

Predictors of burnout and engagement of university students

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Yours sincerely

Mari-Leigh Pienaar

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ABSTRACT

Title: Predictors of burnout and engagement of university students.

Key terms: Student burnout, student engagement, core self-evaluation traits, self-esteem, self-efficacy, career decision-making difficulty, social support, higher education institution, university students

Student burnout and engagement have become more evident as a problem among students in higher education institutions. It is therefore very important to determine the various predictors that could cause students to experience burnout and engagement. The aim of this study is to establish whether core self-evaluation traits, career decision-making difficulty and social support have an impact on burnout and engagement of students. A limited number of research has been done on student burnout and engagement in the higher education institutions and the causal predictors of these occurrences. Therefore this study contributes toward the need for obtaining more information about student burnout and engagement and its predictors. The results could assist universities to obtain more knowledge and a greater understanding of possible predictors of burnout and engagement among students in South Africa.

The objectives of the study were to: (1) conceptualise student burnout and engagement according to the literature; (2) determine whether core self-evaluation traits (self-esteem and self-efficacy) are significant predictors of student burnout and engagement; (3) determine whether career decision-making difficulties are significant predictors of student burnout and engagement; (4) determine whether social support is a significant predictor of student burnout and engagement; and (5) to make recommendations for future research.

A non-probability quota sample ($N = 782$) was used to investigate the predictors of burnout and engagement in a sample of university students. Student burnout and engagement were measured by a self-report questionnaire. The results of this study indicated that self-efficacy, inconsistent information due to internal conflict and parental support were significant predictors for all four dimensions (exhaustion, cynicism, vigour and dedication). Self-esteem was also a significant predictor for the two engagement dimensions. In addition, lack of information about the self, lack of information about the occupations and inconsistent

information due to external conflict predicted cynicism. Based on these results, this study can be an indication for students, parents and the higher education institutions on what the specific predictors are of student burnout and engagement.

Recommendations are made for practice as well as for future research.

OPSOMMING

Titel: Voorspellers van uitbranding en betrokkenheid van universiteitstudente

Sleuteltermes: Studente-uitbranding, studentebetrokkenheid, selfevalueringseienskappe, selfbeeld, selfdoeltreffendheid, loopbaan-besluitnemingsprobleme, sosiale ondersteuning, inrigting vir hoër onderwys, universiteitstudente

Studente-uitbranding en betrokkenheid het sonder twyfel 'n probleem geword onder studente in hoër onderwysinstellings. Dit is dus baie belangrik om die verskillende voorspellers vas te stel wat kan beïnvloed tot in watter mate studente uitbranding en betrokkenheid ervaar. Hierdie studie sal bepaal of die selfevalueringseienskappe, loopbaan besluitnemingsprobleme en sosiale ondersteuning 'n impak op die student se uitbranding en betrokkenheid het. Daar is beperkte navorsing gedoen op studente-uitbranding en -betrokkenheid in die instellings vir hoër onderwys. Die studie is dus 'n goeie bydrae tot die bepaling van voorspellers van studente-uitbranding en -betrokkenheid. Die resultate sal universiteite help met meer kennis en begrip van moontlike voorspellers van studente-uitbranding en -betrokkenheid in Suid-Afrika.

Die doelwitte van die studie was om: (1) studente-uitbranding en -betrokkenheid volgens die literatuur te konseptualiseer; (2) te bepaal of selfevalueringseienskappe (selfbeeld en selfdoeltreffendheid) 'n beduidende voorspeller van studente-uitbranding en -betrokkenheid is; (3) te bepaal of loopbaan-besluitnemingsprobleme 'n beduidende voorspeller van studente-uitbranding en -betrokkenheid is; (4) te bepaal of sosiale ondersteuning 'n beduidende voorspeller van studente-uitbranding en -betrokkenheid is; en (5) aanbevelings vir toekomstige navorsing te maak.

'n Nie-waarskynlikheid kwotastekproef ($N = 782$) is gebruik om die voorspellers van uitbranding en betrokkenheid in 'n steekproef onder universiteitstudente te bepaal. Die resultate van die studie dui daarop dat selfdoeltreffendheid, strydige inligting as gevolg van interne konflik, en ouer ondersteuning voorspellers vir al vier dimensies was. Selfbeeld was ook 'n belangrike voorspeller vir die twee betrokkenheidsdimensies. Verder word sinisme deur gebrek aan inligting oor die self, gebrek aan inligting oor beroepe en strydige inligting

deur eksterne konflik voorspel. Hierdie resultate kan 'n aanduiding vir studente, ouers en die instellings vir hoër onderwys wees oor wat die spesifieke voorspellers van uitbranding en betrokkenheid is.

Aanbevelings word gemaak vir die praktyk sowel as vir toekomstige navorsing.

CHAPTER 1

INTRODUCTION

This mini-dissertation focuses on student burnout and engagement, and possible predictors thereof. The terms ‘student burnout’ and ‘student engagement’ are conceptualised according to the literature and possible predictors are included which could influence students to experience burnout or engagement. The different predictors are core self-evaluation traits (self-esteem and self-efficacy), career decision-making difficulties and social support.

This chapter provides the problem statement and a discussion of the research objectives. The research methodology is explained and an overview of the chapters is given.

1.1 PROBLEM STATEMENT

Student burnout and student engagement seem to be a universal problem for higher education institutions (Jacobs & Dodd, 2003; Law 2010). Burnout, according to Noushad (2008), can be experienced by students, clients and patients. Student or academic-related burnout is seen as a serious academic issue which needs to be researched (Noushad, 2008). Many higher education institutions have become more aware of the problem of student burnout and the effect it has on students (Schaufeli, Martínez, Pinto, Salanova & Bakker, 2002a). According to Neumann, Finaly-Neumann and Reichel (1990) students’ future relationship with the university can be affected through student burnout. In addition, it can influence prospective students’ view of the university, the university’s attractiveness and the potential for future enrolment (Neumann et al., 1990). Law (2007) indicated that university administrators, business faculties and counsellors need to be equipped and informed with information on the possible causes or outcomes of burnout. However, little research has been done on academic burnout and stress (Noushad, 2008).

Maslach, Schaufeli and Leiter (2001) indicated three concepts that can describe burnout, namely exhaustion, cynicism and reduced professional efficacy. *Exhaustion* can be described as an element of stress which is found in burnout. It also refers to a person who has low levels of emotional and physical resources with feelings of tiredness or who is overextended (Maslach et al. 2001). The *cynicism* dimension indicates the interpersonal distancing element of burnout which refers to the negative response towards the particular work and not being cognitively and emotionally involved with work (Maslach, Leiter & Schaufeli, 2008). Maslach et al. (2008) describe *reduced efficacy* as the self-evaluation element of burnout; the individual can experience feelings of incompetence, and a lack of ability, skill and productivity in his or her work.

University students can also experience burnout (Jacobs & Dodd, 2003). According to McCarthy, Pretty and Catano (1990), burnout is relevant in the work environment but may exist in students as well. Law (2010) indicated that academic performance can be influenced negatively by students who experience exhaustion. McCarthy et al. (1990) also state that student burnout has a negative relationship with academic achievements, the main aspects being frustration, irritation, exhaustion and a detached or cynical view. According to Noushad (2008) and Law (2010), student activities such as attending classes, submitting assignments, working to deadlines and working long hours can be seen as work, although the students are not employed. University students who do not attend classes regularly obtain poor marks for their exams and assignments, and are inclined to drop out of higher education. These students are also likely to experience exhaustion (Law, 2010).

As a result of burnout, students lack the ability to perform and have a negative detached attitude towards their studies (Pienaar & Sieberhagen, 2005; Schaufeli et al., 2002a). Over the years different studies have indicated various reasons for student burnout. These reasons can be summarised as high levels of perceived workload or study demands (Jacobs & Dodd, 2003; Noushad, 2008) and low levels of effective coping (Gan, Shang & Zhang, 2007a). According to Yang and Farn (2005), students who have low self-efficacy and have a negative view of the learning environment and of the social support that is available are also inclined to experience burnout.

Student burnout, according to Maslach and Leiter (1997), is the direct opposite of student engagement. Student burnout is therefore a problem, while student engagement is a significant predictor for success and satisfaction (Pascarella & Terenzini, 2005). According to Gan, Yang, Zhou and Zhang (2007b), student engagement is a positive expansion of student burnout. Salanova, Schaufeli, Martínez and Bresó (2010) stated that students experience burnout if they have many obstacles in their way and only a few facilitators to assist or give help. If burnout is decreased by clearing the obstacles and by using the facilitators, their performance will improve, which can lead to student engagement (Salanova et al., 2010).

Student engagement is described as a persistent, determined, positive affective-motivational state of fulfilment or accomplishment (Maslach et al., 2008). Student engagement is seen as the accomplishment a student acquires with determination and can be described by three characteristics, namely vigour, dedication and absorption (Salanova et al., 2010). *Vigour* is explained as high levels of energy and mental resilience while working, and willingness to put in effort and persistence into one's work, even if this is difficult. *Dedication* refers to a sense of significance, enthusiasm, inspiration and pride in one's work, and a challenge to the individual. *Absorption* is characterised as being fully determined, focused and deeply engrossed in one's work, so that time goes by quickly and one struggles to detach oneself from work (Schaufeli, Salanova, González-Roma & Bakker, 2002b).

Little research has been done on student engagement in South Africa, although internationally the concept has increasingly appeared in the literature (Law, 2010). Salanova et al. (2010) indicated that student engagement leads directly to performance. In the university context, students who are more engaged will be better equipped to cope with their coursework (Law, 2007). Student engagement can also enhance student well-being (Gan et al., 2007a), lead students to success in obtaining a degree and improve the university's efficiency and effectiveness in general (Strydom, Kuh & Mentz, 2010). According to Kuh, Cruce, Shoup and Kinzie (2008), institutions' devotion in using effective educational practices can be seen in their student engagement, whereas students' time and energy can be seen as their devotion to their educational activities. If possible, the university should assist students by offering university-sponsored co-curricular activities that can help the students be more engaged in their studies

(Law, 2010). Zhao and Kuh (2004) are of the opinion that institutions influence student engagement through teaching practices and programme interventions. Kuh et al. (2008) also suggested that higher education institutions need to seek various ways to guide student energy towards efficient learning activities.

A few studies have shown that student engagement is related to high levels of academic performance (Schaufeli et al., 2002a) and high levels of harmonious and obsessive passion for studying (Stoeber, Childs, Hayward & Feast, 2011). Gan et al. (2007b) stated that lower levels of perceived stress will help enhance student engagement. Student engagement is also a significant predictor of satisfaction and success; consequently it will help students to succeed in their course of study (Strydom et al., 2010). Students who experience engagement are deeply involved in their studies and therefore feel energetic and connected (Salanova et al., 2010). Because of proactive coping and preventive coping, students will endure less stress and more student engagement (Gan et al., 2007b). Krause, Hartley, James and McInnes (2005) stated that student engagement occurs when students are more involved in their academic and social activities, have a sense of belonging towards their university and interact more with their peers in an educational way in their learning community. According to Salanova et al. (2010), students who are successful in obtaining their goals feel more motivated and engaged in what they do; this is traced back to positive feelings and a positive attitude towards their studies. Kuh et al. (2008) and Law (2007) also indicated that student engagement is positively related to the academic outcomes and persistence of students when they interact in educationally purposeful activities.

