstrategieë wat deur die studente gebruik word te identifiseer; en
- Die verbintenis tussen die stressors en die tipe hanteringstrategieë wat die studente gebruik te bepaal.

Drie vraelyste is gebruik. Die eerste vraelys het biografiese data ingesamel. Die tweede vraelys het die stressors gemeet en was getiteld "Indeks van Stresbronne by Verpleegstudente". Die derde vraelys het die hanteringstrategieë in ŉ multi-kulturele omgewing gemeet. Hierdie vraelys se titel is "Hersiene Hanteringskema-Inventaris". Die teiken bevolking was tweedejaar-studente in die verlengde kurrikulum program, asook hoofstroom eerste, tweede-, derde- en vierdejaar-verpleegstudente aan ŉ hoëronderwysinstelling vir verpleging in die Wes-Kaap (N=211) wat studeer om ŉ loopbaan as ŉ geregistreerde verpleegkundige te volg. ŉ Nie-waarskynlikheid-geriefsteekproefneming is toegepas aangesien dit die beste praktiese metode was om te gebruik. Die geloodsde ondersoek het vyf (5) vierdejaar studente ingesluit wat by die hoofstudie uitgesluit is. ŉ Statistikus van die Universiteit van Stellenbosch het hulp verleen met die data-analise. ŉ Statistiese pakket vir die gereelde gebruik van stressors en hanteringstrategieë (gemiddelde telling en standaardafwyking) is toegepas. Die Pearson korrelasietoets is toegepas om die assosiasies tussen die veranderlikes te ondersoek. Etiese goedkeuring is deur die

Gesondheidsnavorsing Etiese Komitee van die Universiteit van Stellenbosch (HREC, Verwysingsnommer S15/10/256), die Department van Gesondheid (WC20 16RP42 963), die Kaapse Skiereiland Universiteit van Tegnologie se Gesondheid en Welstandswetenskapnavorsing Etiese Komitee (HW-REC 2017/H1), asook die hoëronderwysinstelling vir verpleging waar die studie plaasgevind het, verleen.

**Uitslae**

Daar is bevind dat die verpleegstudente beide angstigheid en positiewe spanning (eustres) ervaar. Verpleegstudente gebruik verskeie hanteringstrategieë om by hul stressors aan te pas. Ondersteuning van familie en vriende is waardevol vir die studente. Finansiële kwessies is 'n hoofstressor vir hierdie studente. Alhoewel hulle eustres hoog geag het, was angstigheid meer diepgaande as uitbranding. Verpleegstudente gebruik verskeie hanteringstrategieë. Geloof is as die mees gewilde strategie geïdentifiseer.

Die hipotese is getoets en dit het 'n positiewe korrelasie tussen opbouende stressors en hanteringstrategieë soos sosiale ondersteuning, passiewe en aktiewe emosionele steun, religieuse steun, self-herstrukturering, aanvaarding, spanningsverlaging en sinvolheid.

**Afsluiting**

Hierdie beskrywende deursnee-studie het die stressors en die hanteringstrategieë wat deur voorgraadse studente gebruik word, ondersoek. Dit was duidelik dat studente by hierdie verpleegkunde-onderwysinstelling beide angstigheid en positiewe spanning (eustres) ervaar. Hulle maak ook van 'n verskeidenheid hanteringstrategieë gebruik. In die lig hiervan word daar voorgestel dat kapasiteitsbouende intervensies ontwerp en geïmplementeer moet word om studente by hierdie verpleeg-onderwysinstelling toe te rus. Die intervensies kan spesifiek op die areas van stres-hanteringstrategieë wat as tekortkominge geïdentifiseer is, fokus asook bou op hulle positiewe hanteringstrategieë. Dit sluit aan by die profiel van tendense in die akademiese ondersteuning en ontwikkeling vir studente en personeel by hoëronderwysinstellings in Suid-Afrika.

**Sleutelwoorde**

Stressors, hantering, Verlengde Kurrikulumprogram, voorgraadse verpleegstudente, hoëronderwysinstelling.

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# TABLE OF CONTENTS

# LIST OF TABLES

# LIST OF FIGURES

# ANNEXURES

# ABBREVIATIONS

xvii

BTech          Baccalaureus Technologiae

CPUT           Cape Peninsula University of Technology

DHET           Department of Higher Education and Training

ECP            Extended Curriculum Programme

HEQF           Higher Education Qualification Framework

HEQSF          Higher Education Qualification Sub-Framework

NQF            National Qualification Framework

NSFAS          National Student Financial Aid Scheme

SANC           South African Nursing Council

SAQA           South African Qualification Authority

WCCN           Western Cape College of Nursing

# CHAPTER 1:
# SCIENTIFIC FOUNDATION OF THE STUDY

## 1.1 INTRODUCTION

Stress and related coping strategies among undergraduate nursing students has become a worldwide concern. Literature reveals evidence of the global interest in stress among nursing students (Gibbons, 2010:1299; Lopez & Leigh, 2012:345; Karimi, Leggat, Donohue, Farell & Couper, 2013:176). Undergraduate nursing students find themselves in highly stressful learning environments when they enter their new higher education programmes. These undergraduate nursing students have different personality types, come from different cultural backgrounds and have different coping strategies in stressful situations (Warbah, Sathiyaseelan, VijayaKumar, Vasantharaj, Russel & Jacob, 2007:597; Fornes-Vives, Garcia-Banda, Frias-Navarro & Rosales-Valadrich, 2015:318; Wolf, Stidham & Ross, 2015:201-202).

Furthermore, even before graduation nursing students join a workforce that faces nursing shortages. This creates additional stress since they are responsible for high-level quality clinical care without the necessary knowledge (Halperin & Maschiach-Eizenberg, 2013:1). However, it is expected that nursing students cope with stress beyond their training period; they have to continually adapt their coping strategies in order to survive, grow, and maintain their "individual integrity" (Khumar, 2011:150). It is vital for nurse educators at nursing education institutions to be cognisant of stressors for nursing students and the potential maladaptive strategies that students use in order to alleviate their stress (Deasy, Coughlan, Pironom, Jourdan & Mannix-McNamara, 2014:16). Hence, nurse educators require a deeper understanding of stress and coping in order to support students during difficult times.

A systematic review of quantitative studies on sources of stress revealed that most research was conducted in Europe and England (Pulido-Martos, Augusto-Landa & Lopez- Zafra, 2011:15). From the literature review, it is evident that in the South African context, the majority of studies on stress and coping, specifically referring to nursing, mostly apply to registered nurses working in South African tertiary hospitals (Makie, 2006:112). Furthermore, other studies focus on the factors associated with the attrition rate such as stress due to negative experiences of clinical placement and financial problems (West, 2013:112; Masango, 2014:721-722).

Added to the above, relevant studies in the South African context include the qualitative, exploratory study of Watkins, Roos and Van der Walt (2011:1) regarding the different dimensions of nursing students' well-being. This current study is unique, because of the multiple environmental, social, and personal challenges characterising South African society. Stress and coping strategies among nursing students has been widely investigated. However, limited research has been completed amongst undergraduate nursing students at higher education institutions in South African settings. Furthermore, if stress is not managed correctly, this can lead to psychological distress, which is an indicator of mental health, and escape avoidance behaviours such as alcohol abuse (Deasy *et al.*, 2014:18).

## 1.2    RATIONALE

The study endeavoured to contribute new knowledge to the field of stress and coping strategies with regard to how nursing students rate stressors, both as a distress but also as a positive (eustress) experience.

The researcher found no previous studies exploring stress and coping amongst undergraduate nursing students in a South African setting, and more so, within the specific nursing education institution. Based on international studies and the current changes characteristic of higher education institutions in South Africa, it can be concluded that stress and coping is a serious problem. Stress and coping strategies had become a universal phenomenon particularly in the medical and health sciences professions (Govender, Mkhabela, Hlongwane, Jalim & Jetha, 2015:34). Globally there is a growing body of research that addresses stress among undergraduate nursing students and the effect on their well-being (Watkins, Roos & Van der Walt, 2011:1; Por, Barriball, Fitzpatrick & Roberts, 2011:855; Tuomi *et al.*, 2013:692).

The possibility that stress (distress) and ineffective coping strategies may have an effect on undergraduate nursing student's academic performance, as well as physical and mental health, has motivated the researcher to conduct this study. It is hoped that the study would provide greater insight into the problem by having the necessary evidence regarding stress in and coping strategies used by nursing students.

## 1.3    SIGNIFICANCE OF THE PROBLEM

Stress can have a huge impact on students' education, health, and ability to function in the nursing profession (Lim, Bogossian & Ahern, 2010:22). As a nurse educator, the researcher observed that nursing students experienced conflict due to their demanding academic programme, coping capabilities, as well as lack of support from home, nurse educators, and

the higher education institution. Students seemed to find it difficult to become actively involved in their studies. Furthermore, the researcher observed a general tendency towards passivity, which may indicate a defence mechanism that relates to avoidance of the source of stress.

The new curriculum for the BTech program carries a greater academic workload and the researcher observed that students were not adequately prepared to address the psychological challenges, such as anxiety, due to the academic workload of this new programme. Previous studies conducted at this specific higher education institution indicated that the attrition rate could be related to certain stressors such as personal, financial, and the lack of support experienced by nursing students (West, 2013:44-45). Reporting on a qualitative study of undergraduate nursing students at the same institution, McLachlan (2010:100-112), identified financial, economic, and the higher education environment as some of the stressors that contribute to poor academic performance.

Nurse educators need to identify potential stressors, plan interventions, and strategies that are effective in reducing nursing students' stressors (Labrague, 2013:430). Furthermore, nurse educators need to support nursing students through strengthening their positive stress (eustress) and coping strategies (Labrague, 2013:430). Nurse educators can propose changes and review the current curriculum regarding nursing students' theoretical and clinical learning experiences to help them cope more effectively (Klainin-Yobas, Keawkerd, Pumpuang, Thunyadee, Thanoi & He, 2013:1288). Moreover, years after numerous research studies regarding the impact of stress and coping amongst nursing students has been completed, huge gaps and inconsistencies still remain (Connor-Smith & Flachsbart, 2007:1080-1107).

## 1.4    RESEARCH PROBLEM

Although there is evidence in the literature regarding stress in nursing students as a growing problem, there is little research assessing stress among undergraduate nursing students in South Africa in the specific institutional context.

Psychological distress among nursing students is a global concern (Deasy *et al.*, 2014:2; Abasimi, Atindanbila, Mahamah & Gai, 2015:89-90). The mental health and emotional well-being of these students have been identified as a significant issue (Deasy *et al.*, 2014:16-19; Abasimi *et al;* 2015:89-90). Nursing students are frequently exposed to various stressors, which may delay their learning performance. Moreover, nursing students are required to master a clinical component and are exposed to additional stressors associated with patients and the hospital environment, which may further increase their risk for psychological distress

(Shaban, Khater & Akhu-Zaheya, 2012:204; Khater, Akhu-Zaheya & Shaban, 2014:194; Yildirim, Karaca, Cangur, Acikgoz & Akkus, 2017:33). In addition, a rapid change in the curriculum, the students' socio-economic status, and cultural differences as well as the academic, clinical, and social environments place a high demand on the student's ability to cope with their academic requirements.

Stress can also be positive because it challenges and motivates nursing students to succeed. However, emotional distress is crucial from a health promotion/illness prevention point of view because of its links with risk behaviours, physical illness, and its tendency to precede more serious mental health disorders, such as burnout, in nursing students. Furthermore, nursing students are frequently exposed to disturbing experiences, such as dealing with dying patients and death, which may give rise to anxiety (Peters, Cant, Payne, M O'Connor, Hood, Morphet & Shimoinaba, 2012:14). Thus, research have shown that the long duration and intense pressures and demands of nursing education and training can be emotionally taxing and can have detrimental effects on the academic performance, physical and psychological well-being of students. It is essential to cope effectively with stress (Yildirim *et al.,* 2017:33).

## 1.5    RESEARCH QUESTIONS
 The researcher explored the following questions in the study:

- What are the stressors and coping strategies of the BTech nursing students at a Western Cape nursing higher education institution?
- Does the type of stressors affect the type of coping strategies used by BTech nursing students?

## 1.6    RESEARCH HYPOTHESIS
The research hypothesis is that BTech undergraduate nursing students at a NEI in Western Cape experience distress or eustress and are able to cope with stress.

## 1.7    RESEARCH AIM
The aim of this study was to identify stressors and coping strategies among BTech undergraduate nursing students at a Higher Education Institution in the Western Cape Province.

## 1.8    RESEARCH OBJECTIVES
The research objectives were to:

- Identify the stressors (eustress, distress) as experienced by BTech nursing students;

- Identify the coping strategies used by BTech nursing students to relieve their stress;

- Determine the association between stressors and the method of coping strategies used by BTech nursing students.

## 1.9    RESEARCH METHODOLOGY

### 1.9.1    Research design

A descriptive cross-sectional design with a quantitative approach was used to conduct the study. The quantitative approach allowed the researcher to involve a relatively large group of students, while the descriptive design was used to obtained more information about the characteristics of a particular group (Grove *et al.*, 2013:215). Thus, for the purpose of the study, a descriptive, cross-sectional quantitative design was used to provide the researcher with information about the naturally occurring behaviour, attitudes, and mental health status of nursing students when they experienced stress. Moreover, a cross-sectional design ensured that the data was collected from participants at a specific point in time (Polit & Beck, 2012:725). The cross-sectional design was the most appropriate approach to assess the stress experienced and coping strategies used by the nursing students.

### 1.9.2    Study setting

The study was conducted at a nursing education institution in the Western Cape Province of South Africa.

### 1.9.3    Population and sampling

The target population included all first, second, third and fourth-year undergraduate student nurses (N=590). A non-probability, convenience sampling method was used to select a representative sample size of 35% (n=211) of the total population.

#### *1.9.3.1    Inclusion criteria*

All the BTech undergraduate nursing students from the institution concerned and in an urban area who were willing to participate were included.

#### *1.9.3.2    Exclusion criteria*

BTech undergraduate nursing students from the rural campuses were excluded from the study.

### 1.9.4    Instrumentation

The researcher collected data by using three self-reporting, structured questionnaires and four open-ended questions (Annexure B).

### 1.9.5    Pre-testing of instrument

Since the reliability and validity of the instrument had already been established previously (refer to section 3.8), a pre-test was conducted on a small representative group of students in their fourth year of study. The pre-testing of the instrument was conducted to

- Establish face validity and understanding of questions,

- Highlight potential ambiguous questions,

- Observe the time it would take to complete the questionnaire, and

- Identify the practical aspects that would require adjustment by the researcher.

### 1.9.6    Reliability and validity

Research experts in the field of stress and coping validated the instrument in terms of content and outcome. Furthermore, the questionnaire was distributed to experts in education to verify face, criterion, and construct validity.

### 1.9.7    Data collection

The researcher and a trained fieldworker administered questionnaires at the nursing education institution and collected questionnaires after completion.

### 1.9.8    Data analysis

Descriptive statistics were used to describe the data and to measure central tendency namely the mode, median, and mean (Burns & Grove, 2011:385).

### 1.10    ETHICAL CONSIDERATIONS

The researcher applied ethical principles throughout the study because it was essential to establish a sound evidence-based practice for nursing (Grove *et al.*, 2013:159). The researcher upheld the ethical principles, namely, basic human rights, integrity, right to self-determination, confidentiality, anonymity, right to fair treatment, and protection from discomfort and harm (Johnson & Christen, 2014:124-153).

Ethical approval to conduct the research was obtained from the Health Research Ethics Committee of Stellenbosch University (HREC, Reference number: S15/10/256, Annexure C).

Permission was granted from the Western Cape, Department of Health (National Health Research: WC2016RP42 963, Annexure D), the Cape Peninsula University of Technology-Health and Wellness Science Research Ethics Committee (HW-REC 2017/H1, Annexure E) and the higher education institution in the Western Cape where the study was conducted (Annexure F).

### 1.10.1   Right to self-determination

The principle of self-determination means that a participant has the right to decide whether to take part in the study without any penalty (Grove, Burns & Gray, 2013:162). During the recruitment of students, the researcher, in collaboration with the fieldworker, placed considerable verbal emphasis on voluntary participation and by asking participants to sign a consent form. Therefore, the principle of autonomy was respected. The participant information form was presented to all participants. The information form consisted of the nature, purpose, aim, data collection methods and types of questions included in the questionnaires (Annexure A). Written consent was obtained from all volunteering participants after the researcher and fieldworker offered full verbal disclosure and after reading the details of the study. The researcher applied the ethical principle of voluntary participation by not coercing the participants because of her professional involvement and she explained her role to them. The researcher and fieldworker explained to the participants that they may withdraw at any time from the study without harmful consequences.

### 1.10.2   Right to confidentiality and anonymity

The research principle of privacy means that participants in research studies have the right to confidentiality and anonymity (Burns & Grove, 2011:117). The researcher applied the principle of confidentiality and anonymity by ensuring that no personal indicators such as their names, contact details or any other personal information appeared on the questionnaire. The researcher coded the questionnaires and all the information on electronic devices was kept in possession of the researcher.

During the recruitment phase, the researcher highlighted the fact that participation was entirely voluntary (they may withdraw at any time) and that participants will complete three anonymous questionnaires (Annexure B). The researcher also explained in the Participant Information Leaflet and Consent Form that anonymity and confidentiality will be guaranteed because no name, student number or contact details would be requested. The information gained from the study will only be used for the purposes of the study. The completed questionnaires were collected and kept in a sealed box during the data collection phase. The researcher complied with the Protection of Personal Information (POPI) Act, (POPI Act no 4,

2013) by recognising the principles regarding privacy as stipulated in the act. The principles of the POPI act were applied throughout the research process: permission to do the study (ethical approval), data collection, analysis, recording of the findings, and storage of information. Furthermore, the researcher will keep all the questionnaires for a minimum of five years in a locked cabinet. The only persons who will have access to the questionnaires are the researcher, supervisor, and statistician.

### 1.10.3   Right to protection from discomfort and harm

The study supports the ethical principles of beneficence and the right to be protected from unnecessary harm (non-maleficence) or discomfort, whether emotional, physical, psychological, spiritual, economic social or legal harm (Polit & Beck, 2012:152). The researcher followed this principle by protecting the participants as a "vulnerable population'' who may be influenced by the nurse educator's (senior member) expectations. Therefore, a fieldworker was used for the data collection process. The researcher protected the participants from discomfort and harm, whether it was emotional, physical, spiritual, social or legal harm. Participants were referred to the student counselling services at the specific higher education institution where the research was conducted, if they experienced distress during the completion of the questionnaires.

The researcher protected the fourth year participants by using a fieldworker. Therefore, she did not coerce any participant because of her previous professional involvement, which may cause emotional harm. The researcher also adhered to the ethical norms in research and nursing profession by explaining to the participants the purpose of the study. Those students who did not want to take part in the study were able to leave the venue without any comments by the researcher or the fieldworker. The researcher included the contact details of the student counselling service should they need to talk to any consultant in terms of distress they experienced.

### 1.10.4   Right to fair treatment

The right to fair treatment is based on the ethical principle of justice (Burns & Grove, 2011:118). Justice declares that participants in research should be treated fairly regarding the study's benefits and risks (Burns & Grove, 2011:107).

In this study, respondents were not selected based on their socio-economic status, race, class or gender and were not coerced into taking part in the study (Burns & Grove, 2011:110). They represent the student population and therefore respondents from various

ages, gender, ethnic backgrounds, and socio-economic status were included. All the participants were treated fairly and with the utmost respect.

## 1.11    OPERATIONAL DEFINITIONS

**Coping:**

Coping is the continuous adaptation of cognitive and behavioural attempts to manage the demands of the external environment (Lazarus & Folkman, 1984:141).

**Extended Curriculum Programme (ECP):**

The first year nursing learning programme is extended over two years with the aim to increase the graduation output (CPUT). The Department of Higher Education and Training supports the programme. The academic workload for these students is lighter because the first year content is spread over two years. However, the subjects remain the same as in the mainstream.

**Higher education institution:**

A higher education institution/provider is accredited by the HEQC and registered by the Department of Higher Education and Training. In addition, the South African Nursing Council, in terms of the Nursing Act (Act no 33 of 2005), also accredits it.

**Stressors:**

A stressor is any agent that creates stress (Selye, 1976:53) such as an ambient event that demands adaptive changes from the individual, which will challenge their existing coping strategies (Uys & Middleton, 2014:196).

**Student nurse:**

A student nurse is a person registered under section 23 of the Nursing Act (Act no.50 of 1978).

**Nursing education institution:**

A nursing education institution is accredited by the South African Nursing Council in terms of the Nursing Act (Act no 33 of 2005).

## 1.12    DURATION OF THE STUDY

Ethical approval from Stellenbosch University HREC was obtained on 23 March 2017. Thereafter, ethical approval was sought from the Institutional Ethical Review Board CPUT at the specific nursing education institution, and received on 13 February 2017. The Western Cape Department of Health gave their permission to conduct the study on 27 July 2016.

Data was collected during July and August 2017. The final thesis was submitted for examination on 4 December 2017.

## 1.13    CHAPTER OUTLINE

The study will proceed systematically around the following stages:

### Chapter 1:    Scientific foundation of the study

In this chapter, the researcher contextualises the study on stressors and coping strategies. The research methodology is briefly discussed and an in-depth discussion of the ethical considerations that the researcher upheld is provided.

### Chapter 2:    Literature review

The key concepts (stressors, coping strategies) and relevant theories are clarified in this chapter. In addition, organised and structured overviews of previous relevant research studies, as well as their findings, are discussed.

### Chapter 3:    Research methodology

This chapter describes the research methodology used in this study in depth.

### Chapter 4:    Results

The data analysis of the study is presented in this chapter.

### Chapter 5:    Discussion, conclusions and recommendations

The results of the study are discussed in this chapter. Limitations of the study as well as contributions for future research studies are included. Recommendations and a summary of the research conclude the study.

## 1.14    SUMMARY AND CONCLUSION

In this chapter, the background to the research problem was described. A preliminary literature review regarding the research topic on stressors and coping strategies together with the rationale were described.

Very few studies assess the presence of stress and coping in a multicultural environment. Furthermore, the majority of studies have been conducted in developed or Western countries and South African studies on stress and coping do not include undergraduate nursing students.

The research problem, research question, aims and objectives that guide the study was formulated.

The research methodology was briefly discussed in this chapter. However, the researcher will describe the research methodology in depth in Chapter 3. The ethical considerations that the researcher upheld were described. Finally, the duration of the study, chapter outline and significance of the study was discussed.

Stress and coping in undergraduate nursing students is a global concern. Therefore, if not managed correctly, it may result in poor academic performance as well as psychological and professional consequences. The current study has identified various stressors (eustress and distress) and different coping strategies.

# CHAPTER 2:
# LITERATURE REVIEW

## 2.1    INTRODUCTION

This chapter contains an overview of literature, reflecting the theoretical foundation of the study and how it assisted the researcher in formulating the research question, aims and objectives. The researcher gained new insights into the concepts of stress and coping and therefore explains how previous literature appears to be significant in the current study (Johnson & Christensen, 2014:89). The purpose of the literature review was to develop an understanding of what is known regarding the topic of stressors and coping strategies, as well as to describe what type of stressors undergraduate nursing students experience and the different coping strategies used by them.

## 2.2    SELECTING AND REVIEWING THE LITERATURE

The researcher conducted searches of the following databases: PubMed, Science Direct, Medline, Nexus, and Google Scholar. PsycInfo was also used because stress and coping is an aspect of mental health and elements of study in human psychology. The terms used for the current research study were "stress'' (academic stressors, clinical stress/stressors, environmental, occupational, job stress, job demands, anxiety, chronic stress, psychological, social, financial, personal, distress and eustress). All the above were used in different combinations.

Keywords for coping and coping strategies were mediating effect, adaptive reactions, adaptation, problem-based coping, behavioral coping and cognitive coping in different combinations.

Keywords for "nursing students'' were undergraduate nursing students, college students, clinical practice and educational programs etc. in different combinations.

## 2.3    CONCEPTUALISING STRESS AND COPING

### 2.3.1    Historical overview and background of stress and stressor

Stress is an unclear concept that has a number of different connotations and has been defined in different ways over years. Sir Walter Cannon's (1932) benchmark research on emotional stress not only explains the physiological arousal reactions to signs of danger, but

also the fight-or-flight coping pattern. According to Cannon (1932), stress and its "emergency response'' is extremely important to survival and adaptation.

Selye (1976:53) first scientifically defined stress as the body's reaction to any demand. Selye (1956) described three predictable stages the body uses to respond to stressors and it was called General Adaptation Syndrome (GAS) as described below:

- **The Alarm Stage** – During the first stage the body provides a burst of energy and activates its "fight–or-flight'' response. The body releases the "stress'' hormone adrenaline.
- **The Resistance Stage** – The second stage is that of resistance where an adaptation response returns the equilibrium.
- **The Exhaustion stage** – During the third stage, the stress has been persistent for a very long period.

Thus, stress was defined by Selye as a response reaction but he did not specifically address the concept of coping. However, it was Lazarus (1966), a social-personality psychologist, who developed and tested a transactional theory on stress and coping (TTSC). According to Lazarus and Folkman (1984:21), psychological stress is not just an event or response but a result of a transaction between a person and his/her environment. Therefore, stress can be defined as a relationship between the person's environment, the individual's demands, and an immoderate relationship with resources, where a person's well-being can indirectly be threatened (Lazarus & Folkman, 1984:21).