The core self-evaluation traits of students must be taken into consideration by lecturers or counsellors to identify student burnout and to design a programme to prevent it (Morgan & De Bruin, 2010). Two important core self-evaluation traits are self-esteem and self-efficacy. *Self-esteem* is defined as a favourable or unfavourable attitude towards the self (Rosenberg, 1965). According to Lee, Puig, Kim, Shin, Lee and Lee (2010), different patterns of academic burnout are associated in various ways with a student's self-esteem and academic grades. Students who have more perseverance and self-esteem tend to have higher grades. Low self-esteem, which can be related to student burnout, is regarded as one of the factors influencing students' success in graduating (Morgan & De Bruin, 2010).

Self-efficacy is described as an individual's belief about the abilities he or she has to organise or to execute (Bandura, 1977). Self-efficacy can affect an individual's goal setting, determination and ability to persevere in complicated situations. Perceived self-efficacy could also influence the individual's behaviour and his or her choice of activities (Bandura, 1977). If this perceived self-efficacy develops, the individual's effort will become more active. Lee et al. (2010) stated that distressed students have low levels of academic efficacy and high levels of cynicism, which could lead to student burnout. According to Bresó, Schaufeli and Salanova (2011), students who experience stress have higher burnout, lower self-efficacy and lower engagement than students who are generally healthy. According to Yang and Farn (2005) an increase in self-efficacy can reduce the level of student burnout. According to Lee et al. (2010), students who function well in higher education institutions will have low emotional exhaustion and cynicism and high academic efficacy. Higher self-efficacy will also lead to an increase in engagement among students, which enhances students' performance (Bresó et al., 2011).

According to Gordon and Meyer (2002), prospective university students often experience problems in making career decisions. Gati, Krausz and Osipow (1996) presented a model to describe the career difficulties experienced by individuals. They divided career decision-making difficulties into three categories: lack of readiness, lack of information and inconsistent information.

- *Lack of readiness* has three categories of difficulties that may take place before the career decision-making process: (1) lack of motivation to take part in the career decision-making process; (2) indecisiveness regarding various types of decisions; and (3) dysfunctional beliefs as well as an individual irrational expectation concerning the career decision-making process.
- *Lack of information* has four categories of difficulties: (1) lack of information about the process of making a decision; (2) lack of information of the self; (3) lack of information about the work and its environment; and (4) lack of information on the various ways to obtain information.
- *Inconsistent information* has three categories: (1) unreliable information; (2) internal conflicts (conflicts within the individual); and (3) external conflicts which involve the influences of others.

Students experience stress when they need to make changes in their career plans, although this is not unusual or unpredictable (Morgan & Ness, 2003). According to Reece (2011), lack of preparation to make a career decision causes students to endure stress when their graduation occurs and no help or assistance was offered. More stress occurs when students have to make this decision in a short period of time (Reece, 2011). High levels of stress can be seen as a sign of career exploration and career decision-making difficulty (Gati & Saka, 2001). Gati and Saka (2001) stated that the way students handle their career decisions now can be a sign of how they will handle decisions in their future occupations. This is important when taking the well-being of the student into consideration. It is therefore necessary to provide students with career counselling, guidance, development and help in making effective career decisions (Gati & Saka, 2001). Kuh et al. (2008) stated that academic underpreparedness for university can be seen as a risk factor for students; they need to be able to use their energy for educationally effective activities that could lead to student engagement and success. According to Maslach et al. (2001), burnout can occur if there is a mismatch or gap between the person and his or her career. Conversely, engagement can occur if a good fit is made between the person and his or her career. A good fit or match is therefore very important.

Social support can be seen as a resource (Alarcon, Edwards & Menke, 2011) and one of the most important factors influencing burnout (Yang, 2004). Social support can be defined as people who are available, caring and loving, and whom we can rely on (Sarason, Levine, Basham & Sarason, 1983). According to Alarcon et al. (2011), engagement is indirectly affected by social support through problem-solving coping. The higher the social support, the more options there are, which increases the individual's coping ability (Alarcon et al., 2011). According to Danielsen (2010), parents, teachers and peer support are associated with students' perceived life-satisfaction. Both Jacobs and Dodd (2003) and Yang (2004) stated that parents, teachers, faculties and peer advisers are strongly needed as a student's social support system to allow him or her to alleviate burnout through interventions and to improve the student's academic achievement. According to Breier and Letseka (2008), some students do not have the parental support other students have, which has a negative effect on the student. Consequently, parent/guardian support is vital for the student and can be seen as a very important factor. Sampson (2010) indicates that the level of family support has a great influence on the student's learning experience and can determine

whether or not students will be successful in their studies. Peer support, according to Hymel, Comfort, Schonert-Reichl, and McDougall (1996), will also contribute to an individual's achievement due to the profound influence it has on everyday behaviour. According to Alarcon et al. (2011), individuals who are engaged will generate more resources in their environment, as opposed to individuals who experience burnout. Engaged individuals will invest in different resources, such as being physically fit, developing their social support systems and increasing their positive emotions.

From the above it is clear that there is a need to explore student burnout and engagement, and to determine possible predictors thereof in the South African context. It is therefore important for higher education institutions, parents and students to recognise and know what the causes of student burnout and engagement are. These predictors could assist universities in managing burnout and enhancing student engagement.

The following research questions emerge from the problem statement:

- How are student burnout and student engagement conceptualised according to the literature?
- Are core self-evaluation traits (self-esteem and self-efficacy) significant predictors of student burnout and engagement?
- Are career decision-making difficulties significant predictors of student burnout and engagement?
- Is social support a significant predictor of student burnout and engagement?
- What recommendations can be made for future research?

1.2 RESEARCH OBJECTIVES

The research objectives are divided into a general objective and specific objectives.

1.2.1 General objective

The general objective of this study is to conceptualise student burnout and student engagement, and to determine significant predictors thereof.

1.2.2 Specific objectives

The specific objectives of this research are:

- To determine how student burnout and engagement are conceptualised according to the literature.
- To determine whether core self-evaluation traits (self-esteem and self-efficacy) are significant predictors of student burnout and engagement.
- To determine whether career decision-making difficulties are significant predictors of student burnout and engagement.
- To determine whether social support is a significant predictor of student burnout and engagement.
- To make recommendations for future research.

1.3 RESEARCH HYPOTHESES

- H_{1a}: There will be significant relationships between student burnout, student engagement and personality characteristics such as self-esteem.
- H_{1b}: There will be a significant relationship between student burnout, student engagement and the personality characteristics, self-efficacy.
- H_{2a}: There will be significant relationships between student burnout, student engagement and lack of information.
- H_{2b}: There will be significant relationship between student burnout, student engagement and inconsistent information.
- H₃: Social support will mediate between student burnout and student engagement.

1.4 RESEARCH METHOD

The research method consists of a literature review and an empirical study. The results obtained are presented in the form of a research article.

1.4.1 Literature review

A complete literature review of student burnout, student engagement and its predictors will be done. Different sources will be used, such as EBSCOHOST, Emerald, Science Direct, ProQuest, Nexus Lexis and SACat. The keywords that will be used in the search are as follows: student burnout, student engagement, core self-evaluation traits, self-efficacy, self-esteem, career decision-making difficulties, social support, higher education, universities and colleges.

1.4.2 Research participants

The participants will be from a higher education institution. All will be full-time students. A non-probability quota sample will be used within all the different faculties of the institution. The different faculties of the institution that will be investigated are: Education Sciences, Health Sciences, Theology, Natural Sciences, Law, Arts, Engineering and Economic and Management Sciences. According to Struwig and Stead (2001), non-probability quota sampling requires that participants need to comply with certain criteria to be able to contribute. An availability sample of 782 participants will be used in this study. The characteristics of these participants differ with regard to gender, age, racial group (African, Indian, white and coloured) and year of study (first year to sixth year).

1.4.3 Measuring instruments

The following questionnaires will be used in the study:

Biographical questionnaire. A biographical questionnaire will be given to the participants to obtain information about their socio-demographics, gender, academic year, historical year and which faculty they are in. Further questions will be developed to obtain external predictors. These questions related to career guidance (e.g. “Did you receive career guidance before you decided on a course of study?”), parental influence (e.g. “Did your parents or guardians help you to choose a course of study and a possible career?”), other influences on the student’s career decision, for example work experience (e.g. “Before you chose your degree/possible career, did

you already have work experience in that environment?") and financial pressure (e.g. "Did financial costs influence your decision to follow this specific course of study?"), whether they had changed their course of study (e.g. "Have you ever changed your course of study?") and whether the student believed that he or she was studying the right course (e.g. "How confident are you that you are following the right course of study?").

Core self-evaluation traits. Self-esteem will be measured with Rosenberg's (1965) Self-Esteem Scale. Examples of Rosenberg's 10-item self-esteem scale are: "I feel that I have a number of good qualities" and "On the whole, I am satisfied with myself". The Cronbach alpha reliability coefficient for self-esteem is 0,88. Self-efficacy will be measured with the self-efficacy scale developed by Judge, Erez, Bono & Thoresen, 2003 (see also Judge, Locke, Durham & Kluger, 1998). This scale consists of eight items (e.g. "I am strong enough to overcome life's struggles" and "I feel competent to deal effectively with the real world"). The response scale is a five-point Likert response, ranging from *strongly disagree* (1) to *strongly agree* (5). The Cronbach alpha coefficient for self-efficacy is 0,89 (Judge et al., 2003).

Career decision-making difficulties. The Career Decision-Making Difficulty Questionnaire (CDDQ) will be used to examine the difficulties students experience in the decision-making process (Gati & Saka, 2001). The questionnaire has 34 items which are divided into three major groups: lack of readiness; lack of information; and inconsistent information. Each of the major groups has sub-categories of difficulty (Gati & Saka, 2001).

Lack of readiness. This in turn contained three sub-categories, namely lack of motivation, indecisiveness and dysfunctional beliefs. Each one of these categories will be measured with three items: lack of motivation (e.g. "Work is not the most important thing in one's life and therefore the issue of choosing a career doesn't worry me much"); indecisiveness (e.g. "I am usually afraid of failure"); and dysfunctional beliefs (e.g. "I believe there is only one career that suits me").

Lack of information. Here there will be four sub-categories, namely lack of information about the decision-making process, lack of information about the self, lack of information

about occupations and lack of information about ways of obtaining information (Gati & Saka, 2001). These three sub-categories together constitute lack of information about the decision-making process (three items in the questionnaire, e.g. “I find it difficult to make a career decision because I do not know what factors to take into consideration”), lack of information about the self (four items in the questionnaire, e.g. “I find it difficult to make a career decision because I still do not know which occupations interest me”), lack of information about occupations (three items in the questionnaire, e.g. “I find it difficult to make a career decision because I don't know what careers will look like in the future”) and lack of information about ways of obtaining information (two items in the questionnaire, e.g. “I find it difficult to make a career decision because I do not know how to obtain accurate and updated information about the existing occupations and training programmes, or about their characteristics”).

Inconsistent information. This will have three sub-categories, which is unreliable information, internal conflicts and external conflicts (Gati & Saka, 2001). Unreliable information will have three items (e.g. “I find it difficult to make a career decision because I have contradictory data about the existence or the characteristics of a particular occupation or training programme”), internal conflicts will have five items (e.g. “I find it difficult to make a career decision because I do not like any of the occupations or training programmes to which I can be admitted”) and external conflicts will have two items (e.g. “I find it difficult to make a career decision because people who are important to me (such as parents or friends) do not agree with the career options I am considering and/or the career characteristics I desire”).

A nine-point Likert scale will be used, which ranged from 1 (does not describe me) to 9 (describes me well). The Cronbach alpha coefficients of the three broad dimensions are as follows: lack of readiness: 0,71; lack of information: 0,91; and inconsistent information: 0,93 (Gati et al., 1996).

Social support. Two types of support will be measured with self-developed items. Parental support will be measured with a three-item scale (e.g. “I always receive help from my parents or

guardians when difficulties in my studies arise”). General support will be measured with a four-item scale (e.g. “I have a network of people with whom I can discuss personal problems”). The validity and reliability of the scales will be examined before the measurements are included in the analyses.

Student burnout. Levels of exhaustion and cynicism of the participants will be measured with the Maslach Burnout Inventory-Student Survey (MBI-SS) (Schaufeli et al., 2002a). Exhaustion will be measured with five items (e.g. “I feel emotionally drained by my studies”), and cynicism will be measured with four items (e.g. “I have become less enthusiastic about my studies”). All items will be scored on a seven-point frequency rating scale ranging from 0 (never) to 6 (always) (Schaufeli et al., 2002a). In South African samples, Mostert, Pienaar, Gauché and Jackson (2007) reported acceptable Cronbach alpha coefficients (0,74 for exhaustion 0,68 for cynicism), whereas Pienaar and Sieberhagen (2005) reported reliabilities of 0,79 for exhaustion and 0,73 for cynicism.

Student engagement. The Utrecht Work Engagement Scale-Student Survey (UWES-S) (Schaufeli et al., 2002b) will be used to measure student engagement. The participants’ levels of vigour and dedication will be measured. Vigour will be measured with five items (e.g. “When I study, I feel like I am bursting with energy”), while dedication will be measured with five items (e.g. “I am enthusiastic about my studies”). Items are scored on a seven-point Likert scale. This scale ranges from 0 (never) to 6 (every day). Pienaar and Sieberhagen (2005) found the reliability for vigour was 0,77 and for dedication 0,85. Similarly, Mostert et al. (2007) reported acceptable Cronbach alpha coefficients for vigour (0,70) and dedication (0,78).

1.4.4 Research procedure

A letter of approval will be submitted to the Campus Registrar describing the goal of the study, the reasons why the topic needs to be researched and who the participating students would be, and indicating how the university could contribute to and benefit from this research. The Ethical Committee will be asked to grant authorisation to acquire the students’ academic records. An email circular will be sent to all students, some of whom then volunteered to take part in the

research study. This email will have a link that directed the prospective participant to a secure website in which the importance of the study, the research objectives, the research procedure and the ethical issues will be explained briefly. An informed consent form will be obtained prior to the questionnaire being sent out. Students could complete the questionnaire in their own time.

1.4.5 Statistical analysis

The statistical analysis will be carried out with the help of the SPSS program (SPSS, 2011). The data will be analysed using descriptive statistics (e.g. means, standard deviations) and inferential statistics. Cronbach alpha coefficients will be used to assess the reliability of the constructs (Clark & Watson, 1995). Pearson product-moment correlation coefficients will be used to determine the relationships between the constructs. The statistical significance value will be set at a 95% confidence interval level ($p \leq 0,05$). For the practical significance of correlation coefficients, cut-points of 0,30 (medium effects) and 0,50 (large effect) will be set (Cohen, 1988). Hierarchical multiple regression analyses will be used in this study to relate the dependent variables (burnout and engagement) to the predictors or independent variables (core self-evaluation traits, career decision-making difficulty and social support).

1.4.6 Ethical considerations

This research project complies with the fairness and ethical considerations for such research. Participation by the students had to be voluntary and they will be required to complete an informed consent form first. Confidentiality and privacy will be assured. A review of the research study will be done by the Ethics Committee of the institution.

1.5 OVERVIEW OF CHAPTERS

Chapter 1 of the dissertation is the introductory chapter. In Chapter 2 the findings of the research objectives are discussed in the form of a research article and Chapter 3 deals with the conclusion, limitations and recommendations of the research.

1.6 CHAPTER SUMMARY

The problem statement and research objectives were presented in this chapter. The measuring instruments and the research method used were explained, followed by a concise overview of the chapters that follow.

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CHAPTER 2

RESEARCH ARTICLE 1

PREDICTORS OF BURNOUT AND ENGAGEMENT OF UNIVERSITY STUDENTS

ABSTRACT

Orientation: Student burnout and engagement are becoming crucial aspects that higher education institutions must consider. It is therefore important to examine the possible predictors of these occurrences.

Research purpose: The aim of this study is to determine whether core self-evaluation traits, career decision-making difficulty and social support have an impact on student burnout and engagement.

Motivation for the study: The results could assist universities to obtain more knowledge and a greater understanding of the possible predictors of burnout and engagement among students in South Africa.

Research design, approach and method: A cross-sectional design was used with a non-probability quota sample ($N = 782$).

Main findings: In the multiple regression analyses, 15% of the variance in exhaustion, 27% of the variance in cynicism, 13% of the variance in vigour and 27% of the variance in dedication were predicted by the variables included in the final step. More specifically, self-efficacy, inconsistent information due to internal conflict and parental support were significant predictors for all four dimensions (exhaustion, cynicism, vigour and dedication). Self-esteem was also a significant predictor for the two engagement dimensions. In addition, lack of information about the self, lack of information about the occupations and inconsistent information due to external conflict predicted cynicism.

Practical/managerial implications: The results provide students, parents and higher education institutions insight into specific predictors for student burnout and engagement. Various recommendations are given as to how the causes of student burnout and the lack of engagement can be managed.

Contribution/value-add: The study contributes to the limited amount of research on predictors of burnout and engagement among university students in South Africa.

Keywords: Student burnout, student engagement, core self-evaluation traits, self-esteem, self-efficacy, career decision-making difficulty, social support, higher education institution, university students

INTRODUCTION

Burnout and work engagement are well-researched concepts in the organisational psychology literature. However, *student* burnout and lack of engagement could also be a problem for higher education institutions (Jacobs & Dodd, 2003; Law, 2010; Noushad, 2008; Schaufeli, Salanova, González-Roma & Bakker, 2002a). Students are regarded as suffering burnout when they are distant, lack energy and are cynical about their studies, whereas students who are more engaged are more energetic and involved in their studies (Salanova, Schaufeli, Martínez & Bresò, 2010).

It is important to consider both student burnout and engagement, because it could indicate how well students will function in their future working environment. Salmela-Aro, Tolvanen and Numri (2009) indicate that the achievement strategies that young people use during their university years can predict work burnout and engagement early in their careers. In studies conducted by Nowack and Pentkowski (1994), Maslach, Jackson and Leiter (1997), and Pillay and Ngcobo (2010), it was found that students with burnout show a variety of personal dysfunctions, such as physical exhaustion, insomnia and an increase in alcohol and drug abuse. Gan, Yang, Zhou and Zhang (2007) state that students who experience burnout tend to have higher levels of absenteeism and show aggressive behaviours. According to Gan et al. (2007), this could lead to a negative influence on the student's personal life and academic environment, which in the future could lead to drop out (Pisarik, 2009).

Previous research has indicated various predictors of student burnout, including work overload, time pressure (Pienaar & Sieberhagen, 2005), class attendance and submitting assignments (Noushad, 2008; Law, 2010), competition with peers, poor teaching, poor student-teacher relationships, and competing engagements in other domains of life (Moneta, 2010). Student burnout can affect the student's view, commitment and general attractiveness of the university, which can influence future enrolment of new students (Neumann, Finaly-Neuamann & Reichel, 1990). University counsellors, administrators and faculties should therefore be informed as to how burnout could affect students, and that they need to be equipped to assist students with burnout (Law, 2007).

Although it is important to investigate student burnout, it is just as important to consider the effect engagement has on students. Maslach and Leiter (1997) indicated that student engagement is characterised as the direct opposite of student burnout. Student engagement can also be seen as a compulsion to participate, a desire to be willing, and as a positive mechanism that assists students to improve their academic performance and perseverance (Law, 2010; Miller, Rycek & Fritson, 2011; Salanova et al., 2010). This positive aspect of students' well-being can retain or attract new students to the university (Hampton, 1983). Strydom, Kuh and Mentz (2010) also indicate that if students are more engaged in their educational environment, it could enhance the university's efficiency and effectiveness. Students who are more engaged in their studies will cope more in their course work (Law, 2007), achieve academically, acquire certain skills and knowledge, and be more persistent in obtaining their educational goals (Kuh, Kinzie, Buckley, Bridges & Hayek, 2007). Engagement can also determine students' passion and motivation for their studies (Stoeber, Childs, Hayward & Feast, 2011).

Internationally, studies have focused on the theoretical background of burnout and engagement in the university environment and investigated whether the measuring instruments used are valid and reliable (Alarcon, Edwards & Menke, 2011; Kuh, 2009; Law, 2010; Noushad, 2008; Schaufeli, Martínez, Pinto, Salanova & Bakker, 2002b; Schaufeli et al., 2002a). Some studies focused on the effect that burnout and engagement has on the students' learning experience and involvement (Laird, 2005; Law, 2007; Miller et al., 2011), their academic performances (Salanova et al., 2010), and dropout (Murtaugh, Burns & Schuster, 1999). Further studies led to the association of students' personality (Jacobs & Dodd, 2003) and their motivation (Cushman & West, 2006; Pisarik, 2009) with burnout and engagement. These studies focused on self-esteem (Dahlin, Joneborg & Runeson, 2007; Lee, Puig, Kim, Shin, Lee & Lee, 2010; Rui, 2008); self-efficacy (Bandura, 1977; Bresò, Schaufeli & Salanova, 2011; Kelly, 2007; Yang, 2004); and social support (Breier & Letseka, 2008; Jacobs & Dodd, 2003; Kelly, 2007; Neumann et al., 1990; Lee et al., 2010; Sampson, 2010; Yang & Farn, 2005) as predictors of student burnout and engagement.