Matteson and Ivancevich (1987:34) defined stress as an adaptive response that depends on several aspects such as personality, external environment, the mental process, the event, and the physical demand on the individual. Adaptation means that an individual chooses to respond to changes in the environment (Roy, 2009:26). Adapting to stress is therefore an individualised activity and can be maladaptive in nature (Chipas, Cordrey, Floyd, Grubbs, Miller & Tyre, 2012:49). The maladaptive outcomes of stress may manifest physically (increase in heart rate), psychologically (anxiety) or socially (social isolation) (Cohen, Kessler and Gordon, 1995:3-18).

Two different categories of stress were identified by Selye (1976:53), namely positive stress (eustress) and negative stress (distress). Therefore, if a student experiences stress, this is not always seen as negative, because eustress may motivate students. Eustress improves the student's quality of performance and therefore nursing educators need to facilitate

eustress (Gibbons, Dempster & Moutray, 2011:621-622). Furthermore, there is a powerful correlation between poor academic performance and defective adjustment (Warbah *et al.*, 2007:600). Distress is more problematic because it delays learning and reduces the students' well-being and academic performance (Gibbons *et al.*, 2011:621).

Stress could therefore either have a positive or negative effect on students' thinking as well as learning capacity (Gibbons, 2010:1300). Ironically, most researchers focus on psychological distress and neglect positive experiences of stress (Gibbons, 2012:22). Another important negative effect of stress is the aspect of disengagement (depersonalisation), which means that nursing students distance themselves emotionally and cognitively from their work (Maslach & Leiter, 2008:498).

Stress can also have an effect on human performance. The Yerkes-Dodson law (figure 2.1) describes the relationship between an arousal (stimulation) and performance, initially formulated by the psychologists Robert M. Yerkes and John Dillingham Dodson in 1908 (Yerkes & Dodson, 1908). This law states that performance increases with mental arousal and therefore a certain amount of stress is necessary to perform at the ideal level. If the source of stress becomes overpowering or is seen as exceeding beyond one's capacity to cope, it will result in distress (Yerkes & Dodson, 1908). The optimal level of stress is called, "eustress" (Lazarus & Folkman, 1984:142). Stress can be the result of "too much or too little arousal causing harm to mind and body" (Schafer, 1992:14).
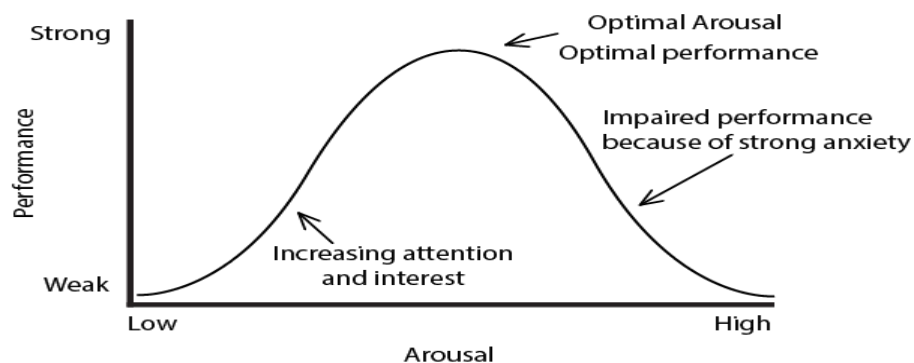


**Figure 2.1: The original Yerkes-Dodson curve**

(Gibbons, 2012:23)

14

### 2.3.2    The theoretical framework of stress and coping

This study's conceptual framework is built on Lazarus and Folkman's (1984; 1987) theory of stress and coping. Their theory was successfully applied in many studies over decades and they are the pioneers dominating research on stress and coping (Warbah *et al.*, 2007:597; Gibbons, 2010:1300). Lazarus and Folkman's theoretical framework serves as the foundation of the study and is also entirely applicable to undergraduate nursing student's circumstances.

According to the transactional model of Lazarus and Folkman (1984:293), there is a dynamic relationship between an individual and their environment; as the environment continuously changes, so does the individual and his/her relationship with the environment (Lazarus & Folkman, 1984:295). Lazarus and Folkman (1984:31-36) further call attention to the importance of two processes that reconcile the individual's relationship with the environment, namely, the cognitive appraisal (primary/secondary) and coping. Cognitive appraisal is being the process of categorising an encounter (Lazarus & Folkman, 1984:31).

The model further concentrates on the cognitive appraisal (thinking processes, memory, and meaning) of stressors from the perspective of how the individual is experiencing it and how the individual copes within the stressful environment in order to make sense of the experience. Cognitive appraisal is the student's evaluation of the individual significance of the event or the occurrence. The student will therefore act in order to resolve stress and cope with the situation. Challenge appraisal focuses on potential growth (Lazarus and Folkman, 1984:31). Specific types of primary appraisal include:

1. Irrelevant appraisal – when the event holds no significance for the individual.
2. Benign-positive appraisal – when the event produces a perceived pleasurable outcome.
3. Stress appraisals are harm/loss, threat or challenge (positive).

A secondary appraisal is made by the individual in response to the harm/loss, threat or challenge appraisal. It also refers to the assessment of skills, resources and knowledge that the individual possesses to deal with the encounter.

Furthermore, the adaption response is determined by the primary appraisal of the event and the secondary appraisal of available coping strategies. The Transactional Model of stress is visually displayed in figure 2.2.
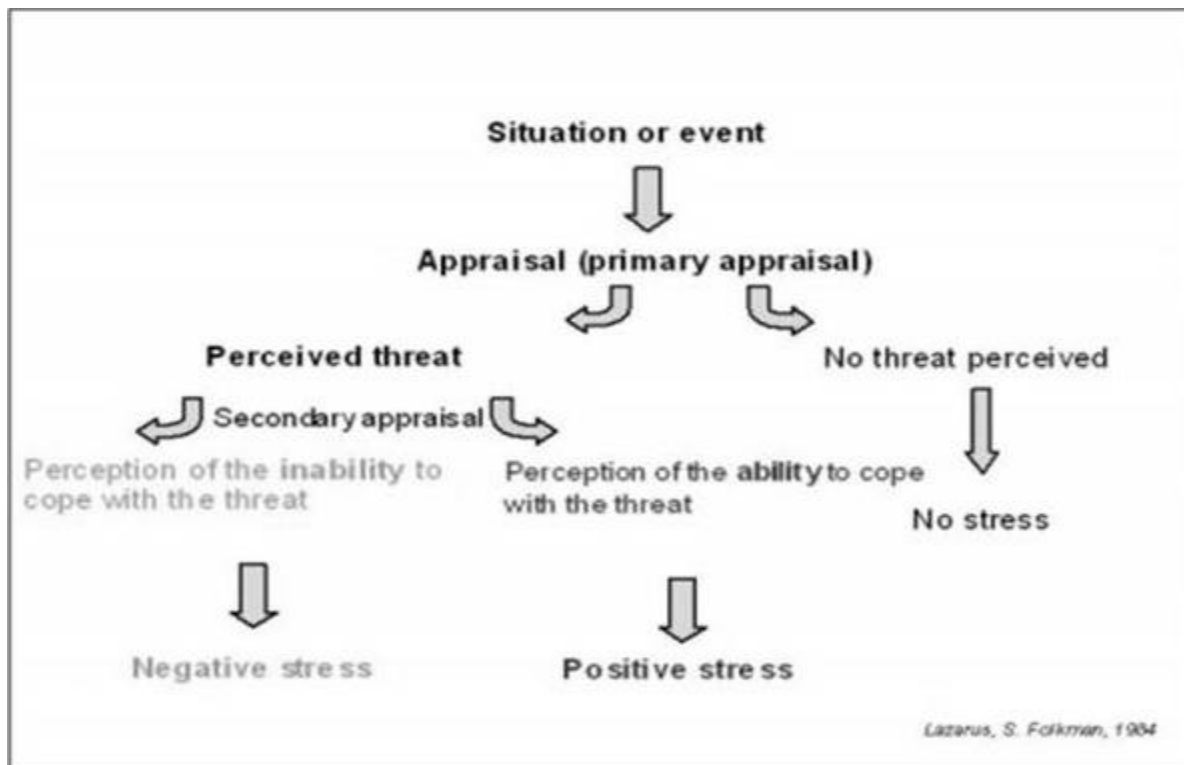
**Figure 2.2: Transactional Model of Stress**

(Lazarus & Folkman, 1984)

### 2.3.3    International developments and other stress-reducing characteristics

The World Health Organisation (WHO) defines health as a state of complete physical, mental, and social well-being and not only the absence of disease and illness (Hinkle & Cheever, 2014:6). However, this definition does not allow for any variation in degrees of wellness and illness (Hinkle & Cheever, 2014:6). Health is a comprehensive concept that affects an individual's life and well-being with respect to the following:

- Physical status
- Mental functioning
- Emotional well-being
- Social interpersonal relationships
- Spiritual and cultural fulfilment

(Magotlane *et al.*, 2014:2).

Furthermore, the field of positive psychology (mindfulness, pleasant life experiences) rests on assumptions that certain psychological traits are beneficial for an individual's well-being (McNulty & Fincham, 2012:101-106). An intervention study in French, where participants was assessed on the effects of positive psychology interventions (PPI), indicate that PPI

enhanced mindfulness and decreased psychological distress and depression (Antoine, Dauvier, Andreotti & Congard, 2018:140-147).

In the health promotion field, Aaron Antonovsky introduced the term 'salutogenesis' in his book *Health, Stress and Coping* (1979:123). Salutogenesis suggests that life experiences help shape one's sense of coherence. According to Aaron, a strong sense of coherence, helps mobilise resources to cope with stressors and therefore manage tension successfully. Furthermore, a strong sense of coherence determines an individual's movement on the health Ease/Dis-ease continuum (Mittelmark, Sagy, Ericksson, Bauer, Pelikan, Lindstrom & Espnes, 2017:7).

Salutogenesis is defined as "a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that one's internal and external environments are predictable and that there is a high probability that things will work out as well as can reasonably be expected" (Antonovsky, 1979:123).

Other stress reducing characteristics are hardiness, resilience and fortitude. Hardiness is the ability of a person to bear difficult conditions, while resilience is the capacity to quickly recover from difficult situations (Mittelmark *et al.*, 2017:7-10). Fortitude, on the other hand, is the strength of mind (Mittelmark *et al.*, 2017:7).

## 2.4    STRESS

### 2.4.1    Sources of stress

#### 2.4.1.1 Sources of stressors in undergraduate nursing students

A stressor is any agent that creates stress (Selye, 1976:53). Stressors are also defined as transient or an ambient experience that demand adaptive changes from a person and that challenge their existing coping strategies (Uys & Middleton, 2014:196). The stressors can include a range of events, situations and experiences that the person perceives as stressful (Uys & Middlleton, 2014:196).

Nursing students are exposed to high demands of stress to a level where they still can cope with these demands. However, when these demands push them beyond their capability to cope and their tolerance is exceeded, permanent or temporary damage can occur (Louw & Edwards, 1997:609). Therefore, the amount of stress students experience influences both their mental and physical health (Michalec, Diefenbeck & Mahoney, 2013:317). Previous

studies classified stressors as consisting of theoretical and practical components (Pitt, Powis, Levett-Jones & Hunter, 2012:903; Khater *et al.*, 2014:194). These two components practically cover the bulk of the nursing education stressors. However, other researchers mention a third stressor, namely, external stressors such as financial difficulties and daily life disturbances (Jimenez, Navia-Osorio & Diaz, 2010:442; Shaban *et al.*, 2012:204). Academic stressors, such as assignments and examinations, are highlighted by most studies (Jimenez *et al.*, 2010:442; Gibbons *et al.*, 2011:622; Shaban *et al.*, 2012:204). High levels of anxiety during students' training may have a negative influence on their learning, affect the quality of patient care, and prevent nurses from being successful in their professional careers (Shaban *et al.*, 2012:204).

Dr Chris Gibbons is an expert in the field of stress and coping. He wrote many articles on this specific topic. Gibbons indicates that other researchers in the field of stress and coping have identified a number of sources of distress with little attempt to understand sources of eustress to enhance performance and well-being in nursing students (Gibbons, Dempster & Moutray, 2008:282; Gibbons, Dempster & Moutray, 2009b:1095). The literature review also identified that many studies focus on distress as the only identifiable source of stress (Watson, Gardiner, Hogston, Gibson, Stimpson, Wrate & Deary, 2008:270-278; Pisanti, Van der Doef, Maes, Lazzari & Bertini, 2011:829-837).

Therefore, in this study, the Index of Sources of Stress in Nursing Students (ISSN) will be used to measure the course demands and students' experiences that are rated as both sources of eustress and distress (Gibbons *et al.*, 2009b:1100). The ISSN offers important information when reviewing course changes to nursing programmes (Gibbons *et al.*, 2009b:1100). The traditional view of rating a stressor only as negative (distress) is now a challenge because it is increasingly important to perceive stressors as opportunities for personal achievement (Gibbons, 2010:1301). According to Zhao, Lei, He, Gu & Li (2014:7) stress might not be a stressor if the person has enough confidence and therefore changes his/her perception of the stressor as a positive power.

### 2.4.1.2 Occupational/Academic stressors

The Job-Demand-Control-Support Model (JDCS) by Karasek and Theorell (1990:89) recognises the role of various occupational stressors (work demands) and the moderating role played by perceived control and support. There is a relationship between these moderators regarding the perceived source of stress and their effect on well-being. This theoretical model is one of many used to strengthen our understanding of work stress and its negative implications (Koekemoer & Mostert, 2006:87). It has only recently been tested by the Vice Deans for Education of various international universities (Finland, Slovenia, and

Australia). They found it suitable for evaluating the well-being of undergraduate nursing students (Tuomi, Aimala, Plazar, Starcic & Zvanut, 2013:692).

The JDCS model can be applied to determine the study behaviour of nursing students by combining the four components, namely, low strain (stress), passive, high strain, and high active study behaviour (Karasek & Theorell, 1990:89). Active study behaviour can be seen as challenging and an opportunity to grow (Karasek & Theorell, 1990:89). By studying passively, a student learns to be helpless (Karasek & Theorell, 1990:89). Passive study behaviour is when students do not experience their studies as demanding and where no control is exercised over their studies (Tuomi *et al.*, 2013:693). The risk exists that students may fail to recall the knowledge and skills gained (Tuomi *et al.*, 2013:693). High strain study behaviour is when students experience their studies as demanding, but there is no control over it (Tuomi *et al.*, 2013:693). Students will be more prone to burnout or depression. In high active study behaviour students have the necessary control (positive coping strategies) over their studies and see their studies as demanding (Tuomi *et al.,* 2013:693). Therefore, the highest form of active learning is when students have high control over their studies and simultaneously see their studies as demanding (Karasek & Theorell, 1990:89).

### 2.4.1.3 Clinical stressors

Undergraduate nursing students are considered part of the workforce due to the nursing shortage in South Africa. This can cause additional stress, since they are responsible for high-level clinical care without the necessary knowledge (Halperin & Mashiach-Eizenberg, 2013:1). Recent studies indicate that clinical practice is a major source of stress (Shaban *et al.*, 2012:209; Khater, *et al.*, 2014:200-202). Stressors from the clinical environment include humiliation as well as lack of skills and interpersonal relationships (Shaban *et al.*, 2012:207; Khater *et al.*, 2014:198). However, it was also found that, although students experienced stress during their clinical practice, they considered the nursing profession as challenging as they gain self-confidence through dealing with their stress thus enhancing their coping ability (Shaban *et al.*, 2012:208). Therefore, in this context, stress was positive (eustress).

A recent study amongst Macao nursing students indicates that the multicultural and complex clinical environment had an impact on their stress (Liu, Gu, Wong, Luo & Chan, 2015:131). Furthermore, the first and most common stressors encountered by Macao nursing students were due to stress from the clinical dimension such as "fear of making a mistake in the clinical placement and having too much clinical responsibilities'' (Liu *et al.,* 2015:131).

The clinical environment may affect academic learning positively or negatively, because the student learns at the patient's bedside (Moridi, Khaledi & Valiee, 2013:162). The aim of this

study is to explore stressors in order to identify students' stressors and coping strategies so that they can be assisted with coping and adaption.

### *2.4.1.4 Personal stressors*

Personal stressors need further enquiry according to a longitude study done on coping, stress, and personality in Spanish nursing students (Fornes-Vives *et al.*, 2015:319). However, many studies extensively investigated academic stress in nursing students (Jimenez *et al.*, 2010:442; Gibbons *et al.*, 2011:622; Shaban *et al.*, 2012:204).

A quantitative study of the factors associated with attrition at this specific institution (West, 2013:58) identified personal stressors as one of the main reasons for the high attrition rate among undergraduate nursing students. A nursing student, while studying, also had to take care of a parent who was ill, which may cause more stress (West, 2013:58). Family responsibilities such as taking care of dependent children, parents, maintenance of a spousal relationship, and the operational needs of a home often leave the student with little time to study (Bednarz, Wayne, Michigan & Doorenbos, 2010:257). Furthermore, these demands on students can become even more acute when they are the primary financial supporter, single parent or both (Bednarz *et al.*, 2010:257).

## 2.5    BURNOUT

Stress and burnout are common in people-focused occupations, such as nursing. Maslach and Leiter (2008:498) define burnout by characterising three dimensions, namely, emotional exhaustion, depersonalisation, and low levels of personal accomplishment. A recent study amongst undergraduate nursing students in the United States, found that students could anticipate experiencing burnout at some point during their career (Michalec *et al.*, 2013:317).

Burnout is not listed as a psychological/psychiatric condition in the Diagnostic and Statistical Manual of Mental Disorder (DSM-5, 2013) as was released by the American Psychiatric Association during their annual conference. There are no clear diagnostic criteria for burnout as a "condition" in the manual. However, there are criteria in the manual for Anxiety and Depressive Disorders (DSM-5, 2013:155-162). Burnout does have an ICD-10 code (Z23), but is mostly used for reimbursement purposes.

## 2.6    COPING

Lazarus and Folkman (1984:141) define coping as the continuous adaptation of one's cognitive and behavioural attempts to manage the demands of the external environment. Lazarus mentions that, although the individual interacts with the environment, it is still the individual who will make the appraisal of being threatened (Lazarus, 1999:12). Transactional

coping is regarded as the transaction between a person and his/her environment and may differ due to personal resources or characteristics (Lazarus, 1999:13). Coping is seen as a continuous process of change that depends on the situational circumstances (Lazarus, 1984:50).

**2.6.1 Problem solving versus emotional-focused coping strategies**

The process of coping has two major functions: problem-focused and emotional-focused coping. Problem-solving coping strategies are more effective than avoidance coping (Shaban *et al.,* 2012:204). Research regarding emotional intelligence of nursing student has shown that those with high emotional intelligence used problem-focused coping, which enables them to cope better with stress (Por *et al.*, 2011:855). Problem-solving coping deals directly with the problem, while avoidance coping is emotionally based (Evans & Kelly, 2004:473). However, an ineffective way of coping is when students react emotionally to stress, which leads to feelings of exhaustion (Evans & Kelly, 2004:473; Gibbons, 2010:1300). Avoidance coping and low self-esteem are related to psychological distress (Gibbons, 2010:1300; Chipas *et al.*, 2012:49).

**2.6.2 Multicultural perspectives on stress and coping**

Wong and Wong (2006:2) broaden our understanding of coping strategies by analysing how people from different cultures respond to stress. They argue that an individual will cope efficiently when they adapt to the context of the stressor and to cultural norms and behaviour. Wong and Wong (2006:2-6) postulated that research on stress and coping portrayed ethnocentric bias because very little cross-cultural coping skills were taken into consideration. Consequently, the researchers focus on the same coping strategies and continue to ignore other coping strategies (Wong & Wong, 2006:5). A recent study on stress and coping in Thailand emphasised the importance of taking nursing students' socio-cultural background into account (Klainin-Yobas *et al.*, 2013:1296).

The implication of this research is that the same coping response that works in a particular situation, for example at home, no longer works in a different situation, because each environment has its own indirect rules of coping with difficulties (Wong & Wong, 2006:19-22).

The developing of the Coping Schemas Inventory Model is more comprehensive and includes multicultural perspectives on stress and coping (Wong *et al.*, 2006:43). This model also includes major coping strategies such as meaning, self-restructuring, and tension-reduction (Wong *et al.*, 2006:69). There are nine coping schemes. Three were related to

problem-solving coping. These three schemes are situational, self-restructuring, and active emotional coping (Wong *et al.*, 2006:63). Self-restructuring coping means a person focuses on changing cognitions and behaviours, while with active emotional coping a person focuses on the emotional reaction without changing the situation or solving the problem (Peacock, Wong & Reker, 1993:69). A person engages in a tension-relieving activity to reduce their stress (Wong *et al.*, 1993: 69).

For example, when a person relies on God to deal with a problem, the focus is on religious coping (Wong *et al.*, 2006:70). According to Hsiao, Chien, Chiang and Huang (2010:1612), nursing students in Taiwan possess strong spirituality and experience less stress in the clinical field. On the other hand, practical social support means a person depends on others to solve the problem (Wong *et al.*, 2006:69).

It is important to consider a person's ethnic background when understanding coping with stress (Wong & Wong, 2006:19-22). They further argue that a country's historical background also affects how people cope (Wong & Wong, 2006:6-7).

Aaron Antonovsky repeatedly indicated the importance of developing a Sense of Coherence (SOC) in culture. Antonovsky never grouped his ideas about culture's role in salutogenesis (Benz, Bull, Mittelmark & Vaandrager, 2014:17). When it comes to the culture/health relationship, a solid empirical knowledge base has been built since he died (Benz *et al.*, 2014:21). Two aspects in particular are mentioned here: the experience of cultural integration vs discrimination (being part of a minority group); and the experience of cultural stability vs instability (Benz *et al.*, 2017:21). Antonovsky recognised taking part in social activities as important to the well-being of a person (Benz *et al.,* 2014:21). Consistent with Aaron Antonovsky's findings, Braun-Lewensohn and Sagy (2011:300-310) observed that living in a stable community within a multicultural environment protected youngsters from stressors.

## 2.7    RELATIONSHIPS BETWEEN STRESS AND COPING

Undergraduate students draw on many coping strategies when they experience stress, but mostly in an ineffective way, such as avoidance (Gibbons, 2010:1304). Avoidance coping will therefore increase emotional exhaustion (Gibbons, 2010:1305). Effective coping strategies help students to perform remarkably better in their studies and helps relieve students' stress (Khater *et al.*, 2014:195).

When someone perceives an event as a stressor, s/he will draw on different coping strategies (Lazarus & Folkman, 1984:141-174). Lazarus and Folkman (1984) describe a

cognitive approach to stress. They identified 24 ways of coping grouped as two major coping strategies: problem-solving and emotional-focused coping (Wong, Reker & Peacock, 2006:14; Gibbons, 2010:1300).

### 2.7.1    Individual resources, personality and behaviour factors in stress and coping

Although the focus of this study is not on factors such as personality, emotional intelligence, locus of control, and self-efficacy, the researcher acknowledges the importance of these individual differences in nursing students. A stressful situation involves awareness of certain demands that exceed one's resources, as appraised by the individual (Gammon & Morgan-Samuel, 2005:162).

### 2.7.2    Personality

Academic performance is affected by the personality and behaviour of a student (Pitt *et al*., 2012:908). Greater psychological distress is found in nursing students with neuroticism and introversion (Warbah *et al*., 2007:600; Fornes-Vives *et al*., 2015:320-322). A strong correlation was found between neurotic personality traits and emotion-oriented coping, emotional exhaustion, and psychological morbidity (Watson *et al*., 2008:1540; Fornes-Vives *et al*., 2015:320-322). Another important predictor of stress is a positive self-esteem (Edwards, Burnard, Bennett & Hebden, 2010:78).

### 2.7.3    Emotional intelligence

Emotional intelligence was positively related to the well-being of a person and an important rescue factor in stress (Karimi *et al*., 2013:176, Codier & Odell, 2014:611). Emotional intelligence is positively related to adaptive coping and negatively linked to maladaptive coping (Por *et al*., 2011:855). According to Gardner (2006:58), people with high emotional intelligence are more skilful to cope better. In addition to this, Gardner (2006:58) identified nine forms of emotional intelligence. In his multiple intelligence theory, he mentions two primary forms of multiple intelligences, namely, interpersonal and intrapersonal intelligence. Therefore, if a person has interpersonal intelligence it may help when the environment is unfamiliar (Gardner, 2006:220).

### 2.7.4    Locus of control

Literature studies indicate a positive relationship between internal locus of control and the nursing students' mental health status (Karayurt & Dicle, 2008:926; Saadat *et al*., 2012:530). An external locus of control exists when an individual believes that good or bad things happening to him/her can be due to luck, chance or fate (Karayurt & Dicle, 2008:919). An internal locus of control means that individuals recognise that factors within themselves, for

example own behaviour and characteristics, determine events (Karayurt & Dicle, 2008:919). Stress can be relieved by an internal locus of control. Moreover, an individual's emotional well-being is positively related to an internal locus of control (Karayurt & Dicle, 2008:919).