In South Africa a few studies have been done on student burnout and student engagement (Gauché, 2006; Grobbelaar, Malan, Steyn & Ellis, 2010; Grobbelaar, Malan, Steyn & Ellis,

2011; Morgan & De Bruin, 2010; Mostert, Pienaar, Gauche & Jackson, 2007; Pienaar & Sieberhagen, 2005; Strydom et al., 2010). However, none of these studies focused on core self-evaluation traits (self-esteem and self-efficacy), career decision-making difficulties or social support as predictors of student burnout and engagement. It is important to understand the effect these predictors may have on student burnout and engagement so that information can be provided to higher education institutions to enable them to assist students with burnout and enhance student engagement. Indeed, research indicates that little research has been done on student burnout and disengagement and it is recognised as a problem for students in universities or colleges (Jacobs & Dodd, 2003; Schaufeli et al., 2002b).

The objectives of this study were therefore to determine whether core self-evaluation traits (self-esteem and self-efficacy), career decision-making difficulty and social support are significant predictors of student burnout and engagement.

LITERATURE REVIEW

Student burnout and engagement

Student well-being is a positive emotional state that is a combination of a number of specific factors and personal needs and expectations (Engels, Aeltermann, Schepens & Van Petegem, 2004). Student burnout and engagement are two indicators of well-being. Burnout can be defined as a condition of emotional exhaustion combined with physical and mental exhaustion from work; this is combined with a negative and cynical outlook or attitude about their clients, themselves and their accomplishments (Maslach & Jackson, 1981) and consists of two core dimensions: exhaustion and cynicism. *Exhaustion* is described as “wearing out, loss of energy, depletion, debilitation, and fatigue” (Maslach, Leiter & Schaufeli, 2008, p. 89). *Cynicism* (or depersonalisation) can be described as losing emotional/cognitive involvement or a negative, detached reaction to work (Maslach et al., 2008).

Engagement can be seen as the opposite of burnout. Whereas burned-out students lack energy and distance themselves by displaying a cynical attitude toward their studies, engaged students feel energetic and identify strongly with their studies as they are deeply involved in them

(Salanova et al., 2010). Therefore engagement can be defined as a satisfying, positive, work-related state of mind that prefers to be more persistent and pervasive and does not focus on a particular object, event, individual or behaviour (Schaufeli et al., 2002b). Engagement can be characterised by two core dimensions, namely vigour and dedication. *Vigour* is explained as high levels of energy and mental resilience while working, and being willing to put in effort and be persistent about one's work, although it can be difficult. *Dedication* refers to a sense of significance, enthusiasm, inspiration and pride in one's work, and a challenge to the individual (Schaufeli et al., 2002a).

Academic preparation and motivation can help a student to graduate (Strydom et al., 2010). Pisarik (2009) stated that students who have greater levels of intrinsic motivation will be likely to have lower levels of exhaustion and cynicism, and higher levels of efficacy. According to Kuh (2009), student engagement is measured in institutions to determine the undergraduate's experience, and to improve where the university is lacking. It is necessary to take student engagement into consideration as it is an indicator of the student's and the university's performance, and it indicates how the university encourages the student to take part in educational activities (Kuh, 2009). According to Kuh et al. (2007), student engagement has a positive effect on grades and the persistence of students, which helps them to cope with their course work (Law, 2007).

Student burnout and engagement and the relationship to core self-evaluation traits

According to Hochwalder (2006), a person's personality can have an influence on whether an individual will be affected by ill health and burnout, or protected against it. Booth-Kewley and Vickers (1994) also indicate that personality can influence an individual's well-being, health, every-day actions and behaviours. It is recommended that core self-evaluation traits should be included as predictors of burnout and engagement (Morgan & De Bruin, 2010). Two core self-evaluation traits are self-esteem and self-efficacy, which can have an influence on burnout and engagement.

Self-esteem is a favourable or unfavourable attitude towards the self (Rosenberg, 1965) and can be described as different childhood experiences, thoughts and feelings, that sooner or later

develop into a “working model of self” (Schmitt & Allik, 2005). As opposed to previous studies, Dahlin et al. (2007) found that students’ performance-based self-esteem is associated with burnout and that it will still occur when performance-based self-esteem is motivated under negative working conditions. Rui (2008) states that students with lower self-esteem are likely to be more disengaged, and the level of disengagement is dependent on the contingency of the student’s self-worth on academic matters. According to Rui (2008), self-esteem plays a vital role in the dissonance process, academic disengagement and academic achievement. Individuals who have high self-esteem tend to feel better about themselves, despite what their academic status may be (Forsyth, Lawrence, Bernette & Baumeister, 2007). In contradiction to this, Lee et al. (2010) found that students who have more perseverance and self-esteem tend to have higher grades as well as higher emotional exhaustion. It can therefore be expected that students with higher self-esteem will experience lower levels of burnout and higher levels of engagement (Hypothesis 1a).

The concept of self-efficacy, according to Stajkovic and Luthans (1998), explains “how individuals’ beliefs or confidence in their capabilities affect the environment and control their actions in ways that produce the desired outcomes.” Self-efficacy is also an indication of an individual’s view of himself or herself as competent and worthy, and how they perform in different situations (Locke, McClear & Knight, 1996). High self-efficacy helps an individual to be well adjusted, positive, self-confident, efficacious and to believe in his or her own actions (Judge, Erez, Bono & Thoresen, 2003). An individual with low self-efficacy tends to engage in avoidance behaviour: he or she holds on to self-devastating or incapacitating expectations and experiences aspects such as depression and a narrow vision in solving problems (Bandura, 1977; Yang, 2004). According to Lee et al. (2010), students who function well in the higher education environment will have high academic efficacy and low emotional exhaustion and cynicism. On the other hand, higher self-efficacy will lead to an increase in engagement among students, which will enhance their performance (Bresó et al., 2011). Yang (2004) and Bresó et al. (2011) state that if an individual experiences a higher level self-efficacy, his or her chances are less of experiencing burnout. It can therefore be expected that students with higher self-efficacy will experience lower burnout and higher engagement (Hypothesis 1b).

Student burnout and engagement and the relationship to career decision-making difficulties

Career decision-making is a vital aspect for students who enrol in universities or any other higher education institution. Gati, Krausz and Osipow (1996) developed a taxonomy of career decision-making difficulties in which these different aspects are taken into consideration. Career decision-making difficulties can be divided into three categories, namely: lack of readiness, lack of information and inconsistent information (Gati et al., 1996). The category *lack of readiness* is divided into three sub-categories of difficulty that may occur before the career decision-making process: (1) lack of motivation to take part in the career decision-making process; (2) indecisiveness regarding various types of decision; and (3) dysfunctional beliefs, as well as an individual irrational expectation concerning the career decision-making process.

In the career decision-making process, difficulties can arise within the other two categories. *Lack of information* consists of four sub-categories: (1) lack of information about the process of making a decision; (2) lack of information about the self; (3) lack of information about the work and its environment; (4) lack of information about the various ways of dealing with information. *Inconsistent information* has three sub-categories: (1) unreliable information; (2) internal conflicts, that is, conflicts within the individual; and (3) external conflicts that involve the influences of others.

Unprepared students lack the required competencies which they need to succeed in their desired course (Sampson, 2010). Kleiman, Gati, Peterson, Sampson, Reardon and Lenz (2004) state there is a relationship between the lack of information about the self and the overall severity of difficulties, and that the difficulties indicate a need for counselling to manage or overcome them. According to Reece (2011), the lack of preparation in making a career decision and the lack of assistance in this regard causes students to endure higher levels of stress when they graduate. High levels of stress can be seen as a sign of career exploration and career decision-making difficulty (Gati & Saka, 2001).

Tien (2005) states that there is a relationship between anxiety and career indecision. Students who gather information on the self and their working environment tend to reduce the degree of

career indecision they experience (Guay, Ratelle, Senécal, Larose & Deschênes, 2006). According to Guay et al. (2006), developmental and chronic indecision can occur because of a lack of information on the individual self and his or her working environment. Guay et al. (2006) explain that students who have a high level of independence tend to seek information on themselves and their working environment, and that this indicates a characteristic such as high self-efficacy, which can lead students to be more engaged. Thus if students have a low level of independence as well as a low level of self-efficacy, it can be interpreted as avoidance in seeking help in obtaining information about themselves and their working environment (Guay et al., 2006). It can therefore be expected that students with a lack of information will experience higher burnout and lower engagement (Hypothesis 2a).

Inconsistent or unreliable information can be described as the individual's own capabilities that he or she thinks they need to make a career decision (Gati et al., 1996). Students can be inhibited in making a decision about their career development process through inadequate information, and this can have an impact on indecisiveness (Gaffner, 2002). Chen (2008) states that, if students are loaded with the different factors of indecisiveness or indecision, they will suffer anxiety and concerns. This can result in students being less effective in exploring other decision-making options (Chen, 2008). Students with a well-defined idea of where their career interests lie are less confused about making the appropriate career decision (McMillan, 2005). Consequently, individuals who are indecisive tend to be more anxious and pressured to make a career choice (Hartley, 2009; Wanberg & Muchinsky, 1992). It is therefore expected that students with inconsistent information will experience higher burnout and lower engagement (Hypothesis 2b).

Student burnout and engagement and the relationship to social support

Social support according to Yang (2004) can be seen as a vital aspect in influencing burnout, and it is determined as a resource for students to manage (Alarcon et al., 2011). According to Sarason, Levine, Basham and Sarason (1983), social support is defined as the availability of people who can be relied on and people who care and value others. Yang and Farn (2005) also indicate that the social support network is a crucial resource in helping students to prevent burnout. Tinto (1997) indicates that collaborative shared learning is an essential factor in promoting student engagement. Learning communities or internships are relevant in helping

students' with their long-term career plans as well as their student engagement (Miller et al., 2011). According to Yang and Farn (2005), teachers in the education system need to support, praise and motivate students more to ensure that student burnout will decrease. Breier and Letseka (2008) are of the opinion that students who have high levels of support from their parents tend to be more successful in their studies, which could lead to student engagement. Neumann et al. (1990) indicate that students will have a low level of emotional exhaustion and stress if they are supported by their supervisors and have good colleague relationships. It can therefore be expected that students with social support will experience low burnout and high engagement (Hypothesis 3).

RESEARCH DESIGN

Research approach

The study was conducted from a quantitative perspective with a cross-sectional design. Quantitative research can be defined as research that assembles and studies numerical data in a methodical and objective manner (Maree, 2010). Trochim and Donnelly (2007) define the cross-sectional design as research that is done in one particular point in time. This design was used to achieve the specific objectives of this study.

Research method

Research participants

The respondents consisted of 782 full-time students from a higher education institution. A non-probability quota sample was used within all the different faculties of the institution. E-mails were sent to all the students, from first to sixth year. The e-mail addresses of the students and the university personnel could not be differentiated as both parties used their student/personnel numbers as e-mail addresses. The e-mails were therefore sent to everyone in the e-mail list. However, it was stated in the message that this survey included registered students only. As a result, the response rate could unfortunately not be calculated. The characteristics of the participants are shown in Table 1.