### 2.7.5    Self-efficacy

Self-efficacy is the judgement that one has regarding your capabilities (Bandura, 1997:11). Persons with high self-efficacy will achieve their goals because they trust their competences (Bandura, 1995:178). They adapt easier in different situations and environments (Bandura, 1995:178). However, individuals with low self-efficacy are more prone to anxiety and have insufficient coping abilities (Bandura, 1995:178). According to Loo and Choy (2013:86) there is a positive association between self-efficacy, academic performance, and emotional arousal when mastery is experienced. In addition to this, Gibbons (2010:1299) mentions that educators' feedbacks to students enhances self-efficacy and therefore provide the necessary support.

### 2.7.6    Emotions

Human emotions affect a lot of human behaviour and are present in interpersonal as well as personal behaviours (Martin & Daniels, 2014:516). Through emotion, protective measures are triggered to oppose situations that signify danger, threat or loss. Emotions are believed to have an adaptive or nurturing function (Martin & Daniels, 2014:516). Adaptive functions of emotions include attention shift, motivation arousal, social communication, and precipitating behaviours (Stanley & Burrows, 2001:8). This implies that during a transactional encounter within the environment, an emotion directs the individual's attention towards a more relevant event and away from what is less relevant. Through cognitive interpretation of the event emotion is elicited, activating affective and behavioural responses. These serve to resolve the situation, thus promoting adaptation.

As a result, emotions allow nursing students to communicate the impact events have on them verbally, non-verbally, and behaviourally. However, dysfunctional emotions may arise from interpretations of their learning environment. Anxiety is one of the emotions that arise from perceived threat and may interfere with a student's functioning thus resulting in inability through aggression (Lim, Bogossian & Ahern, 2010:22). Lazarus (1999:34) identifies 15 emotions that include anger, anxiety, hope, and relief. Each emotion a person experiences informs us about the adaptation transaction and how this person copes with stress (Lazarus, 1999:34). Folkman (2008) mentioned at a conference that a person may perceive positive and negative emotions at the same time during stressful episodes and these emotions are related to the coping process.

## 2.8 CONCEPTUAL MAP

The conceptual map for this study is presented in a diagram (figure 2.2) followed by an explanation of concepts.
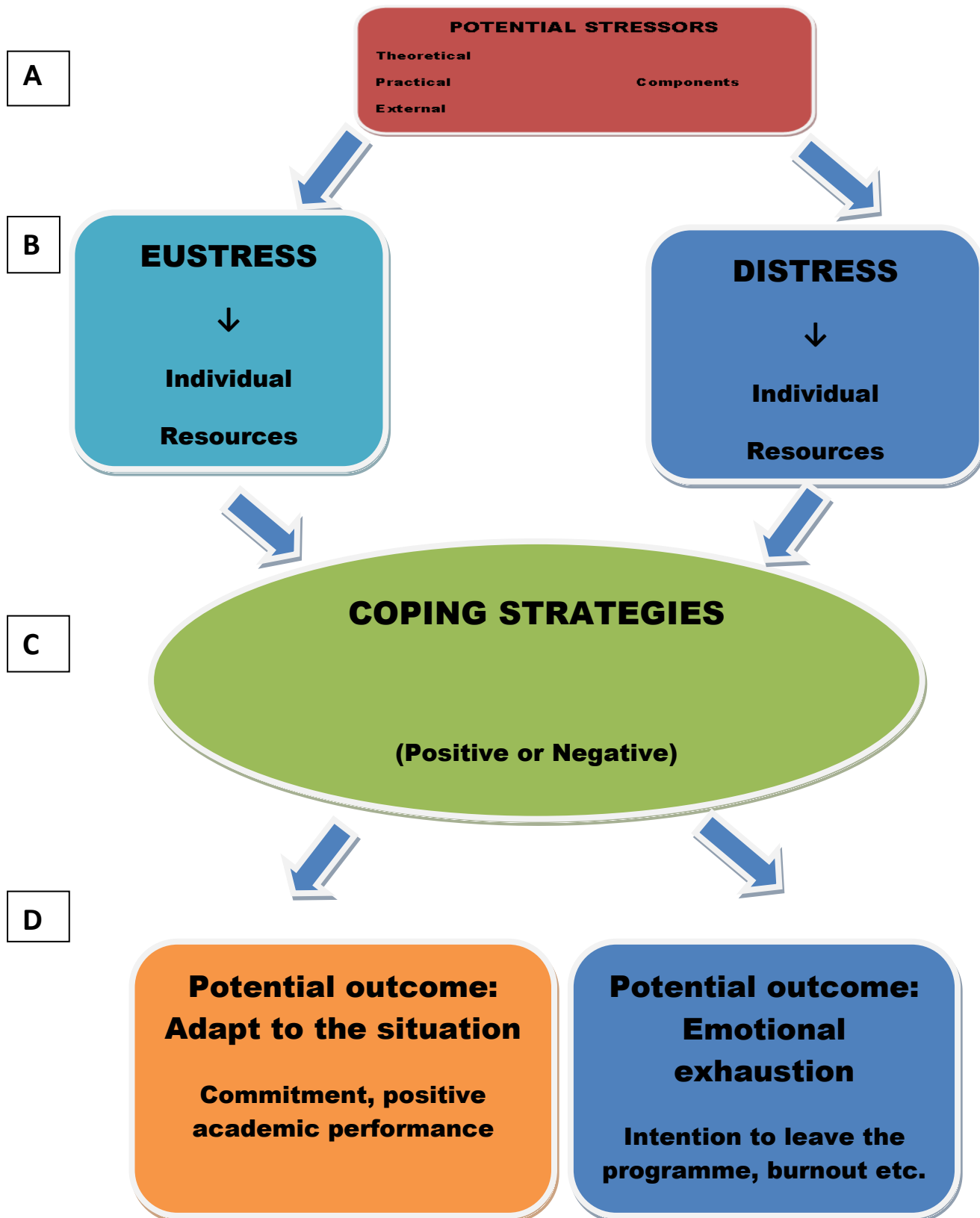
**Figure 2.2: Stressors and coping strategies in undergraduate nursing students (illustrated by researcher)**

The conceptual map contains four levels of impact for stressors and coping strategies that undergraduate nursing students may experience. Each level is discussed below.

**Level A**: Students are exposed to multiple stressors, namely, academic, clinical, and external stressors such as financial difficulties (Pitt, Powis, Levett-Jones & Hunter, 2012:903; Khater, Shaban, Khater & Akhu-Zaheya, 2012:204; Akhu-Zaheya & Shaban, 2014:194).

**Level B**: Stressors can be an uplifting experience, which may improve a student's performance (eustress). However, for some students, stressors may be a hassle (distress) and cause low levels of personal accomplishment. Students have individual resources such as emotional intelligence, self-efficacy, and locus of control, from which they can benefit when they experience stress.

**Level C**: Undergraduate nursing students can experience distress at some moment in time during their training and will draw on different coping strategies. Some of these coping strategies may be negative, such as avoidance coping, or positive, for example problem solving.

**Level D**: The outcome of stress may be positive or negative. Negative consequences of prolonged stress may cause a drop in retention, increase the attrition rate, psychological morbidity, and burnout (Watson, Deary, Thompson & Li, 2008:1541).

However, nursing students may experience stress as positive and therefore be self-confident about completing their studies successfully (Khater *et al.*, 2014:201).

## 2.9     SOUTH AFRICAN PERSPECTIVE

### 2.9.1    The educational environment and organisational system

Students who are unfamiliar with the higher education environment are unable to apply prior experience, knowledge, and skills to engage with their studies (Loo & Choy, 2013:86). The work environment can be demanding and can consequently threaten students' emotional well-being (Watkins *et al.*, 2011:2). Emotions students experience within this environment are related to outcomes such as academic success and adjustment (Saklofske, Austin, Mastoras, Beaton & Osborne, 2012:251). It is important to create a safe and respectful environment where dialogue can take place between students, heads of departments, and educators without conflict and disrespect, but with the necessary boundaries (Morissette & Doty-Sweetnam, 2010:521).

A well-constructed educational programme can create a positive learning environment and engage students because it communicates the appropriate social and interpersonal boundaries (Morissette & Doty-Sweetnam, 2010:520). Appropriate classroom behaviour is clearly explained in a well-constructed educational programme (Morissette & Doty-Sweetnam, 2010:520). A safe therapeutic environment can decrease students' stress and improve their emotional well-being (Morissette & Doty-Sweetnam, 2010:521). Transparent policies and procedures are also important (Morissette & Doty-Sweetnam, 2010:523). Policies, procedures, and protocols provide structure, contribute to a sense of security, and reduce stress (Morissette & Doty-Sweetnam, 2010:523). Higher education institutions need sufficient resources to improve the learning process and to decrease both educators' and students' stress.

According to Lazarus (1999:35), people respond differently to the learning environment because they have different goals, personalities, resources, and psychological characteristics. However, a student's overall well-being can be threatened due to the lack of role models and the demanding work environment (Watkins *et al.*, 2011:1-5).

### 2.9.2    Nursing education transformation in South Africa

The South African Nursing Council (SANC) is the statutory body that regulates nursing education in South Africa according to the Nursing Act no. 33 of 2005 (Republic of South Africa, 2005). Nurse educators and nursing students in higher education institutions are challenged by the South African government to subscribe and contribute to economic growth as well as the needs of South African communities (Zepke & Leach, 2010:167; Seekoe, 2014:1). Due to the government's transformation processes, higher education institutions had to change their vision and mission (Seekoe, 2014:1). This means that undergraduate nursing students must meet the healthcare challenges associated with transformation. In addition, multiculturalism, multilingualism, and multiracialism are now part of the higher education system (Seekoe, 2014:1).

The South African Qualification Authority's (SAQA) Act no. 58 of 1995 (Republic of South Africa, 1995) strives towards fully developing learners for their place in the nursing profession. In South Africa, nursing education has undergone fundamental changes and the NQF emphasises self-management as one of the critical cross-field outcomes (Meyer, Mabaso, Lancaster & Nenungwi, 2007:208). Therefore, it is important for students to work with other members of the multi-disciplinary team, communicate effectively, think critically and analytically, and solve problems. There are limitations, because basic learning skills are poorly developed and the students' inability to manage themselves leads to anxiety and

stress (Meyer *et al.,* 2007: 208). Hence, a nurse educator is responsible for students' emotional growth as well as setting a psychological climate conducive to learning.

SAQA is a statutory body, mandated by legislation (Act no 58 of 1995), to oversee the development and implementation of the National Qualification Framework (NQF). According to the NQF Act no. 67 of 2008 (Republic of South Africa, 2008), the NQF consists of 10 level descriptors. These descriptors describe the learning achievement (cognitive competence) at a particular level of the NQF. Levels 5 to 7 comprise undergraduate qualifications.

The Higher Education Qualifications Framework (HEQF) Act no. 101 of 1997 (Republic of South Africa, 1997) is a framework for all the qualifications. It is a central design to meet higher education challenges by 2021. Furthermore, the Higher Education Qualification Sub-Framework (HQSF), as revised in 2013, now informs all higher education institutions regarding the process of alignment of their programmes (Republic of South Africa, 2001). Therefore, it is important for professional nurses to conduct their practice from a scientific base, integrating theoretical knowledge gained in the classroom with practice-based skills gained in the clinical environment.

### 2.9.3    The school system in South Africa

Despite South Africa spending a fair amount of money on education, the school system remains weak and the grade twelve exam results are unacceptably poor (Modisaotsile, 2012:2). Basic learning skills and computer literacy are areas that need to be addressed through the school system, as these are minimum requirements for higher education. Some schools face many challenges and lack infrastructure such as laboratories, libraries, and learning centres (Masango, 2014:728). Therefore, students matriculate without being fully prepared to succeed in higher education and this may cause them stress when in a higher education environment with all its challenges (Masango, 2014:728).

### 2.9.4    Attrition rate

Masango (2014:721) describes attrition in the nursing profession as "wastage, termination, dropout and turnover". Specific to nursing education, attrition refers to students leaving nursing education programmes, irrespective of their motivations. Not all students complete the prescribed requirements (Pitt *et al.*, 2012:909). The shortage of nurses worldwide, the complex healthcare environment, cultural diversity, and the high attrition rate could negatively impact nurses' health (Halperin *et al.,* 2013:1).

The number of undergraduate nursing students who do not complete their studies successfully is of great concern, both nationally and internationally (Pitt *et al.*, 2011:903;

Beauvais, Stewart, DeNisco & Beauvais, 2013:1; Masango, 2014:721). In the South African context, many undergraduate nursing students fail to complete their studies and a large amount of their own, parents', and the government's money is wasted as a result of the dropout rate or students repeating a year (Garraway, 2015).

Stress experienced in the nursing profession could contribute to the students' decisions to withdraw from the training programme (Orton, 2011:5). The South African Nursing Council's statistical data indicate an inability to cope with the academic requirements as a major factor contributing to the high attrition rate amongst undergraduate nursing students in South Africa (West, 2013:60). Scientific knowledge about stress will help nurse educators and undergraduate nursing students to implement effective coping strategies in their programmes (Khater *et al.*, 2014:202).

### 2.9.5    Financial difficulties and the *#FeesMustFall* movement in South Africa

Financial issues are frequently stated by college students as sources of stress. Poor students in South Africa suffer immense financial stress (Machika & Johnson, 2014). A tertiary education for poverty-stricken students is an opportunity to change their economic status at both a personal and family level. In addition, improving their economic status at these levels become particularly difficult to achieve when economic conditions negatively affect their ability to achieve academic success. Without adequate financial resources available in institutions of higher learning, students' experiences of poverty invariably are only marginally alleviated (Machika & Johnson, 2014)

Many students from low-income households do not have enough funds to afford proper nutrition and this influences their academic performance negatively (Sekhukhune, 2008:20-40). Five of the participants in Mmaselloe Sekhukhune's empirical research had to drop out of their studies because the National Student Financial Aid Scheme (NSFAS) never paid their tuition fees. Research published by Jones, Coetzee, Bailey and Wickhman (2008:6-7) supported these findings because a lack of financial resources account for one of the most important reasons for students dropping out of university. However, according to international research literature, it does not explain why so many students who are not financially challenged also drop out of university.

*#FeesMustFall* was a student-led protest movement that began in the middle of October 2015 in response to an increase in student fees at South African universities. However, according to Davids and Waghid (2016), protest at South African universities, did not suddenly start with the *#FeesMustFall* movement. Students at poorer institutions have been protesting routinely against the rising fees and the costs of higher education. Their protests

were ignored and frequently did not make headlines beyond the regional newspapers. The most recent *#FeesMustFall* protests have involved students from both historically advantaged and historically disadvantage universities.

### 2.9.6    The trauma due to campus protest – "the new normal"

Universities are frequently defined as places of debate and learning. Nevertheless, this is no longer the situation at many South African institutions. At present, educational institutions have become frightening, unpredictable and, at times, very unsafe (Evans, 2017). Petrol bombs have been thrown into lecture theatres; students' buses were set alight, and cat-and-mouse games between police and protesters took place while shock grenades exploded in the background (News 24). According to Jaco Nel, spokesperson of the National Tertiary Education Union (NTEU), it is now no longer the normal work stress but also emotional stress to which students are exposed. Students and staff are traumatised and confused by the situation on campus.

### 2.10    INSTITUTIONAL RESPONSE

### 2.10.1   The inter-institutional collaboration between a nursing college and university

The nursing college concerned currently offers a Bachelor of Technology (BTech) Nursing Science programme that was accredited by the South African Nursing Council. It replaced the Diploma in Nursing (General, Psychiatry, Community and Midwifery) from January 2014. The nursing college and its satellite campuses in the rural areas collaborate with the University of Technology as part of the restructuring of certain higher education institutions in the Western Cape. This is a unique situation (Houseman & Balintulo, 2005). Nationally the change will be to a Bachelor in Nursing and Midwifery degree. Changes from the curriculum of the Diploma in Nursing (R425) to the current BTech degree may cause stress and an inability to cope within the demanding academic environment. The BTech students have several extra curriculum subjects, for example pharmacology. This differentiates the BTech programme from the previous Diploma in Nursing (R425) that is currently being phased out because the workload of the BTech students is higher and there is an increased emphasis on critical thinking. The researcher acknowledges the stressors of diploma students.

### 2.10.2   Student support and development

There is a correlation between peer support and nursing students' well-being. Peer support is a resource for coping and can be incorporated in learning and teaching activities (Gibbons *et al.*, 2010:1299). Academic support also contributes to nursing students' emotional well-being and promotes their self-esteem. Although social support from family and friends

regarding stress management was extensively studied, support from faculty and peers remains understudied (Reeve, Shumaker, Yearwood, Crowell & Riley, 2013:419).

According to Gibbons (2012:30), interacting and networking among students are important. Examples are class exercises, rotating group composition, group activities, and supporting societal events. Researchers investigating the relationship between social support and psychological well-being, focused on the positive effect of social support (Lincoln, 2000:231). Hence, negative interaction in one's social support may cause distress because they may discourage the expression of feelings due to someone making critical remarks, interfering in private affairs, and failing to provide support as promised (Lincoln, 2000:231-252).

The Quality Enhancement Project (QEP) is a five year project of the Council of Higher Education (CHE, 2015). The focus of this project is on the improvement of teaching and learning. In the report, academic support entails helping students to successfully execute their different tasks required to succeed (CHE, 2015: 113-128). Support to students includes training in study skills, additional support related to tutoring, enhancing the learning environment, support to at risk students, efforts to identify students' needs, and non-academic support such as counselling (CHE, 2015:113-128).

### 2.10.3  Gender

Nursing in South Africa is dominated by female nursing students. According to the South African Nursing Council's (SANC) website, the amount of female nursing students registered on the 13th of December 2017 at the specific survey site, were 397 in relationship to 90 males.

### 2.11    SUMMARY AND CONCLUSION

It is evident from the above literature review that stress in undergraduate nursing students is a universal phenomenon and that their coping strategies differ. The transition from school into higher education brings additional stressors because students have to adapt to the new environment and institutional cultures, which requires adequate coping strategies.

Undergraduate nursing students are expected to handle different kinds of stressors, namely, academic, clinical, and personal stressors. The healthcare profession and educational programmes are geared towards providing skilled and competent graduates. However, research studies showed that an increased amount of distress may affect the overall well-being, functioning, and performance of nursing students. Not all the undergraduate nursing students have the ability to cope adequately with stressors. Therefore, nursing educators need to provide culturally appropriate interventions to help them cope more effectively.

In this chapter an overview was given on the literature about stress and coping strategies among undergraduate nursing students at a higher education institution in the Western Cape. Findings from international research studies on stress and coping strategies could therefore not be relevant to undergraduate nursing students in South Africa. The literature review of the present study, significantly extents prior research on stress and coping strategies because of the South African context.

An in-depth discussion of the research methodology regarding the above mentioned study will follow in Chapter 3.

# CHAPTER 3:
# RESEARCH METHODOLOGY

## 3.1    INTRODUCTION

This chapter is an in-depth discussion of the research methodology that was applied during the study to identify stressors and coping strategies among BTech undergraduate nursing students. Furthermore, this chapter outlines the aim and objectives of the study, research design, measuring instruments, as well as how the data was collected and analysed.

The researcher also discussed how the ethical principles were upheld throughout the data collection process to ensure ethical practice and scientific rigour.

## 3.2    AIM AND OBJECTIVES

The aim of this study was to identify stressors and coping strategies among BTech nursing students at a Higher Education Institution in the Western Cape Province.

The following objectives were to:
- Identify stressors (distress, eustress) as experienced by these students;
- Identify the coping strategies used by these students to relieve their stress;
- Determine the association between the stressors and the method of coping strategies used by the students.

The following hypothesis was tested: students experience distress or eustress and are able to cope with stress.

## 3.3    STUDY SETTING AND STUDENTS' PROFILE AT SURVEY SITE

The study was conducted at a nursing higher education institution in the Western Cape in South Africa.

Students at higher education institutions in the Western Cape are mostly from disadvantaged backgrounds and struggle with the demands of a higher education environment. A study about first year nursing students' experiences that influence their academic performance at this nursing education institution revealed that the problems faced by students are multifaceted (McLachlan, 2008:82). Difficulty to adjust to the learning environment, diverse social backgrounds, and the stress experienced during phases of

independent student life, including personal and social problems, were identified as factors that influence students' academic performance (McLachlan, 2008:92). Nursing students' profiles mean that their everyday needs require more effort in order to meet educational demands (Gibbons *et al.*, 2008:282-289).

## 3.4    RESEARCH DESIGN

A research design is the plan, or blueprint, of how the study will be conducted (Burns & Grove, 2011:49). A descriptive, cross-sectional research design with a quantitative approach was the most appropriate design to answer the research question. In cross-sectional research, the data is collected from the participants at a single point in time (Johnson & Christensen, 2014:403). The descriptive design aims to identify problems, gain more information about characteristics within a particular field of study, and provide the researcher with a depiction of a specific situation as it naturally happened (Burns & Grove, 2011:256).

The design was used to identify stressors and coping strategies as well as to predict the effects stressors have had on the frequency with which coping strategies were used by undergraduate nursing students at a higher education institution in the Western Cape. The researcher also sought to increase her understanding of a particular aspect (human psychology) in nursing education and aimed to collect information that may challenge the current theories regarding stress and coping.

According to Grimes and Schulz (2002:145), the basic questions that often arise from a descriptive study, are the five 'w' questions: who, what, why, when, where, and a sixth question, so what. Therefore the aim of the study is to answer both the 'what and why' questions while the research design answers the 'what' question. The information that arose provided explicit answers to the above-mentioned five questions.

The quantitative approach allowed the researcher to involve a large group of students and was appropriate for testing a wide range of stressors and coping strategies. Furthermore, it was a formal, objective, rigorous, and systematic method for generating numerical information (Burns & Grove, 2011:34). Many studies on stress and coping have utilised a descriptive, cross-sectional design with a quantitative approach (Gibbons, Dempster & Moutray, 2009a:855; Por *et al.*, 2011:855; Khater *et al.*, 2014:194; Yildirim *et al.,* 2017:33). Previous studies asked respondents to rate stressors in terms of the degree to which they are distressing (Jones & Johnston, 1999:162-181; Deary, Watson & Hogston, 2003:12-13). Moreover, in their study Deary *et al.,* (2003:80-81) established that perceived stress can be combined with an increased level of personal achievement, suggesting that stress experienced is also a source of eustress. These findings and the dominance of literature

utilising a quantitative approach by Dr Chris Gibbons, regarding distress and eustress, supported the applied research methodology.

Complementary to the quantitative method, four open-ended questions regarding personal and financial stressors were included. The researcher identified these two important stressors in the literature review and aimed to broaden the readers' understanding of these two components in context of this nursing education institution and in South Africa. Stress and coping are sensitive issues.

The researcher sought to determine whether stressors (distress/eustress) in undergraduate nursing students corresponded to the different coping strategies used by them. In addition, the purpose was to provide a picture of situations as they occur in a natural setting (Grove *et al.,* 2013:692). Therefore the self-reporting method in the form of questionnaires and open-ended questions was deemed suitable to describe undergraduate nursing student's stressors and coping strategies at a nursing higher education institution in the Western Cape.

## 3.5    POPULATION AND SAMPLING

The population refers to a particular group of individuals or elements, who are the focus of the research study (Burns & Grove, 2011:290). The target population that was selected for the study was the entire first, second, third and fourth year undergraduate nursing student population (N=590) at the particular nursing education institution (NEI) (Table 3.1). These (N=590) students were registered but not all the students attended classes and some were terminated although they were still on the records. Therefore, this amount was used as a guide to calculate the target population. The two streams of nursing students were those who were registered for the Extended Curriculum Programme (ECP), first year extended over two years, and those registered for the mainstream programme (first, second, third and fourth year) BTech undergraduate nursing students.

A sample is a subset of the population, which are the most basic units through which data is collected (Polit & Beck, 2012:275). A non-probability convenience sampling method was used to select a sample size of (n=211) for the purpose of the study. This sampling method was used because the researcher had access to the participants during their scheduled academic classes. Furthermore, due to practical and financial constraints, it was suitable to approach the students during their theoretical engagement and not during their practical placements at the different hospitals.

Following institutional permission, and with permission from the Head of Campus, the researcher approached the different heads of departments to arrange a date and time for data collection that would not infringe on the students' academic teaching and learning time. The researcher included all the students who were available and willing to participate in the study. Diversity was ensured diversity by including both male and female participants from different ethnic groups. All class groups in the student population were multiracial.

According to LoBiondo-Wood and Haber (2010:226), most studies in nursing rely on non-probability sampling and, despite the shortcomings, it was the best practical method to use. Moreover, anonymity of the participants was ensured because the students no formal class list was used to approach the students.

**Table 3.1: Undergraduate nursing student population in 2017**

| Year | Total Population (N) | Sample (n) |
|------|---------------------|-----------|
| 1st year ECP (2nd year) | 75 | 40 |
| 1st year Mainstream | 151 | 25 |
| 2nd year | 206 | 74 |
| 3rd year | 102 | 37 |
| 4th year | 56 | 35 |
| TOTAL | N=590 | n= 211 |

### 3.5.1    Inclusion and exclusion criteria

All first, second, third and fourth year BTech undergraduate nursing students who wanted to participate was included. The first year students were required to be enrolled for a minimum of six months.

BTech undergraduate nursing students from the rural campuses were excluded. The reason for the exclusion was due to time, manpower, and cost constraints.

### 3.6    INSTRUMENTATION

The data was collected with a questionnaire (Annexure B) that consisted of three sections (see below) and provided the necessary, valuable data. The researcher used existing questionnaires from Dr Chris Gibbons and Dr Paul Wong with permission from both authors to apply minor changes. The self-report questionnaire selected for this study have been standardised to use in a South African setting (i.e. with appropriate norms).

All the questions in the questionnaires were based on the specific objectives of the study and were in line with the literature review.

### 3.6.1    Section A (questions 1-6)

Section A (Annexure B) was formulated to collect the demographic data of participants. This information was deemed important in order to establish the context of undergraduate nursing students' stressors (distress/eustress) and the coping strategies used by them.

The researcher decided to include an additional category to the home language questions, indicating "other" to accommodate those participants who did not speak Afrikaans, English or Xhosa. These demographic data markers included:

- Gender of participants.
- Language.
- Age.
- Year of study.
- Programme name: Extended Curriculum Programme (ECP) or Mainstream.
- Marital status.

### 3.6.2    Section B (questions 1-32)

Section B (Annexure B) was originally constructed by Dr Chris Gibbons and titled *Index of Sources of Stress in Nursing Students (ISSN)* and is a 32-item questionnaire. It identified the potential sources of stress as experienced by nursing students (Gibbons, Dempster & Moutray, 2010:621; Gibbons, 2012:24). In this study, the ISSN will be used to measure the course demands and students' experiences that are rated as both sources of eustress and distress (Gibbons *et al.*, 2009b:1100). The ISSN offers important information when reviewing course changes to nursing programmes (Gibbons *et al.*, 2009b:1100). The traditional view of rating a stressor only as negative (distress) is now a challenge because it is increasingly important to perceive stressors as opportunities to achieve goals (Gibbons, 2010:1301). According to Zhao, Lei, He, Gu & Li (2014:7) stress might not be a stressor if the person has enough confidence and is therefore able to change his/her perception of the stressor as a positive power.

The ISSN also assessed the appraisal of potential stressors as described by Lazarus and Folkman's (1987:141-142) "Transactional Model of Stress". The questionnaire clarified the meaning of the concepts 'stress' as hassle and 'positive stress' as uplifting in order to ensure a more user-friendly questionnaire.

The sources of stress questionnaire consisted of 32 closed-ended questions. All the questions had two response scales and each item was rated twice. Each item was rated as a hassle or "distress" as well as an uplifting experience or "eustress". Therefore, the same

experience could usually be a source of both distress and at the same time an uplifting experience that contribute to significant skills achieved by nursing students.

The researcher adapted the questionnaire to make it more reader-friendly. The vocabulary was simplified for students to understand the questions and certain words were updated. Furthermore, the researcher used the word "course" instead of "programme" as in the original questionnaire because "course" is used at the specific higher education institution.

- Question 1 – "tutorials" were changed to "lectures".
- Question 3 – "PowerPoint slides'' were changed to "PowerPoint presentations".
- Question 5 & 6 – "constructive feedback of my formative / summative assessments" was added and not only "of assignments" as in the original questionnaire.
- Question 9 – the word "student-led'' was left out. The purpose of adapting the questionnaire was also to fit the nursing students' needs because they do not just prepare to give presentations but also have to make presentations in class.
- Question 14 – the practical value of learning theoretical models/concepts was added.
- Question 15 & 16 – certain examples were added to the question; for example, study groups, group work, and presentations by students and "visit to other institutions".
- Question 18 & 20 – the students' course (BTech) was added. Furthermore, the researcher added how the course helped them regarding problem-solving and decision-making to prepare them to be a registered nurse.
- Question 21, 22 & 23 – "placement mentors" were changed to clinical educators (mentors) because students are more familiar with the word "mentor". Furthermore, presumably course/module evaluations (e.g. exams/summative, tests/formative assessments, and written assignments) would be a potential source of academic stress for students and therefore the researcher included it in the questionnaire.
- Question 28 & 29 – the researcher did not only focus on OSCEs when preparing for practical assessments but preparation for practical assessments in general. Furthermore, the researcher did not only focus on "how nursing colleagues treat me on placement" but overall clinical practice experiences, for example, hospitals and clinics.
- Question 32 – certain difficult words, such as "sustaining", were left out and therefore simplified by just mentioning "My relationship with my patients" instead of "building and sustaining a relationship with patients".

There were also items measuring support. The question numbers included for support were 24, 25 and 26. A 0 to 5 point Likert scale was used with 0 representing no hassle and 5 represented by a high score (big hassle); thus, a significant source of distress (Table 3.2.1).

Similarly, when rating an item as uplifting, 0 will indicate no source of satisfaction or no influence that helps to achieve significant skills while 5 will indicate a strong sense of satisfaction (Gibbons, 2012:24).

The researcher obtained permission from the original author to use the questionnaire via e-mail communications (Annexure G). The traditional view of rating a stressor only as negative (distress) was now challenged because it was increasingly important to perceive stressors as opportunities to succeed (Gibbons, 2010:1301).

**Table 3.2: Scale of options (hassle)**

| Hassle | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| | Represents no hassle | Not at all (Never a hassle) | A little bit (Rarely a hassle) | A moderate amount (Occasionally a hassle) | A considerable amount (Often a hassle) | A big hassle |

**Table 3.3: Scale of options (uplifting)**

| Uplifting | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| | Represents no uplifting | Not at all (Never uplifting) | A little bit (Rarely uplifting) | A moderate amount (Occasionally uplifting) | A considerable amount (Often uplifting) | A great uplifting |

**Table 3.4: Example of how participants completed the questions**.

| Hassle 0-5 | | | | | | Item | Uplifting 0-5 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 1. My placement experience | 0 | 1 | 2 | 3 | 4 | 5 |
| | | | X | | | | | | | | | X |

The example above (Table 3.4) would indicate that the person believes that his/her placement experience provides him/her with a moderate amount of distress (hassle = 3) but also provides him/her with a strong sense of satisfaction and achievement (uplifting = 5).

Comprehensive standardised self-reporting questionnaires regarding stressors and coping strategies were not available in a South African setting. The availability of suitable questionnaires was one of the problems the researcher experienced in the literature review. Although the instrument was not standardised to be used in a South African setting, the researcher consulted field experts, including a statistician from Stellenbosch University. The statistician deemed the self-report instrument suitable to meet the objectives set for this study. The questionnaire addressed four important components (categories) linked to stressors namely:

- Learning and teaching.
- Placement-related (clinical).
- Course organisation.

- Support.

The researcher identified in her literature review that students were exposed to multiple stressors including those related to clinical placements (Pitt *et al.*, 2012:903; Khater *et al.*, 2014:200-202) as well as personal and financial circumstances (Shaban *et al.*, 2012:204). Although personal and financial stressors were identified in the literature review, it was not indicated on the questionnaire. Therefore it was recommended by the Health Research Ethics Committee of Stellenbosch University to be added. Four open-ended questions to elicit opinions on these components were added. Participants were provided with the opportunity to describe their personal as well as their financial circumstances (negative/hassle, uplifting/eustress) that interfered with their academic performance as part of the stressors' questionnaire components.

### 3.6.3   Section C (questions 1-75)

Section C (Annexure B) comprised questions pertaining to coping strategies designed by Dr Paul Wong, a clinical psychologist, and was used to identify coping strategies (Wong, Reker & Peacock, 2006:68-72; Wong & Wong, 2006:276-278). Dr Wong argues that very few studies on stress and coping have been developed to use in a cross-cultural setting (Wong & Wong, 2006:2-6). Owing to the reality of diversity in South African NEIs, it was deemed appropriate to consider race, although the intent was not to compare responses across racial lines in this study.

The title is *Coping Schemas Inventory Revised Questionnaire*. Respondents had to rate their coping strategies according to a five point Likert scale. The scale consisted of five items from "not at all/never" (represented as one) to "a great deal/always" (represented as five) (Wong & Wong, 2006:276-278). The questionnaire on coping strategies contained 75 questions and was relevant to this study because it addresses multicultural perspectives (Wong & Wong, 2006:5). There were nine coping schemas namely: situational, self-restricting, active emotional, passive emotional, meaning, acceptance, religious, social support, and tension reduction (Wong *et al.,* 2006:65). The definition of each was discussed in Chapter 2, section 2.6.2.

The researcher also adapted some of the questions to make it more reader-friendly.
- Question 10 – some unnecessary words were left out such as "as well as can be expected".
- Question 23 – the researcher also explained that the meaning of "God" for the purpose of the study refers to any personal source of spiritual guidance in order to accommodate students' different religious views. Furthermore, the researcher

restructured some of the sentences, such as "Take the problem into my own hands by fighting back" to "Take the problem into my own hands to face challenges rather than avoid them".

- Question 25 – two questions asked in one (as on the original questionnaire) were also changed by asking only one question at a time. Words such as "imagery" was explained in the sentence (e.g. to form mental pictures of things/events to reduce stress).

- Question 61 – the vocabulary was simplified and certain wording was updated: for example, "pent up emotions" was changed to "suppressed emotions".

- Question 73 & 74 – two extra questions were added regarding the use of drugs and alcohol since this is a problem amongst students.

Both questionnaires, *Index of Sources of Stress in Nursing Students (ISSN)* and *Coping Schemas Inventory Revised Questionnaire* were previously used in developing countries such as Belfast, Northern Ireland (United Kingdom) but less in the developing countries such as South Africa. Hence, it is important to apply coping strategies to different histories and dynamics because of the practical benefit and scientific progress (Wong & Wong, 2006:5).

The questionnaires (demographic data, Index of Sources of Stress, Coping Strategies) were printed in English only because English is the medium of learning and teaching at the specific higher education institution and it was assumed that all students would be proficient in English.

## 3.7    PRE-TESTING OF INSTRUMENT

The reliability and validity of the instrument was already established in previous studies (see sections 3.8 and 3.9). Therefore a pilot study was conducted on a small representative group of fourth year nursing students to pre-test the questionnaire for face validity and understanding of the questions. Completed questionnaires were received from all five students and results were excluded from the main study. On completion of the pilot study, the researcher was satisfied that students were able to answer all the questions correctly and that they understood the rating scale of both the questions (sources of stress, coping strategies). There were no shortcomings and the students fully understood the questionnaires. Therefore, no changes were required.

## 3.8    SCIENTIFIC RIGOUR OF THE OPEN-ENDED QUESTIONS

Although the study was quantitative in nature, the researcher included measures to ensure scientific rigour, reliability, and validity of the four open-ended questions (textual data).

The researcher started by reading through the narrative data several times to familiarise herself with the content. Coding is a process of reading data and then breaking it down into sub-parts (Burns & Grove, 2011: 94). The researcher coded the narrative data manually by highlighting certain text. Comments were made next to each response. Themes emerged from the codes by categorising certain elements, findings, and terms that may have been repetitively used by the participants, for example, financial issues (NSFAS, bursaries). The researcher then subdivided the themes into sub-themes. The themes and sub-themes were captured on a MS-word document. The specific language the participants used was captured with their coding number in brackets next to it.

The researcher asked an independent expert in qualitative studies to peer-check the data after all the responses were appropriately captured. Consensus was reached after the researcher and independent expert relooked at all the themes and codes to capture the finer nuances of meaning.

## 3.9    VALIDITY AND RELIABILITY

Content validity is the extent to which the measurement method includes all the major elements while face validity is the degree to which an instrument measures what it is supposed to measure (Grove *et al.*, 2013:394). Research experts in the field of stress and coping validated the instruments used in this study, in terms of content and outcome (Gibbons *et al.*, 2009b:1095-1102; Wong *et al.,* 1993:68-72). Permission was granted by personal correspondence (via e-mail) to use the questionnaires (Annexure G).

Burns and Grove (2011:335) define content-related validity as the extent to which the measurement includes all the major elements. The *Index of Sources of Stress in Nursing Students (ISSN)* questionnaire was developed in different phases (Gibbons *et al.*, 2009:868). Phase 1 was to generate the items on the questionnaire, namely, clinical experience, levels and sources of support, learning/teaching, and course structure (Gibbons *et al.*, 2007:288). The items were developed out of focus groups in an earlier study on distress and eustress (Gibbons *et al.*, 2008:282-284).

Phase 2 was to establish face and content validity of the ISSN. A panel that consisted of the Associate Head of School in Nursing and Midwifery (at the host university in Belfast) and two psychologists (Gibbons *et al.,* 2009:868) conducted phase two. Moreover, the items of the ISSN were compared with earlier studies on stress (Gibbons et al., 2009:868). The authors ensured that the items were relevant, clear, and that all key aspects were covered (Gibbons et al., 2009:868). Content validity and reliability were furthermore established in previous studies about coping and satisfaction in nursing students during a pilot study in 2011

(Gibbons *et al.*, 2011:623); stress, coping, and burnout (Gibbons, 2010:1300); and course satisfaction. Furthermore, content and face validity of the instrument were ensured by pre-testing the current questionnaire in a pilot study (section 3.7). Multifarious measures were taken to ensure the validity of the questionnaires. Such measures included the following:

- The questionnaire was strengthened by the literature review on stressors and coping strategies. For the purpose of this study, the data collection tool was circulated to experts in the field of education and nursing to review the validity prior to utilising it in the study. Furthermore, experts in research methodology and the statistician were consulted throughout the study to ensure construct, face, and criterion validity.
- All the questions in the questionnaire were based on the above objectives.
- The instrument was scrutinised by field experts, the supervisor, and co-supervisor.

Reliability is the extent to which the instrument measures consistency of the target attribute (Polit & Beck, 2012:331), in other words, the degree to which the instrument would produce the same results during repeated measures (LoBiondo-Wood & Haber, 2010:259). The original authors of the instruments, Dr Chris Gibbons and Dr Paul Wong, provided the researcher with links to relevant articles about stressors/coping strategies and previously calculated reliability scores (Annexure G). Furthermore, the link of the scoring grid was provided to the statistician of Stellenbosch University who was consulted throughout the study. The Cronbach's alpha coefficient test for reliability of the current questionnaire results were as follows: Stress Hassle 0.89; Stress Uplifting 0.89, and Coping 0.90. Burns & Grove (2011:374) concur that a Cronbach's alpha of 0.80 to 0.89 confirms that the measurements were adequately reliable to use in the study.

## 3.10    DATA COLLECTION

### 3.10.1   Gaining access

Permission to conduct the study was obtained from the Interim Research Committee of the higher education institution (Annexure F) concerned. The data was collected from the 2nd year ECP, 1st year (mainstream), 2nd, 3rd and 4th year BTech undergraduate nursing students at the nursing education institution during the months of July and August 2017. The process of data collection was delayed due to a students' strike from the 27th-29th of July 2017.

The 1st and 2nd year ECP, and mainstream 1st, 2nd, 3rd and 4th year BTech nursing students were in different class groups according to the "block'' system used at the NEI. Therefore, not all students were in the same venue at the same time as the entire 1st year group of ECP

students. Some of the 1st year (mainstream) students were writing a formative assessment. Only the 2nd year group of ECP students were used. The students also had different lecturers for each group and therefore the lecturer who was the coordinator for each group, organised a date and time that was suitable for all the role-players. Two groups of the 2nd year (mainstream) students had a study day on the day of the data collection and therefore the researcher could not include them in the study because of a student strike thereafter.

### 3.10.2  Recruitment of participants

The researcher sent an e-mail to the librarian at the higher education institution with the necessary recruitment material. Recruitment for voluntary participation was conducted via the Facebook pages of all the BTech student groups and poster adverts were placed on the notice boards for all the ECP (from 1st to 4th year ), 2nd, 3rd and 4th year students (Annexure H).

### 3.10.3  The data collection procedure

Nursing students are regarded as a vulnerable group and may have felt intimidated by the researcher, since she was previously a nurse educator at the nursing education institution where the study was conducted. The 2nd year ECP, mainstream 1st, 2nd and 3rd year students did not know the researcher and therefore she was mainly responsible for data collection of these student groups. The fieldworker collected the data of the 4th year nursing students in order to exclude research bias as the researcher was known to these students. The fieldworker with a Master's degree in nursing was familiar with the study and data collection process. She also assisted with the 2nd year (mainstream) group because she was able to assist with Xhosa students. For the other groups – 2nd year ECP, mainstream 1st and 3rd year – an interpreter was on standby but was not necessary to translate, as students fully understood the questions.

The researcher arranged with the heads of department and lecturers to have a one-hour briefing with the different groups during a self-study period to recruit students for voluntary participation. During the recruitment phase, the fieldworker gave each student who raised their hands indicating their willingness to participate, a copy of the information leaflet and a consent form, which they signed (Annexure A). The data collection process also occurred during this hour session due to time and practical constrains. Furthermore, the researcher and fieldworker personally collected the completed questionnaires immediately after completion. However, the fieldworker collected all the 4th year students' questionnaires because they knew the researcher, as previously mentioned. The questionnaires was only collected when participants indicated its completion by raising their hands.

The signed consent forms was filed and kept in a locked cabinet to ensure confidentiality. The following was outlined in the information leaflet and consent form (Annexure A):

- A brief description of the study aim, who the sample population is and how many participants were expected to be recruited.
- Why the potential participants had been identified as a potential participant in the study.
- What participation in the study will entail for participants, namely, completing three questionnaires and what the questionnaires measured.
- Where they can go (i.e. a referral to an appropriate counselling centre) if participating in the study or completing the questionnaire makes them anxious or worried about the stressors they are experiencing or their coping mechanisms.

The researcher did not arrange a date for the data collection close to a summative assessment, because it could result in increased stress levels for participants. The researcher stayed in the venue to answer any questions from the participants and collected the questionnaires immediately after completion. All the questionnaires were collected and kept by the researcher in a box that was in the venue. After all the questionnaires were collected, the researcher sealed the box.

## 3.11    DATA ANALYSIS

Data analysis in quantitative research is to reduce, categorise, and make sense of the collected data (Grove *et al.,* 2013:691). The researcher started by organising the raw data for analysis. Every questionnaire was numbered after data collection. The data was captured on a computer by using an Excel spreadsheet. After capturing all the numerical data, it was crosschecked to ensure accuracy, before sending it to the statistician at Stellenbosch University. The statistician was consulted throughout the entire process of data analysis.

The data was statistically analysed by using a SPSS version 24.0 package. Descriptive and inferential statistics were used in the data analyses process and was built on the research question, objectives, and hypothesis. Therefore, the descriptive statistics were used to determine how frequent stressors and coping strategies occur. Means and standard deviations were used to summarise the variables. The mean is the sum of the scores divided by the number of scores being added and is the appropriate measure of central tendency (Burns & Grove, 2011:387). A Likert scale from 0 to 5 were used with 0 indicating no hassle and 5 indicating a great upliftment. Therefore, the average mean score was 2.5. A Likert scale was also used for the coping strategies with 1 indicating not at all (never) and 5 a great deal. The standard deviation is the square root of the variance (Burns & Grove, 2011:388).

The standard deviation is the average difference value from the mean in the specific sample (Burns & Grove, 2011:388).

### 3.11.1   Statistical tests

#### 3.11.1.1   The Pearson Product-Moment Correlation coefficient (r)

The Pearson correlation test was used to determine what the relationships were between the variables (Grove *et al.*, 2013:561). For the purpose of this study the relationship between the two variables, stressors and coping strategies, was calculated.

#### 3.11.1.2 The T-test

The T-test is used to examine group differences when the variables are measured at the interval or ratio level of measurement (Burns & Groove, 2011:404).

### 3.12    SUMMARY AND CONCLUSION

The implementation of the methodology was discussed in this chapter. Furthermore, the research design, population, sampling, instrumentation, data collection, and analysis were presented. The ethical principles were applied throughout the research process and were explained in detail.

In the next chapter the researcher will report on the results for the identification of the stressors and coping strategies used by BTech undergraduate nursing students.

# CHAPTER 4:
# RESULTS

## 4.1     INTRODUCTION

This chapter discusses the results of the data analysis. The quantitative data was captured on a Microsoft Excel spreadsheet that had been modified by the supervisor and co-supervisor. The data was analysed with the support of an experienced statistician at Stellenbosch University.

The qualitative data was provided in the spaces allowed for the responses on the questionnaire. Data for this study was predominantly presented in a quantitative format. The researcher rounded off the decimals to the first decimal (full number), whilst the response to the four open-ended questions were presented in a narrative format. The p value was used to test the relationship between the variables.

## 4.2     SECTION A: BIOGRAPHICAL DATA

The biographical data included the gender, home language, age, year of study, course, and marital status of the students at the specific nursing education institution. This individual information was important to contextualise stress and coping within specific domains.

### 4.2.1     Variable 1: What is your gender?

Only one of the participants did not indicate their gender. The majority of the participants indicated that they were female (n=173, 82%) compared to the males (n=37, 17%). This is in line with the statistics of the South African Nursing Council, which illustrates that female nursing students at the specific institution are the majority as discussed in Chapter two, section 2.10.2.

### 4.2.2     Variable 2: What is your home language?

One participant did not respond to this question. Most of the participants' home language were isiXhosa (n=106, 50.5%), followed by English (n=40, 19%), Afrikaans (n=40, 19%), and "other" (n=24, 11.5%). In figure 4.1 three out of the 24 participants who indicated "other" mentioned Sesotho as their home language followed by isiZulu (one) and Setswana (one).
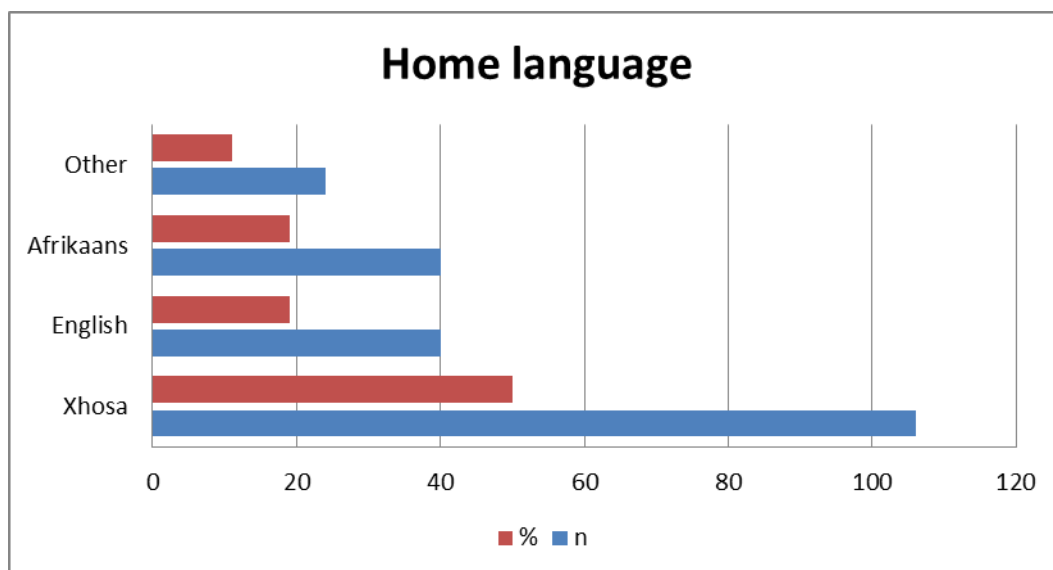
**Figure 4.1: Home language of participants (n=210)**

### 4.2.3    Variable 3: What is your age?

Two participants did not indicate their age. The mean age of participants was 23, with a standard deviation (SD) of 3.9. The minimum age was 18 years and the maximum 41 of those participants who indicated their age (n=209).