Table 1

Characteristics of the Participants (N = 782)

Item	Category	Frequency	Percentage
Gender	Male	279	35,70
	Female	503	64,30
Age	18-20 years	314	40,10
	21-29 years	461	59,00
	30-39 years	5	0,60
	40-47 years	2	0,20
Race	White	713	91,20
	African	48	6,10
	Coloured	18	2,30
	Indian	2	0,30
Academic year	First Year	214	27,40
	Second Year	186	23,80
	Third Year	206	26,30
	Fourth Year	115	14,70
	Postgraduate	61	7,80
Historical year	First Year	206	26,30
	Second Year	165	21,10
	Third Year	190	24,30
	Fourth Year	141	18,00
	Postgraduate	80	10,20
Faculty	Faculty of Arts	64	8,20
	Faculty of Economic and Management Sciences	202	25,80
	Faculty of Education Sciences	72	9,20
	Faculty of Engineering	118	15,10
	Faculty of Law	61	7,80
	Faculty of Natural Sciences	117	15,00
	Faculty of Theology	10	1,30
	Faculty of Health Sciences	138	17,60
Career guidance	No	355	45,40
	Yes	427	54,60
Work experience	No	583	74,60
	Yes	199	25,40

Table 1 continued

Characteristics of the Participants (N = 782)

Help from parents to choose course and career	No	393	50,3
	Yes	389	49,7
Help from others to choose course and career	No	437	55,9
	Yes	345	44,1
Change in study course	No	639	81,7
	Yes	143	18,3

Table 1 indicates that the majority of the participants were white (91,20%). More than half were females (64,30%) between the ages of 21 and 29 years (59,00%). Students from each academic year were evenly distributed. The participants in the Faculty of Theology were in the minority (1,30%), while participants in the Faculty of Economic and Management Sciences were in the majority (25,80%). In total, 45,40% of the participants had not received career guidance before choosing a course of study, while only 25,40% of the participants had work experience before deciding on a possible career. 49,70% of the participants indicated that they had received help from their parents and 44,10% from others in making a decision on course of study and possible career. A total of 81,70% stated that they had not changed their study course.

Measuring instruments

The following questionnaires were used in the study:

Biographical questionnaire: A biographical questionnaire was given to the participants to obtain information about their socio-demographics, gender, academic year, historical year and faculty. Further questions were developed to attain external predictors. These questions included information on career guidance (e.g. “Did you receive career guidance before you decided on a course of study?”), parental influence (e.g. “Did your parents or guardians help you to choose a course of study and a possible career?”), other influences on the students’ career decisions, such as work experience (e.g. “Before you chose your degree/possible career, did you already have work experience in that environment?”) and financial pressure (e.g. “Did financial costs

influence your decision to follow this specific course of study?”), whether they had changed their course of study (e.g. “Have you ever changed your course of study?”) and whether the student was sure that he or she was studying the right course (e.g. “How confident are you that you are following the right course of study?”).

Core self-evaluation traits. Self-esteem was measured by Rosenberg’s (1965) self-esteem scale. Examples of Rosenberg’s 10-item self-esteem scale are “I feel that I have a number of good qualities” and “On the whole, I am satisfied with myself”. The Cronbach alpha for self-esteem was 0,88. Self-efficacy was measured with the self-efficacy scale (Judge et al., 2003; Judge, Locke, Durham & Kluger, 1998), which was developed by Judge et al. (2003) and consists of eight items (e.g. “I am strong enough to overcome life’s struggles” and “I feel competent to deal effectively with the real world”). The response scale was a five-point Likert response, ranging from *strongly disagree* (1) and *strongly agree* (5). The Cronbach alpha for self-efficacy was 0,89 (Judge et al., 2003).

Career decision-making difficulties. The Career Decision-Making Difficulty Questionnaire (CDDQ) was used to examine the difficulties students experience in the decision-making process (Gati & Saka, 2001). The questionnaire has 34 items divided into three major groups: Lack of readiness, Lack of information and Inconsistent information. Each of the major groups has sub-categories of difficulty (Gati & Saka, 2001).

Lack of readiness contains three sub-categories, namely lack of motivation, indecisiveness and dysfunctional beliefs. Each of these categories was measured with three items: lack of motivation (e.g. “Work is not the most important thing in one’s life and therefore the issue of choosing a career doesn't worry me much”), indecisiveness (e.g. “I am usually afraid of failure”), and dysfunctional beliefs (e.g. “I believe there is only one career that suits me”).

Lack of information has four sub-categories, namely lack of information about the decision-making process, lack of information about the self, lack of information about occupations and lack of information about ways of obtaining information (Gati & Saka, 2001). These four sub-categories are explained as follows: (1) lack of information about the decision-making process

(three items, e.g. “I find it difficult to make a career decision because I do not know what factors to take into consideration”), (2) lack of information about the self (four items, e.g. “I find it difficult to make a career decision because I still do not know which occupations interest me”), (3) lack of information about occupations (three items, e.g. “I find it difficult to make a career decision because I don't know what careers will look like in the future”), and (4) lack of information about ways of obtaining information (two items, e.g. “I find it difficult to make a career decision because I do not know how to obtain accurate and updated information about the existing occupations and training programmes, or about their characteristics”).

Inconsistent information has three sub-categories: unreliable information, internal conflicts and external conflicts (Gati & Saka, 2001). Unreliable information has three items (e.g. “I find it difficult to make a career decision because I have contradictory data about the existence or the characteristics of a particular occupation or training programme”), internal conflicts has five items (e.g. “I find it difficult to make a career decision because I do not like any of the occupation or training programmes to which I can be admitted”), and external conflicts has two items (e.g. “I find it difficult to make a career decision because people who are important to me (such as parents or friends) do not agree with the career options I am considering and/or the career characteristics I desire”).

A nine-point Likert scale was used, which ranged from 1 (does not describe me) to 9 (describes me well). The Cronbach alpha coefficients of the three broad dimensions are as follows: lack of readiness: 0,71; lack of information: 0,91; and inconsistent information: 0,93 (Gati et al., 1996).

Social support. Two types of support were measured with self-developed items. Parental support was measured with a three-item scale (e.g. “I always receive help from my parents or guardians when difficulties in my studies arise”). General support was measured with a four-item scale (e.g. “I have a network of people with which I can discuss personal problems”). The validity and reliability of the scales were examined before including them in the analyses.

Student burnout. Levels of exhaustion and cynicism of the participants were measured with the *Maslach Burnout Inventory-Student Survey* (MBI-SS) (Schaufeli, et al., 2002b). Exhaustion was

measured with five items (e.g. “I feel emotionally drained by my studies”), and cynicism was measured with four items (e.g. “I have become less enthusiastic about my studies”). All items are scored on a seven-point frequency rating scale ranging from 0 (never) to 6 (always) (Schaufeli et al., 2002b). In South African samples, Mostert et al. (2007) reported acceptable Cronbach alpha coefficients (0,74 for exhaustion and 0,68 for cynicism), whereas Pienaar and Sieberhagen (2005) reported reliabilities of 0,79 for exhaustion and 0,73 for cynicism.

Student engagement. The *Utrecht Work Engagement Scale-Student Survey* (UWES-S) (Schaufeli et al., 2002a) was used to measure student engagement. The participants’ levels of vigour and dedication were measured. Vigour was measured with five items (e.g. “When I study, I feel like I am bursting with energy”). Dedication was also measured with five items (e.g. “I am enthusiastic about my studies”). Items were scored on a seven-point Likert scale. This scale ranged from 0 (never) to 6 (every day). Pienaar and Sieberhagen (2005) found the reliability for vigour was 0,77 and for dedication 0,85. Similarly, Mostert et al. (2007) report acceptable Cronbach alphas for vigour (0,70) and dedication (0,78).

Research procedure

A letter of approval was submitted to the Campus Registrar describing the goal of the study, the reasons why the topic needs to be researched and who the participant students would be, and indicating how the university could contribute to and benefit from this research. The ethical committee was asked to grant authorisation to acquire the academic records of the participants. An e-mail was sent to all the students who agreed to voluntarily participate in the research study. This e-mail had a link that directed them to a secure website in which the importance of the study, the research objective, the research procedure and the ethical issues were explained briefly. An informed consent form was given prior to sending the questionnaire. The participants could complete the questionnaire in their own time.

Statistical analysis

The statistical analysis was carried out with the help of the SPSS programme (SPSS, 2011). The data were analysed using descriptive statistics (e.g. means, standard deviations) and inferential statistics. Cronbach alpha coefficients were used to assess the reliability of the constructs (Clark

& Watson, 1995). Pearson product-moment correlation coefficients were used to determine the relationships between the constructs. The statistical significance value was set at a 95% confidence interval level ($p \leq 0,05$). For the practical significance of correlation coefficients, cut-points of 0,30 (medium effects) and 0,50 (large effect) were set (Cohen, 1988). Hierarchical multiple regression analyses were used in this study to relate dependent variables (burnout and engagement) to the predictors or independent variables (core self-evaluation traits, career decision-making difficulty and social support). However, before the regression analyses were performed, MANOVA was used to determine whether there were significant differences in burnout and engagement levels for different socio-demographic variables. If significant differences were found, these variables were included as control variables in the regression analyses.

RESULTS

To determine whether control variables should be included in the regression analyses, MANOVA was used to determine whether there were significant differences in burnout and engagement levels and certain socio-demographic variables. These variables included gender, academic year, faculty, whether participants had received guidance before deciding on a course of study, work experience, help from parents and others to choose a course of study and possible career, and whether participants had changed their courses of study since they first registered. The results are reported in Table 2.

Table 2

MANOVA – Differences in Student Burnout and Engagement Levels Based on Socio-Demographic Characteristics

Variable	Value	<i>F</i>	<i>df</i>	<i>p</i>	Partial Eta Squared
Gender	0,99	2,14	4	0,07	0,01
Academic year	0,97	1,38	16	0,14	0,01
Faculty	0,94	1,73	28	0,01*	0,02
Career guidance	1,00	0,21	4	0,93	0,00
Work experience	0,99	2,1	4	0,08	0,01
Help from parents	1,00	0,76	4	0,55	0,00
Help from others	1,00	0,39	4	0,82	0,00
Changed course of study	0,99	2,1	4	0,08	0,01

* $p \leq 0,05$ = statistically significant

As can be seen in Table 2, the analysis of Wilk's lambda values showed no statistically significant differences ($p \leq 0,01$) in student burnout and engagement levels, except for faculty. However, inspection of the individual ANOVAs indicated no significant differences on the individual burnout and engagement levels between different faculties. Furthermore, although the MANOVA of work experience was not significant, the individual ANOVA showed that participants with work experience had significantly higher levels of dedication compared to those who had no work experience. It was therefore decided to control for work experience when predicting dedication.

The descriptive statistics, Cronbach alpha coefficients of the measuring instruments and the product-momentum correlations between the dimensions are reported in Table 3.