### 4.2.4    Variable 4: What is your year of study?

All the participants answered this question (n=211). Most participants were second year students (n=74, 35%), followed by the first year (n=65, 31%), third (n=37, 17.5%), and fourth year (n=35, 16.5%). It was evident that most of the students at this nursing education institution represented the second year group because they were the biggest representation in the sample.
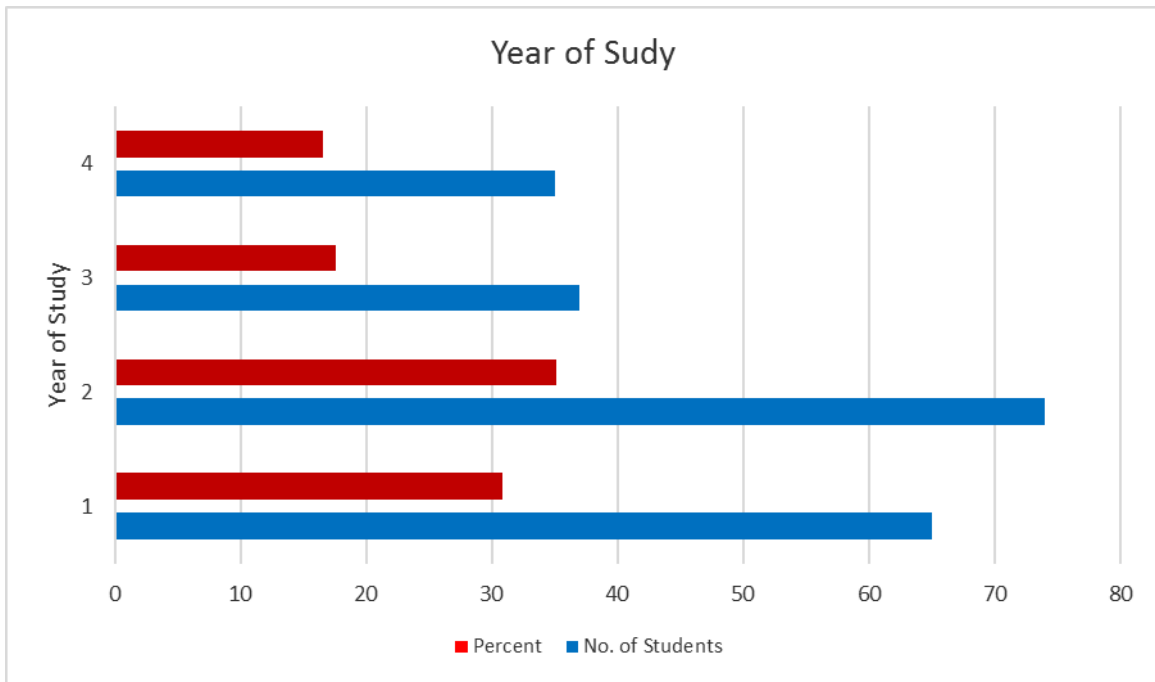
**Fig 4.2: Year of study of participants (n=211)**

### 4.2.5    Variable 5: What is your course (programme)?

Most of the participants were BTech mainstream students (n=168, 81%) while 19% (n=40) indicated that they are part of the Extended Curriculum Programme (ECP 2nd year group).
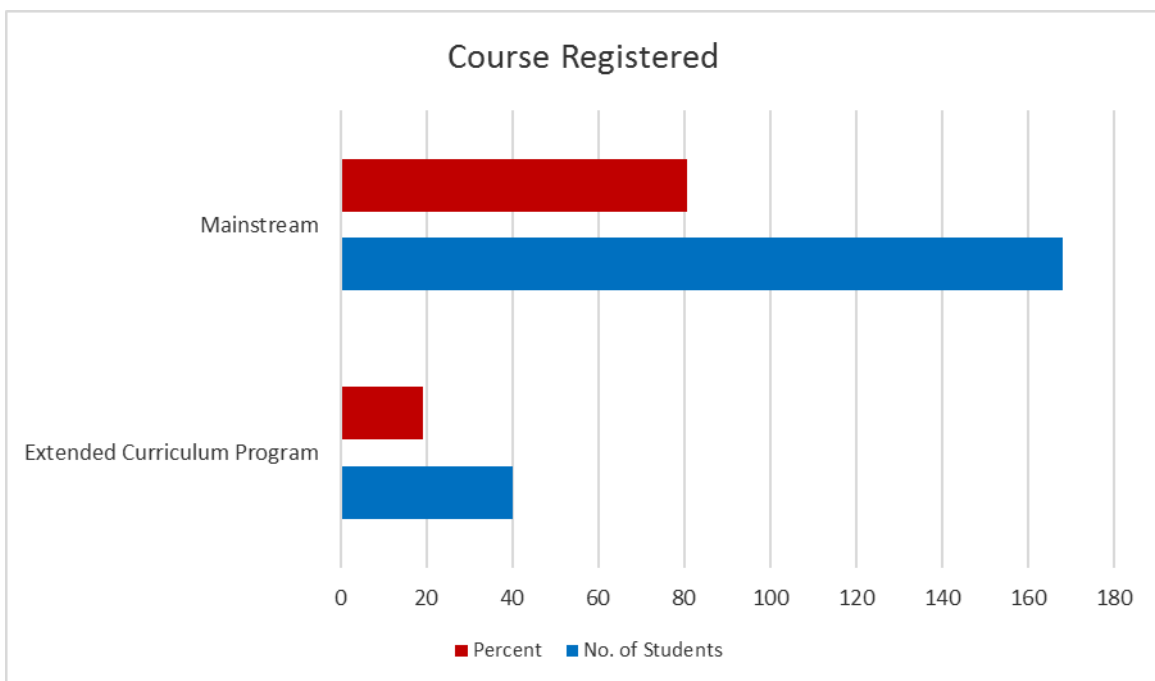


**Fig 4.3: Course registered for by participants (n=208)**

### 4.2.6    Variable 6: What is your marital status?

All the participants (n=211) answered this question. Participants were mostly single (n=196, 93%) followed by married (n=12, 6%), and divorced (n=3, 1%). Marital status was an important question to ask because it could influence participants' stress and coping strategies. Furthermore, the fact that most of the participants were single corresponded to their developmental stage (early adulthood).

### 4.3    SECTION B: THE INDEX OF SOURCES OF STRESS IN NURSING STUDENTS

Stress is mainly claimed as negative (distress) but can also be positive (eustress), which aids students to achieve their goals. Participants were asked to report on their sources of stress. Negative stress leading to distress was called a "hassle" in the questionnaire. Positive stress, which leads to eustress, was called "uplift" (Gibbons, 2012: 22). Participants were asked to rate each item twice, once as a hassle and once as an uplifting experience. Item ratings were from 0 through 5, with 0 indicating no hassle stress and 5 indicating a great uplifting. A mean score closer to 5 for "hassle" would indicate high negative stress levels experienced for that item. Furthermore, a mean closer to 5 for "uplifting" would indicate high positive stress experienced for that item.

Four categories of items were identified by the authors (Gibbons *et al.*, 2007:282), namely, clinical experience, support, teaching, learning, and course structure. Some of the items were relevant under more than one category.

To ease the interpretation, the mean and standard deviation (SD) are reported in the tables below. More participants responded to the uplifting section on the questionnaire.

### 4.3.1    Teaching and learning

Teaching and learning in the context of this study refers to the quality of teaching and activities that improve learning (Gibbons *et al.,* (2010:1307). Furthermore, it also refers to the improvement of certain quality skills, for example, critically thinking. The following questions (1, 2, 7, 11, 13, 15, 17 and 19) were related to teaching and learning.

The results are displayed in table 4.1, followed by the discussion.

**Table 4.1: Sources of stress: teaching and learning**

| Variable: Teaching and Learning | | Hassle | | | Uplifting | | |
|---|---|---|---|---|---|---|---|
| | | n | Mean | SD | n | Mean | SD |
| 1 | The quality of lectures | 190 | 2.2 | 1.4 | 200 | 3.6 | 1.1 |
| 2 | The volume of information we are expected to grasp during a lecture | 199 | 3.1 | 1.4 | 195 | 3.0 | 1.4 |
| 7 | Developing the ability to critically analyse and evaluate questions | 196 | 2.5 | 1.4 | 194 | 3.1 | 1.2 |
| 11 | The number of presentations students give in class | 190 | 2.3 | 1.8 | 198 | 2.8 | 1.6 |
| 13 | Question and answer sessions during lectures, discussions in class and ward rounds | 191 | 2.0 | 1.6 | 200 | 3.6 | 1.5 |
| 15 | The time given to lectures compared to self-study, group work and presentations by students | 193 | 2.7 | 1.6 | 196 | 3.1 | 1.5 |
| 17 | The learning I engage in outside class, for example a visit to other institutions | 187 | 2.1 | 1.9 | 196 | 2.6 | 1.8 |
| 19 | The pace and intensity of the course | 197 | 3.7 | 1.5 | 194 | 2.8 | 1.7 |

Table 4.1 reflects that the response rate was higher for the "uplift" questions compared to the "hassle" questions. Each table highlights the highest reported negative stress and the highest reported positive stress. Question 1 (quality of lecturers) and 13 (question and answer sessions during lectures, discussions in class and ward rounds) showed a high uplifting mean score of 3.6. Many of the activities had scores in the middle (2.5) that may indicate that it neither created distress nor eustress.

The pace and intensity of the course seemed to create negative stress with a mean score of 3.7.

### 4.3.2    Teaching and learning/course organisation

The following questions were related to teaching and learning/course organisation: questions 3, 4, 8, 9, 10, 14, 16, 18, 20, 21, 22, 23 and 27. These questions could be grouped into both these categories and is therefore discussed separately. Gibbons (2012:22-28) mentioned that course organisation can be associated with the smooth running of the course and how valuable the process of learning is for students. Furthermore, it is about the level of organisation and how key information is communicated to the extent that students feel part of the "learning community" (Gibbons, 2012: 22-28). It is more likely that course organisation contributes to distress (Gibbons *et al.*, 2010:629).

**Table 4.2: Sources of stress: teaching and learning/course organisation**

| | Variable: Teaching and Learning | Hassle | | | Uplifting | | |
|---|---|---|---|---|---|---|---|
| | | n | Mean | SD | n | Mean | SD |
| 03 | The clinical examples and additional information, beyond the PowerPoint presentation, offered by lecturers | 189 | 1.6 | 1.4 | 205 | 3.7 | 1.3 |
| 04 | Lecturers who use their authority to retain order in class | 195 | 1.8 | 1.5 | 199 | 3.1 | 1.6 |
| 08 | Learning by preparing presentations and presenting in class | 191 | 2.7 | 1.7 | 198 | 3.3 | 1.6 |
| 09 | Lecturers' responses to student presentation in class | 187 | 1.5 | 1.6 | 202 | 3.8 | 1.3 |
| 10 | Learning by listening to others presenting in class | 189 | 1.8 | 1.8 | 200 | 3.4 | 1.5 |
| 14 | The practical value of learning theoretical models/concepts during lectures (example: Maslow's hierarchy of needs) | 190 | 2.0 | 1.6 | 200 | 3.5 | 1.4 |
| 16 | How much I am valued by my lecturers | 189 | 1.7 | 1.6 | 199 | 3.3 | 1.5 |
| 18 | The extent to which the course helps me regarding the problem solving and decision making process when experiencing academic and personal problems | 188 | 2.0 | 1.5 | 204 | 3.1 | 1.4 |
| 20 | The suitability of the BTech course to prepare me to be a registered nurse. | 192 | 2.4 | 1.7 | 198 | 3.8 | 1.4 |
| 21 | My experience of writing a formative assessment (test) | 192 | 1.7 | 1.6 | 202 | 4.0 | 1.3 |
| 22 | My experience of writing a summative assessment (examination) | 192 | 3.0 | 1.8 | 202 | 4.0 | 1.2 |
| 23 | My experience of written assignments | 190 | 2.6 | 1.8 | 198 | 3.7 | 1.5 |
| 27 | My experience with clinical educators (mentors) | 185 | 2.1 | 1.8 | 202 | 3.4 | 1.5 |

More students answered the uplifting questions than the hassles. The data indicated (Table 4.2) that more participants responded to the "uplifting" questions compared to the "hassles". Only three (3) items had a mean score for hassles above 2.5. The activities that caused distress were writing examination, followed by the lecturers' responses to students presenting in class and writing assignments.

The majority of participants (n=202, 96%) perceived writing formative and summative assessments as a great "uplifting" experience with a mean score of 4.0. Interestingly, participants (n=192, 91%) seemed to view these same activities (writing examination and assignments) as uplifting as well. Moreover, the learning opportunities, such as presenting in class and the practical value of theoretical models such as Maslow's hierarchy of needs,

may lead to personal achievement. This is reflected in the high mean scores of between 3.3-3.8. The clinical examples and additional information beyond the PowerPoint presentations offered by lecturers were also deemed as a great upliftment by participants (n=205, 97%). These results correspond to previous findings, which indicate that when lecturers share their own experiences, students find it easier to learn (Gibbons *et al.*, 2007:286).

The results may indicate the effectiveness of the course organisation. The data reflected that learning and teaching/course organisation were acceptable for the participants and therefore lead to sources of eustress.

### 4.3.3 Course organisation

The following 3 questions were related to course organisation: 5, 6 and 12. Course organisation refers to how effective, enjoyable, significant, and valuable the course is during the process of learning (Gibbons, 2012:28). Furthermore, course delivery is a fundamental part of learning and a predictor of career satisfaction (Gibbons, 2012:28).

**Table 4.3: Course organisation**

| Variable: Course organisation | | Hassle | | | Uplifting | | |
|---|---|---|---|---|---|---|---|
| | | n | Mean | SD | n | Mean | SD |
| 05 | Timing and constructive feedback of my formative assessment (test) | 194 | 2.4 | 1.7 | 202 | 3.5 | 1.6 |
| 06 | The volume of information we are expected to grasp during a lecture | 195 | 2.8 | 1.8 | 200 | 3.1 | 1.5 |
| 12 | The behaviour of other students in class | 194 | 3.3 | 1.6 | 193 | 1.8 | 1.6 |

The data in table 4.3 reflects a high mean score of 3.3, which indicates that the distress participants (n=194, 92%) perceived was due to the behaviour of other students in class. The volume of information they are expected to absorb and assimilate during a lecture was also a "hassle" with a mean score of 2.8. Although the volume of information they have to absorb during a lecture causes distress, it was also seen as a positive factor with a mean score of 3.1. A great positive (upliftment) factor was the constructive feedback participants (n=202, 96%) received from their formative assessments with a mean score of 3.5.

### 4.3.4 Sources of support

To prevent emotional exhaustion, it is important to rate support as uplifting (Gibbons, 2010:1307). Furthermore, how educators interact with students and peer support can improve the learning and teaching activities of students (Gibbons, 2010:1299).

According to Gibbons *et al.* (2007:288) students cope well when they have an effective support system and are more optimistic regarding course demands. The three (3) questions related to support were 24, 25 and 26.

**Table 4.4 Sources of stress: Support**

| Variable: Support | | Hassle | | | Uplifting | | |
|---|---|---|---|---|---|---|---|
| | | n | Mean | SD | n | Mean | SD |
| 24 | The level of support offered by my lecturers | 191 | 2.0 | 1.6 | 199 | 3.6 | 1.4 |
| 25 | The level of support offered by my family and friends | 188 | 1.6 | 1.7 | 208 | 4.1 | 1.4 |
| 26 | The support of other students on this course | 185 | 2.1 | 1.7 | 206 | 3.2 | 1.6 |

Table 4.4 reflects the responses of participants to the level of support provided by their family and friends. Most participants (n=208, 98.5%) indicated that support from family and friends was a great upliftment (mean score 4.1), followed by the some participants (n=199, 94%) indicating support of the lecturers (mean score 3.6), and participants (n=206, 98%) indicating the support received from other students in the course was uplifting (mean score 3.2).

The levels of support were more of a eustress than a hassle because the mean score was below the half mark (2.5) for the hassle part. Participants appeared to have effective support systems as indicated above. Negative interaction experienced from one's social support may cause distress and can therefore be potentially harmful or beneficial as discussed in Chapter 2, section 2.10.2. All students (male and female) received support from the academic staff as required by the Council of Higher Education (CHE). The type of support included enhancing the learning environment, training study skills, additional academic support (tutoring), and mentoring as discussed in Chapter 2, section 2.10.2.

### 4.3.5  Placement related issues and clinical experience

For the purpose of this study, clinical experience refers to the activities in which participants engaged to develop the clinical skills they used during placement (Gibbons *et al.*, 2007:282).

**Table 4.5: Sources of stress: Placement related/clinical experience**

| Variable: Placement related | | Hassle | | | Uplifting | | |
|---|---|---|---|---|---|---|---|
| | | n | Mean | SD | n | Mean | SD |

| 28 | Guidance and practice in preparation for my practical assessments | 191 | 2.5 | 1.6 | 202 | 3.6 | 1.3 |
|----|------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|
| 29 | My clinical practice experience (Hospitals, clinics, etc.) | 193 | 2.8 | 1.7 | 203 | 3.7 | 1.3 |
| 30 | How clinical skills are practiced in the hospital compared to what we learn in the class and from our clinical educators (mentors) | 193 | 3.0 | 1.6 | 202 | 3.2 | 1.5 |
| 31 | My experiences of patient care that I have to provide (holistically) | 190 | 2.1 | 1.4 | 205 | 3.9 | 1.1 |
| 32 | My relationship with my patients | 185 | 1.5 | 1.4 | 208 | 4.2 | 1.1 |

More participants responded to the upliftment section in the questionnaire than the hassle elements. Most participants (n=208, 98.5%) indicated the relationship with their patients was a great upliftment for them with a high mean score of 4.2, followed by other participants (n=205, 97%) who indicated the holistic care they provide to their patients (mean score 3.9) as uplifting. Participants (n=203, 96%) appeared to rate their clinical practice as an upliftment (mean score 3.7) but also as a hassle (mean score 2.8). Differences in how clinical skills are practiced compared to what they have learned and how they should practice it caused a hassle (mean score: 3.0) for some participants (n=193, 91%). At the same time it was an uplifting experience (mean score 3.2) for participants (n=202, 95.5%). The guidance and practice in preparation for their practical assessments was a eustress (mean score 3.6) for participants (n= 202, 98.5%) and, at the same time, a hassle (mean score 2.5) for other participants (n=191, 90.5%).

## 4.4    SECTION B: OPEN-ENDED QUESTIONS

Section B consisted of four open-ended questions where participants were requested to describe, in their own words as a narrative report, their circumstances and the interferences with their academic performances.

### 4.4.1    Question 1: Describe your personal circumstances that are a distress (hassle) for you; therefore, interfere with your academic performance

**Table 4.6: Personal circumstances that distress (hassle) and interfere with students' academic performance (n=78, 100%)**

| Personal circumstance that causes distress (hassle) and interfere with students' academic performance | n | % |
|---|---|---|
| **Emotional distresses** | 37 | 47.5 |
|    • *Not excelling academically* <br>    • *Feeling lonely* <br>    • *Feeling guilty* | | |
| **Domestic problems** | 22 | 28 |
|    • *Being a wife is not easy* <br>    • *Domestic issues* <br>    • *Mother and father fight* <br>    • *Parents' marital problems* <br>    • *Fight with boyfriend* <br>    • *Stress at home* <br>    • *Sick grandparents* <br>    • *Sick mother, father, children, brother, sisters* | | |
| **Support from family, friends** | 19 | 24.5 |
|    • *No visits* <br>    • *No support* <br>    • *Friends are a hassle* <br>    • *No motivation* <br>    • *Family don't even know where I study* | | |
| **TOTAL** | **78** | **100** |

Of all the participants' responses (n=211, 100%), less than half (n=78, 37%) responded to the question to describe personal circumstances that were experienced as distress (hassle) and interfered with their academic performances. Students' responses were thematically categorised (Table 4.6) and a discussion follows below.

### *4.4.1.1   Emotional distresses*

Even though indicated as less than half on table 4.6, emotional distress (n=37, 47.5%) was described as the highest personal circumstance that interfered with participants' academic

performance. Participants perceived emotional stress more specifically related to formative and summative assessments and the time available to study. One participant summarised the feelings of others by the following statement: "*Exams and test make one stress and when it comes to marks I fail, repeating a year (stress)*".

Personal health problems were described as additional stressors for not excelling academically. Participants indicated that they sometimes have  appointments to see their doctors and subsequently missed academic work, causing them additional stress.

Participants, especially those living in the residence described feelings of loneliness. These feelings of loneliness were maybe due to the fact that the vacation time was not scheduled long enough in between breaks so students can travel. Some families live too far and travel time home and back takes up too much of the allotted vacation time. Therefore, they rather only take time to go home once a year. Lack of time to visit makes students feel disconnected from family and friends, resulting in loneliness. In addition to this, participants with dependants reported feelings of guilt that originated from the fact that they were not able to fulfil parental expectations and family responsibilities. Participants indicated that they struggled to overcome the feelings of guilt as their commitments and different responsibilities to people, friends, family, and church members usually resulted in students feeling emotionally exhausted.

### 4.4.1.2 Domestic problems

More than a quarter of the undergraduate nursing student participants (n=22, 28%) were of the opinion that various domestic problems may account for personal hassles that interfere with their academic performance. Participants experienced a variety of domestic related problems such as violence between parents, sickness and death of family members, and balancing married life. These problems affected the participants' ability to focus on their studies. A participant indicated that when his parents fight, the flashbacks of the events affect his ability to concentrate on classroom teaching and learning. Furthermore, parents' marital problems interfered negatively with participants' academic performance because they used to recall the episodes and described it in detail. The stress at home due to toxic relationships with parents, other family members, and boyfriends also influenced academic performance negatively. Sickness in the family caused additional stress because they had to look after the sick person. Furthermore, the aforementioned had financial implications but also shortened their study time. Being a wife was not easy for some participants because it seemed to be difficult to find a balance between married life and being a student.

### 4.4.1.3 Support from family and friends

Some of the participants (n=19, 24.5%) referred to the various hassles in support from family and friends that impacted negatively on their academic performances.

The comments from participants indicated problems regarding no visits and family members that had no idea of the institution were they are studying. Participants reported that family members lacked supporting them by not motivating them. Moreover, friends were a hassle in the sense that they were mostly jealous of participants' progress in life.

### 4.4.2 Question 2: Describe your personal circumstances that are a positive (uplifting) influencing factor for you; it therefore motivates you and improves your academic performance

**Table 4.7: Personal circumstances that are positive (uplifting) and improve your academic performance (n=225, 100%)**

| Personal circumstances that are a positive (uplifting) influencing factor for you. It therefore motivates you and improves your academic performance | N | % |
|---|---|---|
| **Support from family, friends** | 96 | 43 |
| • *Parents encourage* | | |
| • *Supportive husband* | | |
| • *Help were needed* | | |
| • *Amazing friends* | | |
| • *Grandmother, extended family support* | | |
| • *Support from boyfriend* | | |
| • *Support from family members* | | |
| **Extrinsic motivation** | 62 | 27 |
| • *For my child* | | |
| • *Mother and daughter motivate* | | |
| • *Community* | | |
| • *My disadvantage background* | | |
| • *Family* | | |
| • *Poverty at home, being the first to graduate* | | |
| • *Other students* | | |
| • *To see others on Facebook happy* | | |
| • *To buy products* | | |
| • *Bursary sponsored by company motivates* | | |
| • *Own money, own salary* | | |

| | | |
|---|---|---|
| ***Intrinsic motivation*** | 47 | 21 |

- *I am the only one to change the future*
- *Determined to do my best*
- *Self-motivation*
- *Fulfil my dreams, vision and mission*
- *Motivation from myself*
- *Doing it for myself*
- *Strive for excellence*
- *Work hard, better vision of myself*
- *My ambition*

| | | |
|---|---|---|
| **Positive religious practices** | 20 | 9 |

- *Communicating with God*
- *With God all things are possible*
- *Praying every day*
- *SCO organisation at campus, put our dreams and hopes in God*
- *Seeking God's help*
- *God believer*
- *Trust God will provide*
- *Believe in the Almighty*

| | | |
|---|---|---|
| **TOTAL** | **225** | **100** |

A very high number of responses ( n=225, 100%) was received for personal circumstances that are positive (uplifting) influencing factors and improve the academic performance of BTech undergraduate nursing students. The responses provided by students were thematically categorised (Table 4.7) and discussed below.

### 4.4.2.1   Support from family and friends

Support from family and friends was rated as the highest personal circumstance that improved participants' academic performance (n=96, 43%). The comments from participants indicated a wide range of support from family, extended families, and friends as well as how valuable it was. Financial and emotional support from family and friends were considered authentic uplifters. Support included help where needed and various forms of encouragement. Participants indicated that the support had a positive influence on their academic performance. However, according to the literature, social support may be negative if it includes lack of understanding, fails to provide support as promised or discourages expression of feelings (Lincoln, 2000:231).

### 4.4.2.2   Extrinsic motivation

Extrinsic motivation was rated higher than intrinsic motivation (n=62, 27%). Extrinsic motivation was driven by money (bursaries), material assistance (own a car, house),

parents, other family members, and the community in which they live. The intentions of some of the participants were to make family members proud of them and not to disappoint them. Coming from a disadvantaged background (informal settlement) motivated participants to complete their studies and improve their lives. Furthermore, motivations from other students were also an important factor that positively influenced their academic performance.

### 4.4.2.3 Intrinsic motivation

Intrinsic motivation (n=47, 21%) came from the desire to excel. Participants mentioned that they wanted to do their best and work hard to reach their goals. They also mentioned that they were motivated by themselves. Furthermore, they worked hard to reach their goals, and had a vision and mission to fulfil their dreams.

### 4.4.2.4 Positive religious practices

Although participants (n=20, 9%) rated positive religious practices lower, it was a thread that ran through the comments from the participants in the closed-ended questions on coping but surprisingly also in the open-ended questions. Therefore, according to the participants, religious practices improved their emotional well-being during the day. Practices of their religion demonstrated that it was a form of communication they had with God. Participants indicated that having faith in God was to believe and to experience a deeper understanding of God as their provider and motivator. No negative religious experience, for example punishment from God, was reported. The Student Christian Organisation (SCO) on campus was also experienced by participants as a great upliftment.

### 4.4.3    Question 3: Describe your financial circumstances that are a distress (hassle) experience for you; therefore, interfere with your academic performance

**Table 4.8: Financial circumstances that distress (hassle) and interfere with students' academic performance (n=203, 100%)**

| Financial circumstances that are a distress (hassle) experience for you; therefore, interfere with your academic performance | N | % |
|---|---|---|
| **Financial issues** <br>• *No funding* <br>• *Study without bursary* <br>• *Bursary denied* <br>• *Pay-out of bursaries* <br>• *Parents unemployed* <br>• *Mother / Father only breadwinner* <br>• *Poverty at home* | 203 | 100 |

| | | |
|---|---|---|
| • *No transport money* | | |
| • *Lack of living costs expenses: food, groceries, clothes* | | |
| • *Lack of finances for printing, internet* | | |
| • *Problems related to NSFAS* | | |
| • *Single parent* | | |
| • *FeesMustFall* | | |
| **TOTAL** | **203** | **100** |

### *4.4.3.1    Financial issues (hassle)*

Financial issues (n=203, 100%) were a great concern as indicated by table 4.8. Financial concerns were reflected in problems relating to bursaries as well as those who do not have a bursary and have to rely on parental support. At times bursary pay-outs could be delayed and the stress that accompanied this increased when they had to deal with accounts that needed to be paid. Furthermore, the financial difficulties (hassle) placed the participants in an emotional state of uncertainty about their future. This was illustrated in statements such as *"Why bother studying when I might not be able to finish my course"*.

Socio-economic disadvantages where the mother was unemployed and the father a pensioner also caused the participants distress. Furthermore, five members mentioned that an issue was that they depended on a mother's social grant. Therefore, costs of living and expenses were an additional stressor. A notable problem was that some participants (n=72, 35%) mentioned that they did not have money for the basic expenses such as food and would attend classes without having something to eat. This caused lack of concentration during class.

Money for transport was also a huge problem. Participants mentioned that they will borrow money from friends to travel to the college or stay at home. Participants also stayed at home due to a lack of transport money and finally owed clinical hours.

### 4.4.4    Question 4: Describe your financial circumstances that are a positive (uplifting) experience for you; it therefore motivates and improves your academic performance

**Table 4.9: Financial circumstances that are a positive (uplifting) experience and improve your academic performance (n=55, 100%)**

| **Financial circumstances that are a positive (uplifting) experience for you. It therefore motivates and improves your academic performance** | **n** | **%** |
|---|---|---|

| Financial support | 55 | 100 |
|---|---|---|
| • *Have a bursary* | | |
| • *Fees paid by NSFAS* | | |
| • *Family members' financial support* | | |
| • *Parents' company pay fees* | | |
| • *SASSA money* | | |
| • *No financial problems* | | |
| • *Pay own course* | | |
| **TOTAL** | **55** | **100** |

### 4.4.4.1 *Financial circumstances (uplifting)*

Financial circumstances that uplifted participants were when fees were paid by family members, bursaries, NSFAS or when the parents' company for which they work paid the fees. Only a few participants mentioned that they had no financial problems. SASSA money was also used to pay student fees.

### 4.4.5 Additional responses to questions about hassles

Additional distresses that were reported as hassles were academic stressors, problems related to the residence, clinical placements, nurse educators, and clinical facilitators.

**Table 4.10: Additional responses to questions about hassles (n=138, 100%)**

| Additional responses to questions about hassles | n | % |
|---|---|---|
| **Academic stressors** | 86 | 62 |
| **Residences** | 20 | 14.5 |
| **Clinical placements** | 19 | 14 |
| **Nurse educators** | 11 | 8 |
| **Clinical facilitators** | 2 | 1.5 |
| **TOTAL** | **138** | **100** |

### 4.4.5.1 *Additional responses (hassles)*

Academic stressors (n=86, 62%) perceived by participants were related to the submission of assignments, specifically (a) lack of group participation, (b) writing skills, (c) time allocated for assignments, and (d) the inaccessibility of resources such as computers and photocopier machines. Financial constrains that minimised their ability to do research (access to internet/laptop/Wi-Fi) and being unable to make photo copies were also huge distresses that

affected their academic performance. Adjusting to the rigorous academic expectations of higher education and ineffective time management were some of the stressors perceived by participants.

Dealing with the long college hours, structured curriculum (academic programme), and the lack of breaks during the year were described as difficult situations for participants. Furthermore, the participants faced a lot of problems regarding time management and lack of self-discipline, which had a negative impact on their academic performance due to poor preparation for formative and summative assessments. Some participants indicated laziness, poor planning, and too many distractions (entertainment) as reasons. To compensate for the lack of money, participants would work over weekends, which influenced their academic performance and led to physical and emotional exhaustion. Misbehaviour of other students in class caused frustration for some participants.

Some of the participants (n=20, 14.5%) indicated that the noise in the residences was one of their main complaints and therefore it was difficult to study. Furthermore, the fact that there was no entertainment or activities at the residence was stressful. Some of the participants tried to compensate for the lack of entertainment by doing physical activities (jogging, hiking, gym).

The negative stress (hassle) that participants experienced during clinical placement (n=19, 14%) was the difference between how theory was supposed to be integrated in clinical practice and what happens in the real world. This was illustrated by comments such as "*We are not exposed to the amount of theory and practice we should get*" and "*We are doing things that is not in our scope of practice*". Their perception was that too many hours were allocated for clinical practice and this put a high demand on their academic performance.

Only a few participants (n=11, 8%) referred to nurse educators as a hassle. Insufficient support from nurse educators was a problem. According to the participants, there was a discrepancy between what lecturers said is important (scope) to study and what they asked in tests and examinations. Furthermore, participants mentioned nurse educators' poor responses to e-mails, especially when students send their assignments, as well as a lack of feedback after summative assessments as a hassle.

Clinical facilitators (n=2, 1.5%) were a hassle for participants because of the discrepancy regarding mark allocation during practical assessments. Furthermore, participants reported that clinical educators were not as useful as they should be.

### 4.4.6    Additional responses to questions about uplifting

**Table 4.11: Additional responses to questions about uplifting (n=82, 100%)**

| Additional responses to questions about uplifting | n | % |
|---|---|---|
| **Academic stressors** | 27 | 33 |
| **Nurse educators** | 27 | 33 |
| **Clinical placements** | 20 | 24 |
| **Clinical facilitators** | 4 | 5 |
| **Residences** | 4 | 5 |
| **TOTAL** | **82** | **100** |

#### *4.4.6.1    Additional responses (uplifting)*

Academic uplifting experiences (n=27, 33%) perceived by participants included peer support in the form of study groups. Study groups influenced participants' academic performance positively through work-related discussions, motivation to work harder, competition between members, and support. Participants also drew on each other's understanding in sharing information.

The comments from participants regarding nurse educators (n=27, 33%) showed a variety of support from lecturers such as revision classes, posting lectures on the Facebook page, encouragement for them to read more books, and feedback after assessments.

Clinical placements (n=20, 24%) empowered many participants and were a source of eustress. Participants commented that the practical experience put a *"better understanding to theory, make me feel like a professional person, learning new things was a great joy and enjoy being surrounded by people"* (patients).

Participants indicated that clinical educators (n=4, 5%) will engage with them and drive them to do their best in the clinical field.

The positive side to staying in the residences (n=4, 5%) was that participants appeared to have more time to study in their own rooms.

## 4.5     SECTION C: COPING STRATEGIES

Lazarus and Folkman (1984:141) define coping as the cognitive and behavioural efforts to control, decrease or tolerate the external and internal demands that are created by stressful events.

For the purpose of this study, the coping strategies of Paul Wong were used because he measures coping in a comprehensive way within a sociocultural context (refer to Chapter 2) applicable to the South African situation. Nine coping strategies were identified by Wong *et al.* (2006:43-70): social, situational, passive emotional, active emotional, situational, religious, self-restructuring, acceptance, and tension reduction. Participants were asked to rate each item by using a scale from 1 to 5. Therefore, 1 indicates not at all (never) and 5 indicates a great deal (always). A mean score closer to 5 indicated a high coping strategy for the specific item.

To ease the interpretation, the mean and standard deviation (SD) are reported in the tables below.

### 4.5.1    Social support

Social support as a coping strategy is when a person seeks emotional support or advice from others such as family, friends, and loved ones (Wong *et al.*, 1993:231). It can be seen as a functional aspect of problem-focused coping depending on the type of support. The questions related to social support were 1, 22, 45, 53, 56 and 75.

**Table 4.12: Sources of stress: Coping strategies: Social support**

| | Variable: Social support | n | Mean | SD |
|---|---|---|---|---|
| 1 | Rely on others to do what I cannot do myself | 207 | 2.1 | 1.1 |
| 22 | Rely on people who have successfully coped with the problem | 206 | 2.7 | 1.3 |
| 45 | Rely on available connections to solve problems | 202 | 3.0 | 1.0 |
| 53 | Receive practical help from friends | 204 | 3.0 | 1.1 |
| 56 | Depend on the experts and follow their advice | 204 | 3.0 | 1.2 |
| 75 | Depend on opinions of people who have experienced similar problems | 204 | 3.0 | 1.1 |

The majority of participants (between n=204 to n=207) answered this question. Participants mostly valued support from others that can help them solve a problem, as well as practical help from friends, experts, and others who have experienced similar problems. The highest was a mean score of 3.0. Independence and relying on other people were rated the lowest mean score of 2.7 as a coping strategy used by most of the participants (n=207, 98%).

### 4.5.2   Situational coping

Situational coping is when a person tried to understand the problem in a different light that made it seen more manageable (Peacock *et al.*, 1993:71). Questions 2, 5, 11, 23, 29, 38, 51and 62 are related to situational coping strategies.

**Table 4.13: Sources of stress: Coping strategies: Situational**

| | **Variable: Social support** | **n** | **Mean** | **SD** |
|---|---|---|---|---|
| 2 | Do something about the situation | 207 | 3.8 | 1.0 |
| 5 | Confront the problem by taking the appropriate actions | 207 | 3.7 | 1.1 |
| 11 | Break down the problem in smaller steps and work on one at a time | 205 | 3.4 | 1.2 |
| 23 | Take the problem into my own hands to face challenges rather than avoid them | 207 | 3.7 | 1.1 |
| 29 | Actively seek out information on my own | 204 | 3.7 | 1.0 |
| 38 | Make a plan of action and follow it | 204 | 3.6 | 1.1 |
| 51 | Be determined and persistent in attacking the problem | 204 | 3.4 | 1.0 |
| 62 | Double my effort to change the situation | 204 | 3.5 | 1.1 |

The above data illustrates a good response from participants (n=207, 98%). Most of the participants (n=207, 98%) indicated that they will react and do something about a stressful situation (mean score of 3.8). Other high situational coping strategies with a mean score of 3.7 were confronting the problem by taking action (n=207, 98%), taking the problem into their own hands to face the challenges (n=207, 98%), and seeking information on their own (n=204, 96.5%). The results indicated that problem-based coping strategies were used by them.

### 4.5.3    Passive emotional coping

Passive emotional coping can be viewed as an avoidance method where the individual experiences helplessness (Findik, Ozbas, Cavdar, Topcu & Onler, 2015:194). The person does not want to approach the specific problem and, therefore, wants to run away from the problem, wishing that a miracle will happen, feeling sorry for themselves or trying to forget about a situation (Findik *et al.*, 2015:191-194).

**Table 4.14: Coping strategies: Passive emotional**

| Variable: Social support | | n | Mean | SD |
|---|---|---|---|---|
| 3 | Wish that I could undo the past | 207 | 3.1 | 1.5 |
| 8 | Run away from the problem or situation | 206 | 1.8 | 1.0 |
| 16 | Suppress or avoid facing my own emotions | 205 | 2.6 | 1.2 |
| 18 | Feel guilty for what has happened | 206 | 3.0 | 1.3 |
| 30 | Wish that I were a different person | 205 | 2.4 | 1.4 |
| 31 | Feel ashamed of my inadequacies | 204 | 2.4 | 1.2 |
| 35 | Wish that a miracle or something fantastic would happen | 204 | 3.7 | 1.2 |
| 40 | Ignore the problem and pretend that it doesn't exist | 202 | 2.2 | 1.2 |
| 42 | Wish that the situation was different | 204 | 3.3 | 1.3 |
| 50 | Feel sorry for what I have done | 205 | 3.0 | 1.4 |
| 65 | Blame myself for what has happened | 204 | 2.6 | 1.4 |

Participants responded well to this question, as the lowest response rate was 96% (n=202). Some participants (n=204, 96.5%) wished that the situation was different with a mean score of 3.3 (SD 1.3) followed by most participants (n=207, 98%) who wished they could undo the past with a mean score of 3.1. One of the passive emotional coping strategies was to run away from the problem (mean score 1.8) and was rated lowest by many participants (n=206, 97.5%).

### 4.5.4   Active emotional coping

Active emotional coping differs from passive coping in the sense that there is a specific action and effort from the individual to seek help from others without solving the problem (Peacock *et al.*, 1993:69).

**Table 4.15: Coping strategies: Active emotional**

| | Variable: Active emotional | n | Mean | SD |
|---|---|---|---|---|
| 4 | Express my feelings and thoughts | 205 | 3.3 | 1.3 |
| 13 | Confront and understand my own feelings | 207 | 3.7 | 1.2 |
| 17 | Air my complaints and frustration | 205 | 2.9 | 1.3 |
| 26 | Share my feelings with a confidant | 204 | 3.3 | 1.4 |
| 39 | Look to others for moral support | 205 | 3.1 | 1.1 |
| 52 | Seek emotional support from others | 203 | 2.8 | 1.2 |
| 61 | Release my suppressed emotions | 203 | 3.3 | 1.0 |
| 68 | Depend on friends for emotional / moral support | 204 | 2.7 | 1.1 |

There were mostly good responses to the active emotional coping strategy questions. Participants (n=207, 98%) indicated that they confront and understand their own feelings with the highest mean score of 3.7, followed by expressing their feelings (n=205, 97%), sharing their feelings with a confidant (n=204, 96.5%), and releasing their suppressed emotions (n=203, 96); all with a mean score of 3.3. Participants (n=204, 96.5%) rated dependence on friends for emotional support with the lowest mean score of 2.7.

### 4.5.5    Religious coping

Religious coping, as mentioned in the literature review section 2.6.1, means that a person relies on God for support (Wong *et al.*, 2006:70). The religious coping strategy might uplift the individual in times when hope is needed.

**Table 4.16: Coping strategies: Religious**

| | Variable: Religious | n | Mean | SD |
|---|---|---|---|---|
| 6 | Believe that I can communicate with God* | 208 | 4.6 | 0.9 |
| 7 | Do what is necessary to maintain a personal relationship with God* | 206 | 4.3 | 0.9 |
| 28 | Do what is necessary to maintain a personal relationship with God* | 205 | 4.5 | 0.9 |
| 36 | Seek help and direction from God* | 202 | 4.6 | 0.8 |
| 43 | Believe that God* will answer prayers | 204 | 4.6 | 0.8 |
| 46 | Follow religious principles | 202 | 3.8 | 1.2 |
| 55 | Pray to God* | 205 | 4.5 | 0.9 |

| 66 | Believe in the almighty God* | 205 | 4.6 | 0.8 |

The above responses from participants showed how strongly they rated religious coping. God* refers to any personal source of spiritual power as explained in Section C and may include religious orientation. Religious coping was also rated the highest by participants with a mean score of 4.6 for four of the items: believe in God (n=204, 96.5%), seek help from God (n=202, 96%), believe that He will answer their prayers (n=204, 96.5%), and believe in the Almighty God (n=205, 97%). Participants rated following religious principles as the lowest.

### 4.5.6    Self-restructuring

With self-restructuring, as mentioned in Chapter 2 section 2.6.2, the person tries to change their behavior and cognitive processes by restructuring themselves (Wong *et al.*, 2006:69). The focus is on solving the problem.

**Table 4.17: Coping strategies: Self-restructuring**

| Variable item: Self-restructuring | | n | mean | SD |
|---|---|---|---|---|
| 09 | Do what is necessary to fulfil the requirements of the situation | 208 | 3.8 | 0.9 |
| 20 | Change my negative attitude towards this problem into a positive one | 204 | 3.6 | 1.2 |
| 21 | Change my pace (slower or faster) of work to suit the situation | 206 | 3.6 | 0.9 |
| 49 | Change my attitude in view of this problem | 205 | 3.3 | 0.9 |
| 54 | Restructure my actions in light of the problem | 204 | 3.3 | 0.9 |
| 58 | Try to look at the problem from a new perspective | 205 | 3.5 | 0.9 |
| 59 | Rearrange my activities to accommodate the situation | 205 | 3.4 | 0.9 |
| 64 | Develop better time management skills so that I will be more efficient in the future | 203 | 3.5 | 1.1 |

The participants reported high mean scores for self-restructuring, which is problem-based coping. Furthermore, the highest participant response rate was n=208 (98.5%). The highest mean score of 3.8 was "to do what is necessary to fulfil the requirements of a situation" was indicated by most of the participants (n=208, 98%) and 3.6 for "change my negative situation

and change my pace". The lowest mean score of 3.3 was indicated by participants for both "change my attitude in view if the problem" (n=205, 97%) and "restructure my actions in light if the problem" (n=204, 96.5%).

### 4.5.7    Acceptance

Acceptance occurred when an individual accepted that a problem occurred (Wong *et al.*, 2006:231). It can be a negative coping style because the person is passive. However, it can also be seen as mindfulness, which may decrease stress (Wong *et al.*, 2006:231).

**Table 4.18: Coping strategies: Acceptance**

| Variable item: Acceptance | | n | mean | SD |
|---|---|---|---|---|
| 12 | Learn to live with the problem, because nothing much can be done | 206 | 2.8 | 1.3 |
| 14 | Accept / tolerate life as it is and make the best of it | 202 | 4.0 | 1.0 |
| 15 | Learn to accept the negative realities of life | 206 | 3.5 | 1.2 |
| 24 | Look at unavoidable events as part of my lot in life | 204 | 3.1 | 1.1 |
| 41 | Avoid thinking about the problem or things that are upsetting me | 204 | 2.8 | 1.4 |
| 57 | Look at the humorous side of this problem | 204 | 3.1 | 1.0 |
| 63 | Don't worry about the past or the future, accept each day as it comes | 204 | 3.4 | 1.3 |

Many participants answered these questions on acceptance as a coping strategy. Acceptance was not so frequently used in contrast with the other types of coping strategies. Participants (n=202, 96%) indicated the highest mean score of 4.0 to "tolerate life as it is", followed by other participants (n=206, 97.5%) indicating "learning to accept the negatives of life" with mean score of 3.5. The lowest mean scores of 2.8 were indicated for "learn to live with the problem because nothing much could be done" (n=206, 97.5%) and "avoid thinking about the problem or things that were upsetting" (n=204, 96.5%).

### 4.5.8    Tension reduction

With tension reduction, the person tries to relieve their stress through meditation or relaxation (Wong *et al.*, 2006:231).

**Table 4.19: Coping strategies: Tension reduction**

| Variable item: Tension reduction | | n | mean | SD |
|---|---|---|---|---|
| 19 | Practice controlled breathing techniques | 206 | 2.6 | 1.4 |
| 25 | Engage in mental exercises (such as form mental pictures of things/events to reduce tension) | 204 | 2.8 | 1.3 |
| 27 | Try to reduce my anxious thoughts | 205 | 3.4 | 1.1 |
| 44 | Mentally transform the situation into something less threatening | 205 | 3.1 | 1.1 |
| 47 | Try not to focus on likely negative outcomes | 203 | 3.5 | 1.2 |
| 48 | Practice muscle relaxation techniques | 202 | 2.5 | 1.3 |
| 71 | Remind myself that worrying will not accomplish anything | 203 | 3.8 | 1.1 |
| 72 | Practice meditation techniques to reduce tension | 204 | 2.5 | 1.3 |
| 73 | Use drugs on a regular basis to escape from my problems | 203 | 1.4 | 0.9 |
| 74 | Use alcohol on a regular basis to escape from my problems | 204 | 1.5 | 1.0 |

Participants rated tension reduction as a strategy not frequently used by them with lower mean scores. The tension reduction coping strategy most often used by participants (n=203, 96%) was not to worry as worrying will accomplish nothing (mean score 3.8). Drugs and alcohol were not regularly used by participants with low mean scores of 1.4 and 1.5, respectively.

### 4.5.9 Meaning

Meaning as coping strategy is a method used when individuals tried to find meaning in a certain situation (Wong *et al.*, 2006:231-232).

**Table 4.20: Coping strategies: Meaning**

| Variable item: Meaning | | n | mean | SD |
|---|---|---|---|---|
| 37 | Believe that there must be a purpose in the suffering I experience | 204 | 3.9 | 1.1 |
| 60 | Believe that there is meaning and purpose to the things that happen to me | 205 | 4.0 | 0.9 |
| 67 | Believe that valuable lessons can be learnt from undesirable experiences | 205 | 4.0 | 0.9 |
| 70 | Obtain meaning from my past | 205 | 3.4 | 1.1 |

Finding meaning in something as a coping strategy was well responded to by participants. Most participants (n=205, 97%) rated "believe that there is meaning and valuable lessons to learnt" as the highest coping strategies with mean scores of 4.0. The same amount of participants also indicated the lowest mean score (3.4) for obtaining meaning from their past experiences.

## 4.6    STATISTICAL COMPARISONS OF SOURCES OF STRESS AND COPING STRATEGIES

### 4.6.1    The association between the stressors and the type of coping strategies used by students

To determine the association between the stressors and coping strategies of nursing students, a Pearson's product-moment correlation analysis was done (Table 5.1). A positive relationship was found between the general uplifting stressors and self-restructuring (r=0.446, p<0.001).

#### 4.6.1.1    *Teaching and learning (hassle/uplifting)*

A negative correlation was found between the learning and teaching hassles and passive emotional coping strategies (r=0.195, p<0.05). Furthermore, there was a positive relationship between teaching and learning upliftments and situational coping (r=0.399, p<0.01).

#### 4.6.1.2    *Teaching and learning/course organisation (hassle/uplifting)*

The teaching and learning/course organisation hassles were negatively related to social support (r=-0.051) and situational (r=-0.056) coping. Moreover, the upliftments were positively related to social support (r=0.295, p<0.01), situational support (r=0.367, p<0.01), and self-restructuring (r=0.406, p<0.01). The aforementioned results indicated problem-based coping strategies that were used by the participants.

### *4.6.1.3    Course organisation (uplifting)*

The course organisation upliftments relate positively to situational and self-restructuring coping strategies (r=0.255, p<0.01).

### *4.6.1.4    Support (hassles)*

Pearson's correlation for support hassles confirms that participants used active emotional coping (r=0.290, p<0.01), situational support (r=0.292, p<0.01), and self-restructuring (r=0.253, p<0.01) when experiencing stress.

### *4.6.1.5    Clinical placements (uplifting)*

A positive correlation was found between clinical placement as uplifting and active emotional coping (r=0.290, p<0.01), situational support (r=0.292, p<0.01), and self-restructuring (r=0.253, p<0.01).

**Table 4.21: Pearson's correlations between the stressors and the type of coping strategies used by students**

| Stressors | Social | Situational | Passive emotional | Active emotional | Religious | Self-restructuring | Acceptance | Tension reduction | Meaning |
|---|---|---|---|---|---|---|---|---|---|
| Uplift | 0.291** | 0.398** | -0.198* | 0.246** | 0.174* | 0.446** | 0.171* | 0.256** | 0.182* |
| Hassle | -0.019 | -0.029 | -0.135 | -0.056 | -0.083 | -0.068 | -0.011 | -0.023 | -0.057 |
| T&L (U) | 0.210 | 0.399** | 0.188 | 0.223 | 0.098 | 0.415 | 0.152 | 0.184 | 0.106 |
| T&L (H) | -0.003 | -0.030 | -0.195* | -0.106 | -0.006 | -0.081 | -0.031 | -0.069 | 0.047 |
| T&L,C (U) | 0.295** | 0.367** | 0.163* | 0.212** | 0.167 | 0.406** | -0.193* | 0.295** | 0.191 |
| T&L, C (H) | -0.051 | -0.056 | 0.141 | 0.056 | 0.068 | 0.068 | 0.012 | 0.051 | 0.052 |
| Course org (U) | 0.048 | 0.232** | 0.121 | 0.096 | 0.022 | 0.255** | 0.031 | 0.106 | 0.026 |
| Course org (H) | 0.024 | 0.041 | 0.112 | 0.029 | 0.092 | 0.096 | 0.025 | 0.028 | 0.022 |
| Support (H) | 0.222** | 0.292** | -0.067 | 0.290** | 0.103 | 0.253** | 0.121 | 0.183* | 0.197** |
| Support (U) | 0.005 | 0.002 | 0.038 | -0.031 | 0.049 | 0.036 | 0.015 | 0.055 | 0.086 |
| Clinical P (U) | 0.222** | 0.292** | 0.067 | 0.290** | 0.103 | 0.253** | 0.121 | 0.183* | 0.197** |
| Clinical P (H) | 0.005 | 0.002 | 0.038 | -0.031 | 0.049 | -0.036 | -0.015 | 0.055 | 0.086 |

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

## 4.7     SUMMARY AND CONCLUSION

In chapter 4, the researcher explained how the data was analysed. Furthermore, all the data was summarised in tables followed by a discussion of each stressor and coping strategy. The open-ended questions were organised by themes on tables and with a discussion of each.

Chapter 5 will focus on a discussion of each objective, the hypothesis, limitations of the study, the recommendations, and dissemination.