Table 3

Descriptive Statistics, Cronbach's Alpha Coefficients and Product-Moment Correlations Between the Study Variables

Item	<i>M</i>	<i>SD</i>	α	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Core self-evaluation																	
1 Self-esteem	4,31	0,72	0,83	-													
2 Self-efficacy	4,19	0,72	0,79	0,62**	-												
Lack of information about																	
3 Process	4,04	2,29	0,91	-0,26**	-0,29**	-											
4 Self	3,39	1,99	0,87	-0,33**	-0,35**	0,72**	-										
5 Occupations	4,03	2,32	0,90	-0,21**	-0,24**	0,74**	0,78**	-									
6 Obtaining information	3,47	2,13	0,79	-0,29**	-0,29**	0,70**	0,76**	0,79**	-								
Inconsistent information																	
7 Unreliable info	3,17	1,89	0,80	-0,24**	-0,27**	0,62**	0,73**	0,68**	0,71**	-							
8 Internal conflict	3,37	1,78	0,81	-0,27**	-0,29**	0,59**	0,69**	0,64**	0,64**	0,73**	-						
9 External conflict	2,65	1,98	0,81	-0,24**	-0,27**	0,39**	0,51**	0,44**	0,48**	0,56**	0,60**	-					
Support																	
10 Parental support	2,22	1,13	0,92	-0,24**	-0,10**	0,18**	0,17**	0,18**	0,16**	0,14**	0,16**	0,20**	-				
11 General support	1,95	0,93	0,90	-0,32**	-0,26**	0,26**	0,28**	0,27**	0,29**	0,25**	0,29**	0,26**	0,64**	-			
Burnout and engagement																	
12 Exhaustion	2,92	1,39	0,82	-0,24**	-0,24**	0,26**	0,28**	0,23**	0,25**	0,25**	0,30**	0,25**	0,22**	0,22**	-		
13 Cynicism	2,14	1,47	0,78	-0,29**	-0,29**	0,34**	0,40**	0,31**	0,35**	0,37**	0,43**	0,39**	0,22**	0,25**	0,67**	-	
14 Vigour	3,63	1,28	0,82	0,28**	0,24**	-0,23**	-0,21**	-0,21**	-0,22**	-0,19**	-0,24**	-0,14**	-0,18**	-0,18**	-0,38**	-0,26**	-
15 Dedication	4,52	1,25	0,88	0,37**	0,32**	-0,32**	-0,37**	-0,30**	-0,32**	-0,31**	-0,39**	-0,29**	-0,28**	-0,28**	-0,41**	-0,52**	0,67**

**Correlation is significant at the 0,01 level (2-tailed); correlation $\geq 0,30$ is practically significant (medium effect) and $\geq 0,50$ is practically significant (large effect)

From the results in Table 3 it can be seen that exhaustion, vigour and dedication were statistically and practically significantly correlated, with a medium effect, to inconsistent information due to internal conflict. Cynicism and dedication were statistically and practically correlated, with a medium effect, to lack of information of the decision-making process, lack of information about the self, lack of information about the occupations, lack of information in ways of obtaining information, inconsistent information due to unreliable information and inconsistent information due to internal conflict. Cynicism was statistically and practically significantly correlated, with a medium effect, to inconsistent information due to external conflict, and dedication was also statistically and practically correlated, with a medium effect, to self-esteem and self-efficacy. Exhaustion and vigour were statistically significantly correlated to self-esteem, self-efficacy, lack of information about the decision-making process, lack of information about the self, lack of information about the occupations, lack of information in ways of obtaining information, inconsistent information due to unreliable information, inconsistent information due to external conflict, parental support and general support. Cynicism was statistically significantly correlated to self-esteem, self-efficacy, parental support and general support, and vigour was statistically significantly correlated to inconsistent information due to internal conflict. Dedication was statistically significantly correlated to inconsistent information due to external conflict, parental support and general support. Table 3 also indicates that the Cronbach alpha coefficients of all the scales were acceptable and higher than the guideline of $\alpha > 0,70$, indicating that the measuring instruments were reliable (Nunnally & Bernstein, 1994).

To determine whether core self-evaluation traits, career decision-making difficulty and social support predict student burnout and engagement, hierarchical multiple regression analyses were used. The results are reported in Table 4.

Table 4

Multiple Regression Analysis With Exhaustion as Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²	ΔR^2
		B	SE	BETA						
1	(Constant)	5,33	0,32		16,83	0,00*	29,70	0,27	0,07	0,07
	Self-esteem	-0,29	0,08	-0,15	-3,40	0,00*				
	Self-efficacy	-0,28	0,09	-0,15	-3,33	0,00*				
2	(Constant)	3,65	0,39		9,46	0,00*	13,18	0,37	0,13	0,06
	Self-esteem	-0,20	0,08	-0,10	-2,38	0,02*				
	Self-efficacy	-0,15	0,08	-0,08	-1,80	0,07				
	Lack of info about the DM process	0,07	0,03	0,11	2,02	0,04*				
	Lack of info about the self	0,03	0,05	0,04	0,65	0,51				
	Lack of info about the occupations	-0,04	0,04	-0,06	-0,97	0,33				
	Lack of info about ways of obtaining info	0,01	0,04	0,02	0,32	0,75				
	Inconsistent info due to unreliable info	-0,00	0,04	-0,01	-0,08	0,94				
	Inconsistent info due to internal conflict	0,11	0,04	0,14	2,51	0,01*				
	Inconsistent info due to external conflict	0,05	0,03	0,07	1,67	0,10				
	3	(Constant)	3,12	0,42		7,53				
Self-esteem		-0,12	0,08	-0,06	-1,44	0,15				
Self-efficacy		-0,18	0,08	-0,10	-2,18	0,03*				
Lack of info about the DM process		0,06	0,03	0,09	1,74	0,08				
Lack of info about the self		0,03	0,05	0,05	0,74	0,46				
Lack of info about the occupations		-0,05	0,04	-0,08	-1,19	0,23				
Lack of info about ways of obtaining info		0,02	0,04	0,03	0,40	0,69				
Inconsistent info due to unreliable info		0,00	0,04	0,00	0,04	0,97				
Inconsistent info due to internal conflict		0,11	0,04	0,14	2,53	0,01*				
Inconsistent info due to external conflict		0,04	0,03	0,05	1,14	0,26				
Parental support		0,18	0,05	0,14	3,25	0,00*				
General support		0,01	0,07	0,01	0,18	0,86				

* Statistically significant $p \leq 0,05$

In multiple regression analysis the β coefficients indicate whether the variables have a positive or negative relationship. The positive β represents a positive relationship and the negative β represents a negative or inverse relationship. The t indicates the t -test, and if the t -test associated with the β value is significant, then the predictor makes a significant contribution to the model (Field, 2005).

In Table 4 the multiple regression analysis is summarised with core self-evaluation traits, career decision-making difficulties and social support as predictors of exhaustion. Entry of core self-evaluation traits at the first step of the regression analysis produced a statistically significant model ($F_{(2,779)} = 29,70$; $p = 0,00$), accounting for approximately 7% of the variance in exhaustion. More specifically, it seems that self-esteem ($\beta = -0,15$; $t = -3,40$; $p \leq 0,05$) and self-efficacy ($\beta = -0,15$; $t = -3,33$; $p \leq 0,05$) predict exhaustion in this step. When career decision-making difficulties were entered in the second step of the regression analysis, a statistically significant model was produced ($F_{(9,772)} = 13,18$; $p = 0,00$; $\Delta R^2 = 0,06$), which explained 13% of the variance in exhaustion. In this model, it seems that self-esteem ($\beta = -0,10$; $t = -2,38$; $p \leq 0,05$), lack of information about the decision-making process ($\beta = 0,11$; $t = 2,02$; $p \leq 0,05$), and inconsistent information due to internal conflict ($\beta = 0,14$; $t = 2,51$; $p \leq 0,05$) predict exhaustion. Finally, entry of social support in the third step of the regression analysis also produced a statistically significant model ($F_{(11,770)} = 12,65$; $p = 0,00$; $\Delta R^2 = 0,02$), accounting for 15% of the variance in exhaustion. More specifically, it seems that self-efficacy ($\beta = -0,10$; $t = -2,18$; $p \leq 0,05$), inconsistent information due to internal conflict ($\beta = 0,14$; $t = 2,53$; $p \leq 0,05$) and parental support ($\beta = 0,14$; $t = 3,25$; $p \leq 0,05$) predict exhaustion in the final step.

Table 5

Multiple Regression Analysis With Cynicism as Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²	ΔR^2
		B	SE	BETA						
1	(Constant)	5,22	0,33		15,80	0,00*	44,59	0,32	0,10	0,10
	Self-esteem	-0,35	0,09	-0,17	-3,98	0,00*				
	Self-efficacy	-0,38	0,09	-0,18	-4,26	0,00*				
2	(Constant)	2,47	0,38		6,50	0,00*	29,54	0,51	0,26	0,15
	Self-esteem	-0,20	0,08	-0,10	-2,43	0,02*				
	Self-efficacy	-0,16	0,08	-0,08	-1,93	0,05*				
	Lack of info about the DM process	0,05	0,03	0,08	1,51	0,13				
	Lack of info about the self	0,10	0,05	0,13	2,18	0,03*				
	Lack of info about the occupations	-0,07	0,04	-0,11	-1,75	0,08				
	Lack of info about ways of obtaining info	0,01	0,04	0,01	0,20	0,84				
	Inconsistent info due to unreliable info	0,00	0,04	0,00	0,05	0,96				
	Inconsistent info due to internal conflict	0,17	0,04	0,21	4,08	0,00*				
	Inconsistent info due to external conflict	0,12	0,03	0,16	4,00	0,00*				
	3	(Constant)	2,03	0,41		4,96				
Self-esteem		-0,14	0,08	-0,07	-1,65	0,10				
Self-efficacy		-0,18	0,08	-0,09	-2,21	0,03*				
Lack of info about the DM process		0,04	0,03	0,06	1,28	0,20				
Lack of info about the self		0,10	0,05	0,14	2,26	0,02*				
Lack of info about the occupations		-0,07	0,04	-0,12	-1,93	0,05*				
Lack of info about ways of obtaining info		0,01	0,04	0,01	0,25	0,80				
Inconsistent info due to unreliable info		0,01	0,04	0,01	0,14	0,89				
Inconsistent info due to internal conflict		0,17	0,04	0,21	4,08	0,00*				
Inconsistent info due to external conflict		0,11	0,03	0,14	3,56	0,00*				
Parental support		0,13	0,05	0,10	2,48	0,01*				
General support		0,02	0,07	0,02	0,35	0,73				

* Statistically significant $p \leq 0,05$

Table 5 summarises the regression analysis with core self-evaluation traits, career decision-making difficulties and social support as predictors of cynicism. Entry of core self-evaluation traits at the first step of the regression analysis produced a statistically significant model ($F_{(2,779)} = 44,59; p = 0,00$), accounting for approximately 10% of the variance in cynicism. More specifically, it seems that self-esteem ($\beta = -0,17; t = -3,98; p \leq 0,05$) and self-efficacy ($\beta = -0,18; t = -4,26; p \leq 0,05$) predict cynicism. When career decision-making difficulties were entered in the second step of the regression analysis, a statistically significant model was produced ($F_{(9,772)} = 29,54; p = 0,00; \Delta R^2 = 0,15$), which explained 26% of the variance in cynicism. In this model, it seems that self-esteem ($\beta = -0,10; t = -2,43; p \leq 0,05$), self-efficacy ($\beta = -0,08; t = -1,93; p \leq 0,05$), lack of information about the self ($\beta = 0,13; t = 2,18; p \leq 0,05$), inconsistent information due to internal conflict ($\beta = 0,21; t = 4,08; p \leq 0,05$) and inconsistent information due to external conflict ($\beta = 0,16; t = 4,00; p \leq 0,05$) predict cynicism. Finally, entry of social support in the third step of the regression analysis also produced a statistically significant model ($F_{(11,770)} = 25,53; p = 0,00; \Delta R^2 = 0,01$), accounting for 27% of the variance in cynicism. More specifically, it seems that self-efficacy ($\beta = -0,09; t = -2,21; p \leq 0,05$), lack of information about the self ($\beta = 0,14; t = 2,26; p \leq 0,05$), lack of information about the occupations ($\beta = -0,12; t = -1,93; p \leq 0,05$), inconsistent information due to internal conflict ($\beta = 0,21; t = 4,08; p \leq 0,05$), inconsistent information due to external conflict ($\beta = 0,14; t = 3,56; p \leq 0,05$) and parental support ($\beta = 0,10; t = 2,48; p \leq 0,05$) predict cynicism in the final model.