# CHAPTER 5:

# DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

## 5.1    INTRODUCTION

The researcher reflects on the findings in this chapter. The focus of the study was to give a description of undergraduate nursing students' stressors (hassle/uplifting) and the coping strategies used by them. The study gave an insight into these questions. The researcher will discuss the results of the study according to the objectives, hypothesis, limitations, and recommendations for further studies.

## 5.2    DISCUSSION

The aim of the study was to identify stressors and coping strategies among BTech nursing students studying towards becoming a registered nurse. A brief discussion of the findings of each objective as it relates to this study will follow, namely, to

- Identify stressors (distress, eustress) as experienced by nursing students
- Identify the coping strategies used by these students to relieve their stress
- Determine the association between the stressors and the method of coping strategies used by the students.

### 5.2.1    Objective 1: The stressors (distress, eustress) as experienced by nursing students

The first research question to be answered was: What are the stressors of BTech nursing students at a nursing education institution? Data analysis (Chapter 4) revealed that certain stressful situations, for example to critically analyse (Table 4.1) and learning (Table 4.2), caused nursing students to become either distressed or motivated by stressful situations Motivation evoked a positive experience, which helped them to be more determined in order to be successful. The abovementioned examples were evident in the data as indicated in tables 4.1 and 4.2 with some of the mean scores in the middle ranges. The mean score is the average of all scores, which is a measure of central tendency (LoBiondo-Wood & Harber, 2010:58).

The findings of this study were consistent with other researchers in that an approach just to measure stressors as negative (distress) and not ignore the positive aspect (eustress) are scientifically rigorous (Gibbons, 2010:1300). Both the hassles and upliftments were rated on

a five point Likert scale. The results indicate that the uplifting mean scores (3.1-3.3) were higher than the scores for hassles (2.5-2.7) signifying that students did not have a problem with interpreting and rating stress as a potential influence to succeed. These findings were therefore in line with Gibbons (2009:1307). Previous studies reported that burnout in nursing students was more profound and in response to distress (Gibbons 2010:1307; Michalec *et al.*, 2013:317). This was also found in the emotional tone of the words used by students when answering the open-ended questions. Nevertheless, according to the Yerkes-Dodson curve (1908), as illustrated in Figure 1, a certain amount of stress is needed to achieve an ideal level of performance but stress must never overpower the person.

The teaching and learning categories (Table 4.1, section 4.3.1) in combination with the course organisation were found to be the strongest predictors of individual achievement. Although presenting in class was stressful, students reported the aforementioned as a positive stress (eustress) that enhanced their performance. Participants ascribed the students' reports to be due to personal achievement and lecturers' positive responses to their presentations.

The pace and intensity as well as the volume of work that students experienced as a distress (Table 4.1, section 4.3.1), were in agreement with the general feelings of other nursing students globally (Gibbons *et al.,* 2010:628; Khater *et al.,* 2014:200). Furthermore, this study is consistent with other studies (section 2.3.2.1) indicating that students experienced stress due to written assignments and examinations (Jimenez *et al.*, 2010:442; Shaban *et al.*, 2012: 204; Khater *et al.*, 2014:198). Ineffective time management (section 4.3.2) regarding academic work was acknowledged by students in the open-ended questions, as well as lack of self-discipline (relaxed too much). Therefore, the workload could have been even more stressful. Wolf *et al.* (2015:203) concur that a lack of time and ineffective time management, as reported by the students in this study, corresponded with other students' experiences.

Nursing students scored distress levels (hassles) with mean scores of 2.7 (assignments) and summative assessments (3.0). A notable aspect in the findings was that although students rated the stress levels high for summative assessments and assignments, at the same time, they experienced it as uplifting with much higher mean scores of 3.7 and 4.0, respectively. This was inconsistent with other studies and may be due to the individuals' own interpretation of the significance regarding such types of assessments.

Another noteworthy factor was that students rated distress for their formative assessments lower than they did for the summative assessments. Duers & Brown (2009:658) support that students' experiences of formative assessments and that summative assessments take

preference over formative assessments. However, in this study, there was an inconsistency regarding the timing of constructive feedback on students' formative assessments and therefore it was a distress and uplifting (Table 4.3, section 4.3.3).

It was clear from the results of this study that the behaviour of other students in the classroom caused distress to students (Table 4.3, section 4.4.5.1). The results reported were in agreement with the findings of Langeveldt (2015:44) and of Morrisette *et al.*, (2010:519) who mentioned that the behaviour of fellow students may cause distress and, therefore, affect the emotional well-being of other students. BTech nursing students in this study also reported in their open-ended questions (section 4.4.5.1) that misbehaviour of other students, such as coming late and noise in class, was distressing for them. It also appeared that students expected lecturers to use their authority to maintain order in class because they rated it as a minor hassle and major eustress with a high mean score of 3.1 (Table 4.2, section 4.3.2).

Overall, it appeared that students have certain issues regarding course organisation. It is important, as mentioned by Morissette and Doty-Sweetnam (2010:520), that a positive learning environment be created through the use of effective communication as well as appropriate social and interpersonal boundaries in order to improve the well-being of students. Nurse educators also have to apply the necessary policies and procedures to ensure the smooth running of the programme.

Questions related to problem-based learning were rated higher as an upliftment than a hassle (Tables 4.1 and 4.2). The results are in agreement with a study indicating that problem-based learning is still in its early stages of transforming the classic didactic teaching model into problem-based learning. Therefore, students might struggle to adapt (Klunklin, Subpaiboongid, Keitlertnapha, Viseskul & Turable, 2011:370). This may be why students experience critical thinking and problem-based learning as hassles. The positive rating of PBL as an upliftment may indicate that students feel empowered with this type of teaching.

The results regarding support were in agreement with other studies that indicated support as an integral part of emotional well-being (Reeve *et al.*, 2012:420; Gibbons, 2013:419). Students rated support from family and friends higher (mean score 4.1) than the support from lecturers and fellow students (Table 4.4). Support from family, friends, and significant others were rated higher in the open-ended questions while rating support as a hassle was below the mean score of 2.5. It was noted that participants used their peers (Table 4.4) less frequently (mean score 3.2) than their lecturers (Table 4.4) with a mean score of 3.6. This contrasts with other studies where students used their peers more often for support

(Gibbons *et al.*, 2010:1299; Reeve *et al.*, 2012:419). According to Gibbons (2012:30), it is important for students to network.

Stressors related to guidance and practice in preparation for students' practical assessments, clinical experiences, and how clinical skills are practiced compared to what they learn were distresses for them. This finding is consistent with other studies (Shaban *et al.*, 2012:204). A notable aspect, which is encouraging to know, was that students rated patient care as a huge upliftment, not only in the closed questions (Table 4.5) but also in responses listed for the open-ended questions (section 4.4.6.1). This was unlike other studies indicating that students experienced patient care as a huge distress (Khater *et al.*, 2014:200).

Financial stressors, especially in the current economic and political climate, are huge stressors as reported by the students (Table 4.8, section 4.4.3.1). Currently it appears as if the National Student Financial Aid Scheme (NSFAS) must be reviewed and the way in which bursaries are assigned is not sufficient and need to be change. The Heher Commission report, as announced by President Jacob Zuma regarding the funding of higher education, mentioned that banks will issue governance guaranteed finances for all students (Heher, 2017). Should the students therefore fail to reach the required income threshold, government reveals secondary liability (Heher, 2017).

### 5.2.2    Objective 2: The coping strategies used by students

The second research question to be answered was: What are the coping strategies of BTech nursing students at a Western Cape higher education institution?

The results of this study revealed that nursing students at the institution concerned use a variation of coping strategies. The different coping strategies that were tested are as follows: passive and active emotional coping, religious coping, self-restructuring, acceptance, tension reduction, meaning, situational support, and social support. These results were consistent with other studies (Singh, Sharma & Sharma, 2011:52). Students can also use different coping strategies depending on what is most appropriate in the situation.

The mean score for religious coping was the highest of all the coping strategies. The mean score of most of the items were 4.5 and 4.6. A noteworthy factor was that, although not elicited in the open-ended questions, participants indicated positive religious practices as a personal upliftment. The findings are different from other studies that reported positive thinking, social support (Wolf *et al.*,2015:201), problem-solving (Shaban *et al.*, 2012:204), and avoidance coping (Singh *et al.*, 152) as the coping strategies most frequently used by

students. Moreover, students might feel that religious beliefs are a foundation that makes them feel stronger, comfort them when facing difficulties during daily demands, and add meaning to life (Wong & Wong, 2006:231). Certain psychosocial and cultural features, such as being religious, need to be taken into account when assessing students' coping strategies (Mahmoud, Staten, Hall & Lennie, 2012:149). It could be assumed that, when students experienced difficulties such as with finances, they based their coping mechanisms on hope from God.

Students also reported self-restructuring as a coping strategy often used by them. Self-restructuring includes behavioural, cognitive, and personal changes (Wong *et al.,* 236). This is an active problem-solving coping strategy that is controllable by the individual (Wong *et al.*, 2009:236). Situational coping was another strategy students used to cope and is similar to problem-based coping (Peacock, Wong & Reker, 1993:71). The students reported that they tried to use many different ways of looking at the situation and trying to change it (Table 4.13).

A passive emotional response was less reported as a coping strategy than active emotional responses. These methods are used in conditions that are less controllable (Wong *et al.,* 2009:236). This was not consistent with other studies were students reported their use of emotional coping more often (Lim *et al.*, 2010:22). With passive-emotional coping, there was no personal transformation that took place, for example, when participants wished a miracle would happen (mean score of 3.7). Therefore, as mentioned in the literature review, emotional coping can affect daily functioning and is dysfunctional (Lim *et al.*, 2010:22). With active emotional coping, it seems as if students are more content in receiving support from those with experience.

Avoidance coping, which is not directed towards the problem, is a type of emotional coping and was not reported as a coping strategy of choice with three mean scores of 3.5 and higher. Furthermore, avoidance coping can be related to personality types, the way an individual grew up, and their experiences with stress (Shaban, 2012:209). According to Gibbons *et al.* (2010:630), ineffective coping strategies can have an opposite effect when frequently used. It is therefore important for students to use the correct coping mechanism.

Emotional support in the form of social support has been reported as a helpful strategy not only in the closed- but also in the open-ended questions. This finding is consistent with other studies (Wolf *et al.*, 2014:201; Mahmoud *et al.*, 2012:149). Social support as a coping strategy safeguards a person from the emotional impacts of exposure to stress because they

actively try to find solutions for their problems, therefore trying to adapt to the situation (Mahmoud *et al.*, 2012:149).

Other studies indicated that only a few students will turn to drugs and alcohol to cope (Wolf *et al.*, 2014:202). The findings of this study are therefore in agreement with other studies because the mean score for drugs were low – only 1.4 and 1.5 for drugs and alcohol, respectively. Tension reduction where individuals used relaxation and meditation to reduce their stress was reported as not a frequently used coping strategy with lower mean scores (Table 4.19).

Nursing students also reported meaning (Table 4.20) as a coping strategy that they used frequently with mean scores varying from 3.4 up to 4.0. Although meaning can create a sense of meaning in daily life situations, it is not a very productive way of coping and creates an opportunity to minimise self-efforts (Wong *et al.*, 2006:231). The researcher could not find studies that frequently used meaning as a coping strategy and it is more obvious in patients dealing with traumas and diseases such as cancer. Meaning as a coping mechanism, motivates individuals and empowers them to endure with hope (Wong *et al.,* 2006:16). In conclusion, it seems as if different coping strategies were used and therefore different coping strategies may be effective for specific kinds of stress.

When studying stress and coping in a multicultural setting, it is important to know that there are healthy and toxic elements in each culture (Wong, Wong & Scott, 2006:5). Therefore, we need to ask ourselves what those elements are.

### 5.2.3    Objective 3: The association between the stressors and the type of coping strategies used by the students

The hypothesis was proven correct since students experience both distress and eustress and they are able to cope. A positive correlation was reported between the positive (uplifting) stressors and coping strategies such as social support, passive emotional coping, active emotional coping, religious coping, self-restructuring, acceptance, tension reduction, and meaning as indicated in table 4.21. Table 4.7 indicates the participants' narrative responses to open-ended questions regarding their personal circumstances that they experience as positive (uplifting).

BTech undergraduate nursing students valued support from family and friends the most (n=96, 43%) of all the social support that positively impacts their academic performance (Table 4.7). Responses to questions on social support (Table 4.12) indicated the highest mean score of 3.0 for the following strategies: relying on available connections to solve

problems; receiving practical help from friends; depending on the experts and following their advice; and depending on opinions of people who have experienced similar problems. However, a negative association was found between positive (uplifting) stressors and passive emotional coping strategies (Table 4.21). The types of passive emotional coping strategies indicated by participants (section 4.5.3) were responses to the closed-ended questions (Table 4.14) with the highest mean score (3.7) for unrealistic expectations, for example "wish[ing] that a miracle or something fantastic would happen". The lowest mean score (1.8) was for "running away from the problem or situation".

## 5.3    LIMITATIONS OF THE STUDY

The findings of the study were representative of only one higher education institution in the urban part of the Western Cape and therefore the generalisability of the outcomes to other nursing institutions are limited. It would be best to include the rural area as well because students may have different stressors and coping strategies owing to their different physical and socio-economic settings. Futhermore the study population and partcipant sample was dominated by females , thus should be interpreted with caution. The results may be biased towards a particular gender. Because this study did not include a comparison of stress and coping skills ascross gender lines, it would be appropriate to investigate that in a follow-up study.

The structured questionnaire may have limited the in-depth understanding of participants' responses to stress and other types of coping strategies not listed in the questionnaire. The questionnaire regarding stressors could contain elements causing mis-understanding/-interpretation although students did not indicate it as a problem. Both the questionnaires were quite lengthy. The danger of a self-structured questionnaire could have been that students would answer some of the questions in such a manner that it is socially attractive for them. For example, in "run away from the problem or situation" it is more socially attractive to indicate never than always (Section C, question 8) on the coping strategies questionnaire. Nevertheless, the qualitative component that was incorporated in the questionnaire allow the participants to add extra in-depth information regarding their stress and coping.

The students' campus protest action also had an effect on the target population because the programme had to be rescheduled. As previously mentioned in section 3.5, the total amount of students on the register were 590. However, this total was not defnitive. Furthermore, a non-probability convenience sampling method was used, which limited the sample size.

## 5.4    RECOMMENDATIONS

### 5.4.1    Creating a positive and caring learning environment

Nurse educators should not lose sight of the fact that minor changes in how they interact with nursing students in their roles as educators can have a powerful effect on students' overall well-being. Becoming cognisant of what causes stress and how students cope can contribute to a positive learning climate. Another important aspect is that educators have to uphold the code of conduct of the profession and must therefore establish and reinforce the ground rules in class to ensure professional behaviour.

### 5.4.2    The promotion of problem-based learning

Nurse educators should take care not to ignore learning opportunities that enhance eustress, such as students presenting in class. Therefore, it is recommended that problem-based learning must be incorporated as an essential part of the teaching and learning process. Problem-based strategies must not only be utilised for enhancing learning, but also for promoting a sense of being in control of a situation (individual empowerment), as revealed in this research's findings.

### 5.4.3    Inclusion of a health and well-being module in the curriculum

It will be significant to include a health and well-being module in the nursing curricula to target health behavioural interventions, which include mental health issues such as stress management, coping strategies, and healthy lifestyle practices. Previous findings of a study regarding the evaluation of the effectiveness of such a dedicated health and well-being programme show a significant increase in the psychological well-being amongst nursing students (McSharry & Timmins, 2016:26). The caring project initiative started this year at Stellenbosch University and the University of Cape Town intends to promote the emotional well-being of students by monitoring them for psychological problems such as stress, depression and anxiety. This will also be beneficial to students at other universities (Die Burger, 2017:10). Only then can nursing students model behaviours required of patients in their care.

### 5.4.4    Peer support

Peer support was positively experienced by the students and can be reinforced through induction as well as teaching and learning activities. However, peer support groups should be structured to be effective and leaders should be identified.

### 5.4.5    Future research

The following areas for future research are proposed:

- Investigate the role that different personality traits play in stress and coping
- Explore nursing students' experiences regarding the use of problem-based learning as a capacity building teaching and learning strategy
- Identify the association between individual stressors and coping strategies
- Investigate why and in what circumstances students use combined coping strategies
- Explore the role that emotional intelligence plays in stress and coping
- Investigate cultural transformation as a coping strategy
- Investigate the difference between the stress and coping strategies of female versus male undergraduate nursing students (qualitative method)
- Explore nursing students' experiences of negative and positive social support

## 5.5    DISSEMINATION

The findings of this research will be available to all educational authorities and, in addition, it will be published at Stellenbosch University in the form of a thesis that will be available in their libraries as hard copies and electronically on their website. The researcher proposes to publish an article on stress and coping in collaboration with the Dr Chris Gibbons. Furthermore, as a committee member of the NEA, the researcher will present her research at conferences.

## 5.6    SUMMARY AND CONCLUSION

The cross-sectional descriptive study identified the stressors and coping strategies used by BTech undergraduate nursing students at a higher education institution in the Western Cape. The results showed that students experienced stress more as an uplifting experience than as a distress. However, the fact that they experience distress in certain areas should not be ignored, because distress contributes more to burnout than eustress. The findings indicated that students face a series of socio-economic difficulties, such as financial and personal problems. Changes regarding students' financial services, in particular financial aid packages, remain a concern and need to be addressed.

It is necessary to develop a climate of inclusion and develop a support programme to address students' needs. Overall, the researcher answered the research question. Furthermore, the researcher accepted the hypothesis.

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**ANNEXURE A: PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM**


TITLE OF THE RESEARCH PROJECT:
**STRESSORS AND COPING STRATEGIES AMONG BACCALAUREUS TECHNOLOGIAE UNDERGRADUATE NURSING STUDENTS AT A WESTERN CAPE HIGHER EDUCATION INSTITUTION.**

**PRINCIPAL INVESTIGATOR:**
Freda Marina Rossouw

**ADDRESS:**
19 Koring Street
Onze Molen
Durbanville
7550

**CONTACT NUMBER:**
078 019 3773 (Cell phone)

You are invited to take part in a research study on stressors and coping strategies. Please take your time to read the information carefully, which will explain the process in detail. Please ask the fieldworker about any part of this study you do not fully understand. It is important that you are satisfied and clearly understand what this research entails.

Your anonymity will be guaranteed. No name or student number will be requested. Your participation is **entirely voluntary** and you may withdraw at **any time**. Please feel free to ask questions during the process. There will not be any penalties if you do not take part in the research.

**Does this study have ethical approval?**
Ethical approval has been obtained from the Health Research Ethics Committee of Stellenbosch University, Department of Health and the Interim Research Ethics Committee from WCCN.
**The study will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki (Good clinical practice guidelines) and the Medical Research Council (MRC) Ethical Guidelines for Research.**

What is this research study all about?
The study will **only** be conducted at the Western Cape College of Nursing (Athlone Campus).

**The aim of the study** is to identify stressors (eustress / positive, distress / negative) and coping strategies as experienced by BTech undergraduate nursing students.

**The sample population:** The first, second, third and fourth year BTech undergraduate nursing students will be recruited to participate voluntarily. It is your choice not to participate and the researcher will respect your request. If you refuse to participate, it will not affect your results or programme. Students will be diverse in terms of gender, language, age, culture, ethnicity and marital status.

**Why are you being identify as potential participants?**
You are an undergraduate nursing student on the BTech program and may struggle with the demands of a higher education environment.

**What will your responsibilities be?**

Participants will be asked to complete **three questionnaires.**

The **first** part of the questionnaire (Section A) includes the **demographic data** (gender, age, year of study, course, marital status and language).

The **second** questionnaire (Section B) includes the **sources of stress** and will identify potential sources of stress as experienced by nursing students. Two open ended questions regarding student's personal and financial circumstances (positive or negative) will be asked in this question.

The **third** questionnaire (Section C) will identify the **coping strategies** used by nursing students.

**How long will it take to complete the questionnaire?**
Both questionnaires will take approximately 60 minutes (one hour) in total to complete.

**Will you benefit from taking part in this research?**
Students may indirectly benefit from the opportunity to express their feelings and in the processes alleviate some stress. Nursing education may benefit because the results of the study will help nurse educators to identify and address key issues. The results of the study may improve the curriculum based on recommendations regarding stress management and effective ways of managing and coping better with stress. Nursing students at risk can therefore be identified at an early stage and equipped with the necessary skills to enable them to complete their studies successfully.

**Are there in risks involved in your taking part in this research?**
There are no risks related to the research study. If respondents perceive any stress or express a need for help, a counsellor will be made available.

**Where can I go for help?**
You can phone the student counselling at CPUT for information or advice concerning stress, anxiety or regarding your coping strategies.

**Protection of the respondents:**
Anonymity will be ensured and participants cannot be linked to their responses in the thesis. The researcher will not share any information with others except with the permission of the participant. Participants may share information to the degree they wish and they may choose to share information with others.
One trained fieldworker will be in the venue and once the questionnaires are completed the researcher will collect the questionnaires in a sealed box. The box will

be kept in a secure place. All the research data will be entered into the researcher's computer and the password will be known only to her.

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. There will be no costs involved for you, if you do take part.**

Is there anything else that you should know or do?
**You will receive a copy of the participant information for your own records.**

Declaration by participant

By                                signing                                below,                                I
…………….………………………………………………………………. agree to take part in a research study entitled (Stressors and coping strategies among Baccalaureus Technologiae undergraduate nursing students at a Western Cape higher education institution).

I declare that:
- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.

- I have had a chance to ask questions and all my questions have been adequately answered.

- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part in any way.

- I may choose to stop participating in the study at any time and will not be penalised or victimised in any way.


Signed   at   (*place*) ......................….......………………………….……… on (*date*) …………..………..……..…….. 2017


**...........................................................**
.................................................................….............................................................……...
**….....…**
**Signature of participant**                          **Signature of witness**


Declaration by

I                                                                          (*name*)
……………….…………………………………………………………………………………
……………….………… declare that:

- I   explained   the   information   in   this   document   to …………………………………………………………………..

- I encouraged him/her to ask questions and took adequate time to answer them.

- I am satisfied that he/she adequately understands all aspects of the research, as discussed above.

- I did/did not use an interpreter. (*If an interpreter is used then the interpreter must sign the*
 *declaration below.*

Signed at (*place*) ...............….........…………… on (*date*)………..…….. 2017

......................................................…...................................................................
**Signature of investigator**                          **Signature of witness**

**Declaration by interpreter**

I *(name)* ………………………………….……… declare that:

- I assisted the investigator (*name*) ………………………………………… to explain the information in this
    document to (*name of participant*) …………...…………………………….. using
    the language medium of Afrikaans/Xhosa.

- We encouraged him/her to ask questions and took adequate time to answer them.

- I conveyed a factually correct version of what was related to me.

- I am satisfied that the participant fully understands the content of this informed consent
    document and has had all his/her question satisfactorily answered.

Signed   at   (*place*)   ...................…......……………………………………   on   (*date*)   …………..……………...…….. 2017

....................................................…..……...............................................................
**Signature of interpreter**                          **Signature of witness**

**ANNEXURE B: DATA COLLECTION INSTRUMENT: QUESTIONNAIRE**


Title of study**:**
**STRESSORS AND COPING STRATEGIES AMONG BACCALAUREUS TECHNOLOGIAE UNDERGRADUATE NURSING STUDENTS AT A WESTERN CAPE HIGHER EDUCATION INSTITUTION**

**Dear Participant**
This questionnaire will determine the stressors and coping strategies among undergraduate nursing students doing the Bachelor of Technology degree at a Western Cape higher education institution.

All information will be treated as confidential and the researcher undertakes not to reveal any individual information that appears in this questionnaire.

You will require approximately **60 minutes** completing this 9 paged questionnaire. Read the questions and mark you response off with a **cross (X)** in the box provided.

**SECTION A: DEMOGRAPHIC DATA**
Indicate your answer by placing a cross (X) in the box next to the appropriate answer.

1. What is your gender?

| | |
|---|---|
| 1.1. Male | |
| 1.2. Female | |

2. What is your home language?

| | |
|---|---|
| 2.1.English | |
| 2.2. Afrikaans | |
| 2.3. Xhosa | |
| 2.4. Other | |

3. What is your age?

| | |
|---|---|
| 3.1. | |

4. What is your year of study?

| | |
|---|---|
| 4.1. First year | |
| 4.2. Second year | |
| 4.3. Third year | |
| 4.4. Fourth year | |

5. What is your course?

| | |
|---|---|
| 5.1. BTech Nursing / Extended Curriculum Programme (ECP) | |
| 5.2. BTech Nursing / Mainstream | |

6. What is your marital status?

| | |
|---|---|
| 6.1. Married | |
| 6.2. Divorced | |
| 6.3. Single( never married) | |
| 6.4 Other (eg. widow) | |

**SECTION B: QUESTIONNAIRE ON STRESSORS**

**THE INDEX OF SOURCES OF STRESS IN NURSING STUDENTS**
**(relates to general experiences of sources of stress)**

**1. CLARIFICATION**

**1.1. What is stress?**

Stress is any demand that leads to a physiological, for example, headaches, and fast pulse rate or psychological, for example, anxiety or depression as a response. Some experiences lead to distress, for example, the difficulties you might have had in dealing with a colleague. We call these sources of stress **'HASSLES'.**

**2. INSTRUCTION**

When rating the item as a <u>hassle</u>, **0 represents no hassle**, **5 represents a big hassle, thus a significant source of distress.** In making your rating for a **'HASSLE'**, use the following scale and mark your response off with a **cross (X)** in the box provided.

**For example:**

| Hassle | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| | represents no hassle | Not at all (Never a hassle) | A little bit (Rarely a hassle) | A moderate amount (Occasionally a hassle) | A considerable amount (often a hassle) | a Big hassle |

**3. CLARIFICATION**

**3.1. What is positive stress?**

Some of the demands you have experienced while you have been a student may have led to a level of stress that actually improves your performance, increases your satisfaction, and helps you achieve your goals, such as an experience that helps you master clinical skills. We call these **'UPLIFTING'** experiences (positive stress).

**4. INSTRUCTIONS**

When rating the item as <u>uplifting factor</u>, **0 indicates that the item represents no source of satisfaction or influence that helps you achieve your goals, 5 represents an influence that really helps you to achieve your goals and gives you a strong sense of satisfaction.** In making your rating for a **UPLIFTING' factor**, use the following scale and mark your response off with a **cross (X)** in the box provided.

**Scale of options:**

| Uplifting | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| | represents no uplifting | Not at all (Never uplifting) | A little bit (Rarely uplifting) | A moderate amount (Occasionally uplifting) | A considerable amount (often uplifting) | A Great uplifting |

**5. How to rate each item as a 'HASSLE' and at the same time as an 'UPLIFTING' experience.**

**PLEASE NOTE THAT YOU WILL BE SHOWN A SERIES OF ITEMS. I WOULD LIKE YOU TO RATE EACH ITEM TWICE – ONCE AS A HASSLE AND ONCE AS AN UPLIFTMENT.**

The example below would indicate that the person believes that placement experience provides him/her with a moderate amount of distress (hassle=3) but also provides a strong sense of satisfaction and achievement (uplift=5)

| Hassle 0-5 | | | | | | Item | Uplifting 0-5 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 1. My placement experience | 0 | 1 | 2 | 3 | 4 | 5 |
| | | | X | | | | | | | | | X |

**QUESTIONNAIRE ON SOURCES OF STRESS.**

| Hassle 0-5 | | | | | | Item | Uplifting 0-5 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 1. The quality of lectures. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 2. The volume of information we are expected to grasp during a lecture. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 3. The clinical examples and additional information, beyond the PowerPoint presentation offered by lecturers. | 0 | 1 | 2 | 3 | 4 | 5 |

| 0 | 1 | 2 | 3 | 4 | 5 | Item | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|------|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 4. Lecturers who use their authority to retain order in class. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 5. Timing and constructive feedback of my formative assessments (test). | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 6. Timing and constructive feedback of my summative assessments (exams). | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 7. Developing the ability to critically analyse and evaluate questions. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 8. Learning by preparing presentations and presenting in class. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 9. Lecturer's response to student presentation in class. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 10. Learning by listening to others presenting in class. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 11. The number of presentations students give in class. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 12. The behaviour of other students in class. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 13. Question and answer sessions during lectures, discussions in class and ward rounds. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 14. The practical value of learning theoretical models / concepts during lectures (example: Maslow's hierarchy of needs). | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 15. The time given to lectures compared to self-study, group work and presentations by students. | 0 | 1 | 2 | 3 | 4 | 5 |

| Hassle 0-5 | | | | | | Item | Uplifting 0-5 | | | | | |
|---|---|---|---|---|---|------|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 16. How much I am valued by lecturers. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 17. The learning I engage in outside class, for example a visit to other institutions | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 18. The extent to which the course helps me regarding the problem solving and decision-making process when experiencing academic and personal problems. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 19. The pace and intensity of the course | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 20. The suitability of the BTech course to prepare me to be a registered nurse. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 21. My experience of writing a formative assessment (test). | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 22. My experience of writing a summative assessment (examination). | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 23. My experience of written assignments. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 24. The level of support offered by my lecturers. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 25. The level of support offered by my family and friends. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 26. The support of other students on this course. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 27. My experience with clinical educators (mentors). | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 28. Guidance and practice in preparation for my practical assessments. | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 29. My clinical practice experience (Hospitals, clinics etc). | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 30. How clinical skills are practised in the hospital compare to what we learn in the class and by our | 0 | 1 | 2 | 3 | 4 | 5 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | clinical educators (mentors) | | | | | | |
| 0 | 1 | 2 | 3 | 4 | 5 | 31. My experience of patient care that I have to provide (holistically). | 0 | 1 | 2 | 3 | 4 | 5 |
| 0 | 1 | 2 | 3 | 4 | 5 | 32. My relationship with my patients. | 0 | 1 | 2 | 3 | 4 | 5 |

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**Describe your personal circumstances that are a distress (hassle) for you; therefore interfere with your academic performance.**

…………………………………………………………………………………………………

…………………………………………………………………………………………………

**Describe your personal circumstances that are a positive (uplifting) influencing factor for you. It therefore motivates you and improves your academic performance.**

…………………………………………………………………………………………………

…………………………………………………………………………………………..………

**Describe your financial circumstances that are a distress (hassle) experience for you; therefore interfere with your academic performance.**

……………………………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………………………….

**Describe your financial circumstances that are a positive (uplifting) experience for you. It therefore motivates and improves your academic performance.**

…………………………………………………………………………………………………

…………………………………………………………………………………………………

Thank you for completing the questionnaire.

## SECTION C: QUESTIONNAIRE ON COPING STRATEGIES

**INSTRUCTIONS: PLEASE NOTE YOU ARE NOW ASKED TO RECOGNISE YOUR COPING STRATEGY.**

Please answer all the questions.

**To what extent do you usually use each of the following strategies to cope with stress?**
**Indicate your rating, use the following scale:**

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| **Not At All (Never)** | **A Little Bit (Rarely)** | **A Moderate Amount (Occasionally)** | **A Considerable Amount (Often)** | **A Great Deal (Always)** |

**Please mark with a cross (X) the appropriate number for each coping strategy in the list below**
**GOD\* - For the purpose of this study GOD refers to any personal source of spiritual power.**

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | Rely on others to do what I cannot do myself | 1 | 2 | 3 | 4 | 5 |
| 2 | Do something about the situation | 1 | 2 | 3 | 4 | 5 |
| 3 | Wish that I could undo the past | 1 | 2 | 3 | 4 | 5 |
| 4 | Express my feelings and thoughts | 1 | 2 | 3 | 4 | 5 |
| 5 | Confront the problem by taking the appropriate actions | 1 | 2 | 3 | 4 | 5 |
| 6 | Believe that I can communicate with God\* | 1 | 2 | 3 | 4 | 5 |
| 7 | Do what is necessary to maintain a personal relationship with God\* | 1 | 2 | 3 | 4 | 5 |
| 8 | Run away from the problem or situation | 1 | 2 | 3 | 4 | 5 |
| 9 | Do what is necessary to fulfil the requirements of the situation | 1 | 2 | 3 | 4 | 5 |
| 10 | Accept what has happened because eventually things will work out | 1 | 2 | 3 | 4 | 5 |
| 11 | Break down the problem into smaller steps and work on one at a time | 1 | 2 | 3 | 4 | 5 |
| 12 | Learn to live with the problem, because nothing much can be done about it | 1 | 2 | 3 | 4 | 5 |
| 13 | Confront and understand my own feelings | 1 | 2 | 3 | 4 | 5 |

| 14 | Accept / tolerate life as it is and make the best of it | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 15 | Learn to accept the negative realities of life | 1 | 2 | 3 | 4 | 5 |
| 16 | Suppress or avoid facing my own emotions | 1 | 2 | 3 | 4 | 5 |
| 17 | Air my complaints and frustrations | 1 | 2 | 3 | 4 | 5 |
| 18 | Feel guilty for what has happened | 1 | 2 | 3 | 4 | 5 |
| 19 | Practice controlled breathing techniques | 1 | 2 | 3 | 4 | 5 |
| 20 | Change my negative attitude toward this problem into a positive one | 1 | 2 | 3 | 4 | 5 |
| 21 | Change my pace (slower or faster) of work to suit the situation | 1 | 2 | 3 | 4 | 5 |
| 22 | Rely on people who have successfully coped with the problem | 1 | 2 | 3 | 4 | 5 |
| 23 | Take the problem into my own hands to face challenges rather than avoid them | 1 | 2 | 3 | 4 | 5 |
| 24 | Look at unavoidable life events as part of my lot in life | 1 | 2 | 3 | 4 | 5 |
| 25 | Engage in mental exercise (such as to form mental pictures of things /events) to reduce tension | 1 | 2 | 3 | 4 | 5 |
| 26 | Share my feelings with a confidant | 1 | 2 | 3 | 4 | 5 |
| 27 | Try to reduce my anxious thoughts | 1 | 2 | 3 | 4 | 5 |
| 28 | Seek help and direction from God* | 1 | 2 | 3 | 4 | 5 |
| 29 | Actively seek out information on my own | 1 | 2 | 3 | 4 | 5 |
| 30 | Wish that I were a different person | 1 | 2 | 3 | 4 | 5 |
| 31 | Feel ashamed of my inadequacies | 1 | 2 | 3 | 4 | 5 |
| 32 | Look at unavoidable life events as part of my lot in life | 1 | 2 | 3 | 4 | 5 |
| 33 | Put off doing something about the problem | 1 | 2 | 3 | 4 | 5 |
| 34 | Accept the present situation because no matter how bad things are they could always be worse | 1 | 2 | 3 | 4 | 5 |
| 35 | Wish that a miracle or something fantastic would happen | 1 | 2 | 3 | 4 | 5 |
| 36 | Believe that God* will answer prayers | 1 | 2 | 3 | 4 | 5 |
| 37 | Believe that there must be a purpose in the suffering I experience | 1 | 2 | 3 | 4 | 5 |
| 38 | Make a plan of action and follow it | 1 | 2 | 3 | 4 | 5 |
| 39 | Look to others for moral support | 1 | 2 | 3 | 4 | 5 |
| 40 | Ignore the problem and pretend that it doesn't exist | 1 | 2 | 3 | 4 | 5 |
| 41 | Avoid thinking about the problem or things that are upsetting me | 1 | 2 | 3 | 4 | 5 |
| 42 | Wish that the situation were different | 1 | 2 | 3 | 4 | 5 |
| 43 | Believe that God* watches over me | 1 | 2 | 3 | 4 | 5 |
| 44 | Mentally transform the situation into something less threatening | 1 | 2 | 3 | 4 | 5 |
| 45 | Rely on available connections to solve the problem | 1 | 2 | 3 | 4 | 5 |

| 46 | Follow religious principles | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 47 | Try not to focus on likely negative outcomes | 1 | 2 | 3 | 4 | 5 |
| 48 | Practice muscle relaxation techniques | 1 | 2 | 3 | 4 | 5 |
| 49 | Change my attitude in view of this problem | 1 | 2 | 3 | 4 | 5 |
| 50 | Feel sorry for what I have done | 1 | 2 | 3 | 4 | 5 |
| 51 | Be determined and persistent in attacking the problem | 1 | 2 | 3 | 4 | 5 |
| 52 | Seek emotional support from others | 1 | 2 | 3 | 4 | 5 |
| 53 | Receive practical help from friends | 1 | 2 | 3 | 4 | 5 |
| 54 | Restructure my actions in light of the problem | 1 | 2 | 3 | 4 | 5 |
| 55 | Pray to God* | 1 | 2 | 3 | 4 | 5 |
| 56 | Depend on the experts and follow their advice | 1 | 2 | 3 | 4 | 5 |
| 57 | Look at the humorous side of this problem | 1 | 2 | 3 | 4 | 5 |
| 58 | Try to look at the problem from a new perspective | 1 | 2 | 3 | 4 | 5 |
| 59 | Rearrange my activities to accommodate the situation | 1 | 2 | 3 | 4 | 5 |
| 60 | Believe that there is meaning and purpose to the things that happen to me | 1 | 2 | 3 | 4 | 5 |
| 61 | Release my suppressed emotions | 1 | 2 | 3 | 4 | 5 |
| 62 | Double my effort to change the situation | 1 | 2 | 3 | 4 | 5 |
| 63 | Don't worry about the past or the future, accept each day as it comes | 1 | 2 | 3 | 4 | 5 |
| 64 | Develop better time management skills so that I will be more efficient in the future | 1 | 2 | 3 | 4 | 5 |
| 65 | Blame myself for what has happened | 1 | 2 | 3 | 4 | 5 |
| 66 | Believe in an almighty God* | 1 | 2 | 3 | 4 | 5 |
| 67 | Believe that valuable lessons can be learned from undesirable experiences | 1 | 2 | 3 | 4 | 5 |
| 68 | Depend on friends for emotional / moral support | 1 | 2 | 3 | 4 | 5 |
| 69 | Believe that God* will be the final judge | 1 | 2 | 3 | 4 | 5 |
| 70 | Obtain meaning from my past | 1 | 2 | 3 | 4 | 5 |
| 71 | Remind myself that worrying will not accomplish anything | 1 | 2 | 3 | 4 | 5 |
| 72 | Practice meditation techniques to reduce tension | 1 | 2 | 3 | 4 | 5 |
| 73 | Use drugs on a regular basis to escape from my problems | 1 | 2 | 3 | 4 | 5 |
| 74 | Use alcohol on a regular basis to escape from my problems | 1 | 2 | 3 | 4 | 5 |
| 75 | Depend on opinions of people who have experienced similar problems | 1 | 2 | 3 | 4 | 5 |

Coping Schemas Inventory-Revised (© P.T.P. Wong, G.T. Reker, and E.J. Peacock, 1993)

Thank you for your participation.

Principal investigator: Marina Rossouw
Email: marinarossouw6601@gmail.com
Cell: 078 019 3773

Supervisor: Dr J Hugo
Email: jogo@tiscali.co.za
Tel: 021 919 2739
Cell: 083 234 7280

## ANNEXURE C: ETHICAL APPROVAL STELLENBOSCH UNIVERSITY

UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
jou kennisvennoot · your knowledge partner

**Ethics Letter**

23-Mar-2017
Rossouw, Freda FM

**Ethics Reference #:** S15/10/256
**Clinical Trial Reference #:**
**Title:** Academic stressors and coping strategies among undergraduate nursing students at a Western Cape higher education institution.

Dear Mrs Freda Rossouw

Your request for extension/annual renewal of ethics approval dated 06 March 2017 refers.

The Health Research Ethics Committee reviewed and approved the annual progress report you submitted through an expedited review process.

The approval of the research project is extended for a further year.

Approval date: 23 March 2017

Expiry date: 22 March 2018

**Where to submit any documentation**
Kindly submit **ONE HARD COPY** to Elvira Rohland, RDSD, Room 5007, Teaching Building, and **ONE ELECTRONIC COPY** to ethics@sun.ac.za

Please remember to use your **protocol number** (S15/10/256) on any documents or correspondence with the HREC concerning your research protocol.

Federal Wide Assurance Number: 00001372
Institutional Review Board (IRB) Number: IRB0005240 for HREC1
Institutional Review Board (IRB) Number: IRB0005239 for HREC2

The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Good Clinical Pracices Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Sincerely,
Francis Masiye
REC Coordinator
Health Research Ethics Committee 2

112

## ANNEXURE D: PERMISSION OBTAINED FROM DEPARTMENT OF HEALTH (NATIONAL HEALTH RESEARCH)

**Western Cape Government**

Health

REFERENCE: WC_2016RP42_963
ENQUIRIES: Ms Charlene Roderick

**Cape Peninsula University of Technology**

**Corner of Keizersgracht and Tennant Street**

**Zonnebloem**

**Cape Town**

**8000**

For attention: Mrs Freda Rossouw

**Re: Stressors and coping strategies among Bacculaureus Technologiae undergraduate nursing students at a Western Cape higher education institution.**

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.

Please contact following people to assist you with any further enquiries in accessing the following sites:

**Western Cape Nursing College**         **Melanie Donald**         **021 377483 3802**

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.

114

2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).

3. In the event where the research project goes beyond the *estimated completion* date which was submitted, researchers are expected to complete and submit a progress report (**Annexure 8**) to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).

4. The reference number above should be quoted in all future correspondence.

Yours sincerely

AJ HAWKRIDGE.

**DR A HAWKRIDGE**
**DIRECTOR: HEALTH IMPACT ASSESSMENT**
**DATE:**    27 / 7 / 2016.

**ANNEXURE E: PERMISSION OBTAINED FROM THE CAPE PENINSULA UNIVERSITY OF TECHNOLOGY HEALTH AND WELLNESS SCIENCE RESEARCH ETHICS COMMITTEE**

Cape Peninsula
University of Technology

**HEALTH AND WELLNESS SCIENCES RESEARCH ETHICS COMMITTEE (HW-REC)**
Registration Number NHREC: REC- 230408-014

P.O. Box 1906 • Bellville 7535 South Africa
Symphony Road Bellville 7535
Tel: +27 21 959 6917
Email: sethn@cput.ac.za

13 February 2017
*REC Approval Reference No:*
*CPUT/HW-REC 2017/H1*

Dear Ms Freda Marina Rossouw

**Re:  APPLICATION TO THE HW-REC FOR ETHICS CLEARANCE**

Approval was granted by the Health and Wellness Sciences-REC on 15 September 2016 to Ms Rossouw for ethical clearance. This approval is for research activities related to research for Ms Rossouw at the University of Stellenbosch.

**TITLE: Stressors and coping strategies among undergraduate nursing students at a Western Cape Higher Education Institution**

**Supervisor:  Dr J Hugo and Ms C Klopper**

**Comment:**

**Approval will not extend beyond 14 February 2018.** An extension should be applied for 6 weeks before this expiry date should data collection and use/analysis of data, information and/or samples for this study continue beyond this date.

The investigator(s) should understand the ethical conditions under which they are authorized to carry out this study and they should be compliant to these conditions. It is required that the investigator(s) complete an **annual progress report** that should be submitted to the HWS-REC in December of that particular year, for the HWS-REC to be kept informed of the progress and of any problems you may have encountered.

**Kind Regards**

*Mr. Navindhra Naidoo*
**Chairperson – Research Ethics Committee**
**Faculty of Health and Wellness Sciences**

## ANNEXURE F: PERMISSION OBTAINED FROM WESTERN CAPE HIGHER EDUCATION INSTITUTION

**Western Cape Government**
Health

DIRECTORATE: WESTERN CAPE COLLEGE OF NURSING
Betty.Rafferty@westerncape.gov.za
Enquiry: Mrs Rafferty
Tel: (021) 684 1211

**Mrs M Rossouw**
**Netcare Hospital Management (Pty) Ltd Trading as Netcare Training Academy S1587 known as Netcare**
**Education**
**2 Old Paarl Road,**
**4th floor, Sunbel Building,**
**Bellville,**
**South Africa**
**7530**

**Dear Mrs Rossouw**

STRESSORS AND COPING STATEGIES AMONG UNDERGRADUATE NURSING STUDENTS AT A WESTERN CAPE
HIGHER EDUCATION INSTITUTION

Your request to do the data collection at the Metro West Campus was discussed with the relevant Heads of
Departments. Your data collection process was perused and your requests are acceded to.

Permission is herewith granted for you to do the research at Metro West Campus in Athlone

Kindly contact Mrs L Du Preez at telephone number 021 6841233 for information regarding the students
contact details.

We wish you well with your research

**Mrs B Rafferty**
**WCCN Metro West Campus**
**Surwell**
**Klipfontein Road**
**Athlone**
**Date: 17 May 2017**

Klipfontein Road, Athlone 7764
Tel: +27 21 684 1202    Fax: +27 21 638 6988

## ANNEXURE G: PERMISSION FROM AUTHORS (DR PAUL WONG & DR C GIBBONS)

M Gmail                                    Postnet Durbanville <postnet.email@gmail.com>

### Fwd: Questionnaire
1 message

**marina rossouw** <marinarossouw6601@gmail.com>                    Sat, Dec 9, 2017 at 9:21 AM
To: postnet.email@gmail.com

---------- Forwarded message ----------
From: **Paul TP Wong** <dr.paul.wong@gmail.com>
Date: Wed, Jan 14, 2015 at 8:13 PM
Subject: Re: Questionnaire
To: marina rossouw <marinarossouw6601@gmail.com>

Hi Marina,

You might be interested in using subscales that are relevant to your study from my Revised Coping Schemas Inventory (CSI-R): http://meaning.ca/conference/wp-content/uploads/2012/03/Coping-Schemas-Inventory-Revised.pdf

Here is the relevant article:

Wong, P. T. P., Reker, G. T. & Peacock, E. (2006). The resource-congruence model of coping and the development of the Coping Schema Inventory. In P. T. P. Wong, & L. C. J., Wong (Eds.), *Handbook of Multicultural perspectives on stress and coping* (pp. 223-283). New York, NY: Springer.

Kind regards,

Paul T. P. Wong

www.drpaulwong.com

On Wed, Jan 14, 2015 at 6:46 AM, marina rossouw <marinarossouw6601@gmail.com> wrote:
Dear Dr. Wong
I am a Master's student at the University of Stellenbosch (Faculty of Medicine and Health Sciences Division of Nursing) in South Africa. My study is entitled "Stress and coping strategies among undergraduate nursing students at a higher education institution in the Western Cape". I am a lecturer at the Western Cape College of Nursing in South Africa.

Do you have a questionnaire on coping strategies that I may use for my study? In my literature review I have you as one of my references and will also give credit to you.
My study is a quantitative one.

Thank you.
Regards
Marina Rossouw

Please consider whether it is necessary to print this email

**From:** marina rossouw [mailto:marinarossouw6601@gmail.com]
**Sent:** Saturday, February 11, 2017 2:44 PM
**To:** Marina Rossouw
**Subject:** Fwd: Questionnaire

**This message originated from outside your organization**

---------- Forwarded message ----------
From: **Chris Gibbons** <c.gibbons@qub.ac.uk>
Date: Sun, Oct 12, 2014 at 5:50 PM
Subject: Re: Questionnaire
To: marina rossouw <marinarossouw6601@gmail.com>

Hi Marina,

You can find some of my papers and the questionnaire you are referring to at the link below. Feel free to use and all
the best with your research,

Chris

Dr Chris Gibbons
Lecturer in psychology (Education),
School of Psychology,
Queen's University Belfast,
Malone Road,
Belfast.
BT7 1NN
02890975654
Chair, Association for Psychology Teachers
For a selection of my recent papers please go to:
http://www.associationforpsychologyteachers.com/research.html

QUB Student Union Education Award - Personal Tutor of the year

> On 12 Oct 2014, at 15:39, marina rossouw <marinarossouw6601@gmail.com> wrote:
>
> Dear Dr. Gibbons
> I am a master's student at the University of Stellenbosch (Faculty of Medicine and Health Sciences Division of
Nursing) in South Africa.My study is entitled "Stress and coping among undergraduate nursing students at a higher
education institution in the Western Cape". I am a lecturer at the Western Cape College of Nursing in South Africa.
One of the biggest nursing colleges in the Western Cape.
>
> Your article on "Stress, coping and satisfaction in nursing students" (2010) as published in the Journal of Advanced
Nursing is part of my literature review.I request your permission for the use of your questionnaire for my research
study.My study is also a quantitative one.

**ANNEXURE H: RECRUITMENT MATERIAL (FACEBOOK AND POSTER)**

**(Facebook)**

Dear Students

You are invited to take part in a research study to help us understand your stressors and coping strategies. Taking part in the study will involve completing three (3) anonymous questionnaires.

Details are on the poster below.

Thank You.

Kind regards.

Mrs Marina Rossouw

Mobile: 0780193773

**(POSTER )**



**FACULTY OF HEALTH AND WELLNESS SCIENCES**

**We are looking for volunteers (BTech first, second, third and fouth year nursing students) to take part in a study of *STRESS AND COPING.***



**Photo: Chicagonow.com**

**As a participant in this study, you would be asked to complete (3) three anonymous questionnaires which will approximately take 60 minutes.**

**For more information about this study please contact: Mrs. Marina Rossouw.**

**E-mail: marinarossouw6601@gmail.com**

**ANNEXURE I: DECLARATION BY LANGUAGE EDITOR**

## Mary A. Cohen

*Language Practitioner*

### *Editing and proof reading for academics*

4 Swan Lane
Bergvliet
7945

Phone 021 7130397

swanlake@mweb.co.za

6 December 2017

Mrs F.M. Rossouw

Cell no. 078 019 3773

E-mail address: marinarossouw6601@gmail.com

The above-named student' thesis titled *"STRESSORS AND COPING STRATEGIES AMONG BACCALAUREUS TECHNOLOGIAE UNDERGRADUATE NURSING STUDENTS AT A WESTERN CAPE HIGHER EDUCATION INSTITUTION"* was edited for grammar, spelling, syntax and referencing.

## ANNEXURE J: DECLARATION BY TECHNICAL FORMATTER



To whom it may concern

This letter serves as confirmation that I, Lize Vorster, performed the technical formatting of Marina Rossouw's thesis.

Technical formatting entails complying with the Stellenbosch University's technical requirements for theses and dissertations, as presented in the Calendar Part 1 – General or where relevant, the requirements of the department.

Yours sincerely

Lize Vorster
Language Practitioner