Table 6

Multiple Regression Analysis With Vigour as Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²	ΔR^2
		B	SE	BETA						
1	(Constant)	1,23	0,29		4,25	0,00*	35,31	0,29	0,08	0,08
	Self-esteem	0,37	0,08	0,21	4,73	0,00*				
	Self-efficacy	0,20	0,08	0,11	2,51	0,01*				
2	(Constant)	2,19	0,36		6,08	0,00*	11,60	0,35	0,12	0,04
	Self-esteem	0,32	0,08	0,18	4,13	0,00*				
	Self-efficacy	0,13	0,08	0,07	1,68	0,09				
	Lack of info about the DM process	-0,06	0,03	-0,10	-1,8	0,07				
	Lack of info about the self	0,05	0,04	0,07	1,05	0,30				
	Lack of info about the occupations	-0,02	0,04	-0,04	-0,57	0,57				
	Lack of info about ways of obtaining info	-0,03	0,04	-0,05	-0,80	0,43				
	Inconsistent info due to unreliable info	0,03	0,04	0,05	0,85	0,40				
	Inconsistent info due to internal conflict	-0,12	0,04	-0,16	-2,90	0,00*				
	Inconsistent info due to external conflict	0,02	0,03	0,03	0,79	0,43				
3	(Constant)	2,50	0,39		6,43	0,00*	10,49	0,36	0,13	0,01
	Self-esteem	0,27	0,08	0,15	3,42	0,00*				
	Self-efficacy	0,16	0,08	0,09	2,02	0,04*				
	Lack of info about the DM process	-0,05	0,03	-0,09	-1,59	0,11				
	Lack of info about the self	0,04	0,04	0,07	1,01	0,32				
	Lack of info about the occupations	-0,02	0,04	-0,03	-0,43	0,67				
	Lack of info about ways of obtaining info	-0,03	0,04	-0,06	-0,89	0,37				
	Inconsistent info due to unreliable info	0,03	0,04	0,05	0,77	0,44				
	Inconsistent info due to internal conflict	-0,12	0,04	-0,17	-2,95	0,00*				
	Inconsistent info due to external conflict	0,03	0,03	0,05	1,17	0,24				
	Parental support	-0,14	0,05	-0,12	-2,72	0,01*				
General support	0,03	0,06	0,02	0,40	0,69					

* Statistically significant $p \leq 0,05$

Table 6 summarises the regression analysis, with core self-evaluation traits, career decision-making difficulties and social support as predictors of vigour. Entry of core self-evaluation traits at the first step of the regression analysis produced a statistically significant model ($F_{(2,779)} = 35,31; p = 0,00$), accounting for approximately 8% of the variance in vigour. More specifically, it seems that self-esteem ($\beta = 0,21; t = 4,73; p \leq 0,05$) and self-efficacy ($\beta = 0,11; t = 2,51; p \leq 0,05$) predict vigour. When career decision-making difficulties were entered in the second step of the regression analysis, a statistically significant model was produced ($F_{(9,772)} = 11,60; p = 0,00; \Delta R^2 = 0,04$), which explained 12% of the variance in vigour. In this model, it seems that self-esteem ($\beta = 0,18; t = 4,13; p \leq 0,05$) and inconsistent information due to internal conflict ($\beta = -0,16; t = -2,90; p \leq 0,05$) predict vigour. Finally, entry of social support in the third step of the regression analysis also produced a statistically significant model ($F_{(11,770)} = 10,49; p = 0,00; \Delta R^2 = 0,01$), accounting for 13% of the variance in vigour. More specifically, it seems that self-esteem ($\beta = 0,15; t = 3,42; p \leq 0,05$), self-efficacy ($\beta = 0,09; t = 2,02; p \leq 0,05$), inconsistent information due to internal conflict ($\beta = -0,17; t = -2,95; p \leq 0,05$) and parental support ($\beta = -0,12; t = -2,72; p \leq 0,05$) predict vigour in the final model.

Table 7

Multiple Regression Analysis With Dedication as Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²	ΔR^2
		B	SE	BETA						
1	(Constant)	4,45	0,05		85,92	0,00*	7,25	0,10	0,01	0,01
	Work experience	0,28	0,10	0,10	2,69	0,01*				
2	(Constant)	1,38	0,27		5,02	0,00*	46,57	0,39	0,15	0,14
	Work experience	0,18	0,10	0,06	1,87	0,06				
	Self-esteem	0,47	0,07	0,27	6,40	0,00*				
	Self-efficacy	0,26	0,07	0,15	3,53	0,00*				
3	(Constant)	3,18	0,33		9,65	0,00*	24,60	0,49	0,24	0,09
	Work experience	0,04	0,09	0,01	0,41	0,68				
	Self-esteem	0,38	0,07	0,22	5,32	0,00*				
	Self-efficacy	0,13	0,07	0,07	1,78	0,77				
	Lack of info about the DM process	-0,04	0,03	-0,07	-1,28	0,20				
	Lack of info about the self	-0,07	0,04	-0,11	-1,71	0,09				
	Lack of info about the occupations	0,01	0,03	0,01	0,01	0,81				
	Lack of info about ways of obtaining info	0,00	0,03	0,01	0,09	0,93				
	Inconsistent info due to unreliable info	0,04	0,04	0,07	1,23	0,22				
	Inconsistent info due to internal conflict	-0,17	0,04	-0,24	-4,53	0,00*				
Inconsistent info due to external conflict	-0,03	0,03	-0,04	-1,03	0,30					
4	(Constant)	3,69	0,35		10,51	0,00*	23,51	0,52	0,27	0,03
	Work experience	0,05	0,09	0,02	0,56	0,58				
	Self-esteem	0,30	0,07	0,17	4,18	0,00*				
	Self-efficacy	0,17	0,07	0,10	2,32	0,02*				
	Lack of info about the DM process	-0,03	0,03	-0,05	-0,92	0,36				
	Lack of info about the self	-0,07	0,04	-0,11	-1,83	0,07				
	Lack of info about the occupations	0,02	0,03	0,03	0,50	0,62				
	Lack of info about ways of obtaining info	-0,00	0,03	-0,00	-0,03	0,97				
	Inconsistent info due to unreliable info	0,04	0,04	0,06	1,10	0,27				

Table 7 continued

Multiple Regression Analysis With Dedication as Dependent Variable

Inconsistent info due to internal conflict	-0,17	0,04	-0,24	-4,63	0,00*
Inconsistent info due to external conflict	-0,01	0,03	-0,02	-0,38	0,70
Parental support	-0,20	0,05	-0,18	-4,31	0,00*
General support	0,01	0,06	0,01	0,23	0,82

* Statistically significant $p \leq 0,05$

Table 7 summarises the regression analysis with work experience, core self-evaluation traits, career decision-making difficulties and social support as predictors of dedication. Entry of work experience at the first step of the regression analysis produced a statistically significant model ($F_{(1,780)} = 7,25$; $p = 0,00$), accounting for approximately 1% of the variance in dedication. More specifically, it seems that work experience ($\beta = 0,10$; $t = 2,69$; $p \leq 0,05$) predicts dedication. Entry of core self-evaluation traits in the second step of the regression analysis produced a statistically significant model ($F_{(3,778)} = 46,57$; $p = 0,00$; $\Delta R^2 = 0,14$), which explained 15% of the variance in dedication. It seems that self-esteem ($\beta = 0,27$; $t = 6,40$; $p \leq 0,05$) and self-efficacy ($\beta = 0,15$; $t = 3,53$; $p \leq 0,05$) predict dedication. When career decision-making difficulties were entered in the third step of the regression analysis, a statistically significant model was produced ($F_{(10,771)} = 24,60$; $p = 0,00$; $\Delta R^2 = 0,09$), which explained 24% of the variance in dedication. In this model, it seems that self-esteem ($\beta = 0,22$; $t = 5,32$; $p \leq 0,05$) and inconsistent information due to internal conflict ($\beta = -0,24$; $t = -4,53$; $p \leq 0,05$) predict dedication. Finally, entry of social support in the fourth step of the regression analysis also produced a statistically significant model ($F_{(12,769)} = 23,51$; $p = 0,00$; $\Delta R^2 = 0,03$), which accounted for 27% of the variance in dedication. More specifically, it seems that self-esteem ($\beta = 0,17$; $t = 4,18$; $p \leq 0,05$), self-efficacy ($\beta = 0,10$; $t = 2,32$; $p \leq 0,05$), inconsistent information due to internal conflict ($\beta = -0,24$; $t = -4,63$; $p \leq 0,05$) and parental support ($\beta = -0,18$; $t = -4,31$; $p \leq 0,05$) predict dedication in the final hypothesis.

The results provide support for Hypothesis 1a, which suggests that students with a higher self-esteem will experience lower levels of exhaustion and cynicism. However, only vigour and dedication were significant predictors. Therefore Hypothesis 1a is partially accepted. Hypothesis 1b is supported by the results which suggest that students with higher levels of self-efficacy will experience lower burnout and higher engagement. Hypothesis 1b is accepted. The results do not provide support for Hypotheses 2a and therefore Hypothesis 2a is rejected. Hypothesis 2b is supported in the results which indicate that students with inconsistent information (due to internal conflict) will experience higher burnout and lower engagement. Hypothesis 2b is partially accepted. The results provide support for Hypothesis 3 which indicated that students with social support (parents support) will experience low burnout and high engagement. Hypothesis 3 was partially accepted.

DISCUSSION

The objectives of this study were to determine whether core self-evaluation traits (self-esteem and self-efficacy), career decision-making difficulties and social support were significant predictors of student burnout and engagement. In South Africa research into student burnout and engagement and its predictors is limited, and therefore this study will add to the body of research work and make students, parents and higher education institutions aware of these predictors and what their possible causes.

Multiple regression analysis was used to determine significant predictors (core self-evaluation traits, career decision-making difficulties and social support) of student burnout and engagement. Self-esteem was not a significant predictor of the two burnout dimensions, but of vigour and dedication. Therefore, students with higher self-esteem will have higher engagement. This is in agreement with the findings of previous studies on the relationship between self-esteem and engagement. Students with lower self-esteem, according to Rui (2008), tend to be disengaged and the level of disengagement is dependent on the contingency of the student's self-worth on academic matters. However, these findings do not correspond to previous findings regarding the relationship between self-esteem and burnout. Lee et al. (2010) indicated that there is a distinct pattern of academic burnout that is related to self-esteem, thus can it be seen that distressed students have the most negative self-esteem, lowest level of academic efficacy and the highest level of emotional exhaustion and cynicism, which is related to burnout. However, students who function well have low levels of emotional exhaustion and cynicism, and high self-esteem (Lee et al., 2010).

The results indicated that self-efficacy was the one core self-evaluation trait that significantly predicted all four dimensions of student burnout and engagement. Self-efficacy had a negative relationship to student burnout and a positive relationship to student engagement. This supports the hypothesis and the findings in the literature that students with higher self-efficacy will have higher student engagement and lower student burnout. It is stated that self-efficacy can be seen as one of the most predictive variables related to student burnout and has a direct negative effect

(Yang, 2004; Yang & Farn, 2005). Therefore students with low self-efficacy can experience different factors such as depression and a narrow vision in solving problems (Bandura, 1977; Yang, 2004). Students with high self-efficacy will experience engagement that can enhance their performance (Bresó et al., 2011) and thus there is less of a chance of their experiencing burnout (Bresó et al., 2011; Yang, 2004).

Career decision-making difficulty has three categories: lack of readiness, lack of information and inconsistent information. Because of the poor validity of the lack of readiness scale, it was not included in the analyses. Therefore the focus was on the decision-making process, which consists of lack of information and inconsistent information. Lack of information comprises four sub-categories (i.e. lack of information about the decision-making process, lack of information about the self, lack of information about occupations and lack of information about ways of obtaining information), and inconsistent information comprises three sub-categories (i.e. unreliable information, internal conflict and external conflict).

With regard to the relationship between career decision-making difficulties and the different variables of student burnout and engagement, the results showed different patterns of relationships. The results indicated that lack of information about the self was significantly related to cynicism, which shows a positive relationship. Students who avoid seeking help in obtaining information about themselves have a low level of independence and self-efficacy (Guay et al., 2006), which indicates that students are more prone to experience burnout (Yang, 2004). Guay et al. (2006) state that students who seek more information about themselves tend to have more self-efficacy and therefore they can be further engaged.

Lack of information about occupations was also significantly related to cynicism and had a negative relationship. Lack of information about occupations can be referred to as lack of information about the variety of career options, which can be seen as different educational and occupational alternatives (Amir & Gati, 2006). According to Guay et al. (2006), students who lack information about occupations tend to experience developmental and chronic indecision, which is related to anxiety and which could lead to burnout (Tien, 2005). According to Albion and Fogarty (2003), athletes who are already familiar with sport or sport-related occupations had

fewer difficulties related to the lack of information about occupations. These authors also indicate that athletes who were in an athlete career and education programme for longer were more engaged in making a career decision (Albion & Fogarty, 2003). According to Guay et al. (2006), students reduce their career indecision by gathering information about occupations.

In the inconsistent information category of career decision-making difficulties were two significant sub-groups. The results indicated that inconsistent information due to internal conflict significantly predicted all the variables of student burnout and engagement. Inconsistent information due to external conflict was significantly associated with cynicism and had a positive relationship. Students with inconsistent information due to internal conflict experience uncertainty because of divergent information. Students who have inadequate information can be inhibited in making a career decision, which can lead to career indecisiveness (Gaffner, 2002), whereas students with a well-defined concept of their career interests are more enlightened about their career decision (McMillan, 2005).

With regard to the relationship between social support and the student burnout and engagement variables, the results showed that parental support significantly predicted all the variables of student burnout and engagement. Parental support had a positive relationship to burnout and a negative relationship to engagement. According to the literature, social support is seen as an important factor that can influence student burnout (Yang, 2004), and is therefore considered as a resource for students to use (Alarcon et al., 2011). According to Breier and Letseka (2008), students who tend to be more successful in their studies are students who are supported by their parents. Support from families, teachers and peers is also significantly associated with student burnout (Yang & Farn, 2005). However, general support had no significant effect on student burnout and engagement.

In South Africa a limited number of research has been done on student burnout and engagement and the predictors thereof. This research study is a contribution to the literature on student burnout and engagement as it adds to the information on possible predictors. The key findings of this study were that self-efficacy, inconsistent information due to internal conflict and parental support significantly predicted student burnout and engagement. Self-esteem predicts

engagement, and lack of information about the self, lack of information about occupations, and inconsistent information due to external conflict predict cynicism which leads to burnout.

Limitations and Recommendations

The limitations of the study should be noted and addressed in future research. Firstly, the limitation was the sampling method, which was a non-probability quota sample. Therefore the results cannot be generalised to the wider population. Secondly, it is important to emphasise that this study used a cross-sectional design where the data were gathered at one point in time. The cross-sectional design does not allow the changing values of the variables over time to be measured, and thus the causality of the relationship between student burnout and engagement and the predictors could not be determined. Thirdly, the research participants were students at only one university, thus the results could not be generalised to all higher education institutions. Results from other universities results may differ from these data. Fourthly, the study population was also homogeneous, and in the sample of 782 students, only 68 were not from the white population group. It is important to take into consideration the multi-cultural nature of South African society, and the results are not necessarily applicable to other language or ethnic groups. Fifthly, the students participated voluntarily and answered questions anonymously. It is possible that students who may have been experiencing burnout may have been less motivated to respond to the survey to avoid painful issues, or that students who were experiencing a low level of burnout may have considered that their participation in the research had little influence and may have chosen not to respond (Lee et al., 2010). The final limitation is that the results were obtained through self-report questionnaires (Salanova et al., 2010). This method can lead to unfairness as individuals' perceptions are being measured and it is complex to differentiate between the construct being measured.

Recommendations can be made for future research. Use of the longitudinal research method will help to obtain more integrated data and reduce the bias of the research. Thus by using a longitudinal design, the causal nature of the relationships between predictors and burnout and engagement can be determined. Previous research has indicated that social support (e.g. families, teachers and peers), other than parental support, can be seen as a predictor of student burnout and engagement. However, specific relationships could be tested to see if support moderates the

relationship between stressors and burnout/engagement (Yang & Farn, 2005). Research into the relationship between career decision-making difficulties and burnout/engagement is very limited in the literature. More specific relationships could therefore be researched to obtain a more define picture of the effect they have on student burnout and engagement.

Recommendations can also be made for students, universities and career counsellors based on the results of this study. The results could assist students and counsellors to become more aware of the predictors (core self-evaluation traits, career decision-making difficulties and social support) of burnout and engagement and their effect on the student's well-being. The core self-evaluation traits of self-esteem and self-efficacy could lead students towards more engagement, and therefore further research is needed to determine which programmes could be developed to enhance self-esteem and self-efficacy to assist students. Yang and Farn (2005) and Law (2007) indicate that modified or newly designed programmes need to be implemented to guide students in preventing and coping with burnout and in identifying the symptoms.

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CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

In this chapter, conclusions regarding the study are presented and discussed in line with the general and specific objectives as indicated in previous chapters. The limitations of the study are discussed and recommendations for the organisation and future research are stated.

3.1 CONCLUSIONS

The general objective of this study was to conceptualise student burnout and student engagement, and to determine significant predictors thereof. Furthermore, the specific objectives were to (1) determine how student burnout and student engagement are conceptualised according to the literature; (2) determine whether core self-evaluation traits (self-esteem and self-efficacy) are significant predictors of student burnout and engagement; (3) determine whether career decision-making difficulties are significant predictors of student burnout and engagement; (4) determine whether social support is a significant predictor of student burnout and engagement; and (5) make recommendations for future research.

The first objective of the research was to conceptualise student burnout and engagement according to the literature. Maslach and Jackson (1981) defined burnout generally as a condition of emotional exhaustion combined with physical and mental exhaustion from work; together with a negative and cynical outlook or attitude towards clients, oneself and one's accomplishments. *Student burnout* can be defined as “students in the learning process because of course stress, course load or other psychological factors cause a state of emotional exhaustion, a tendency of depersonalisation, and a feeling of low personal accomplishment” (Yang & Farn, 2005). According to Schaufeli, Martínez, Pinto, Salanova and Bakker (2002), student burnout consists of two core dimensions, namely exhaustion and cynicism. *Exhaustion* is described as “wearing out, loss of energy, depletion, debilitation, and fatigue” (Maslach, Leiter & Schaufeli,

2008, p. 89). *Cynicism* (or depersonalisation) can be described as losing emotional/cognitive involvement or a negative, detached reaction to work (Maslach et al., 2008).

Student engagement, on the other hand, is described as a persistent, determined, positive affective-motivational state of fulfilment or accomplishment (Maslach et al., 2008). Engagement can be characterised by two core dimensions, namely vigour and dedication. *Vigour* is explained as high levels of energy and mental resilience while working, and willingness to put effort and persistence into one's work, even if it is difficult. *Dedication* refers to a sense of significance, enthusiasm, inspiration and pride in one's work, and a challenge to the individual (Schaufeli, Salanova, González-Roma & Bakker, 2002). Students who experience student engagement will feel more energetic and connected in their studies and therefore will be more involved in their studies (Salanova, Schaufeli, Martínez & Bresò, 2010).

The second objective was to determine whether core self-evaluation traits (self-esteem and self-efficacy) are significant predictors of student burnout and engagement. Self-esteem is not a significant predictor of the two burnout dimensions, but of vigour and dedication. Therefore, students with higher self-esteem will have higher engagement. This corresponds to previous studies on the relationship between self-esteem and engagement. According to Rui (2008), students with a lower self-esteem tend to be disengaged; the level of disengagement is dependent on the contingency of the student's self-worth in academic matters. However, Rui's findings do not correspond to previous findings with regard to the relationship between self-esteem and burnout (e.g. Lee, Plug, Kim, Shin, Lee & Lee, 2010). The results from this project indicated that self-efficacy significantly predicted all four dimensions of student burnout and engagement. Self-efficacy had a negative relationship with student burnout and a positive relationship with student engagement. This supports the hypothesis and previous literature that students with higher self-efficacy will endure higher student engagement and experience lower student burnout (Bresó, Schaufeli & Salanova, 2011; Yang, 2004; Yang & Farn, 2005).

The third objective of the research was to determine whether career decision-making difficulties are significant predictors of student burnout and engagement. The results indicated that lack of information about the self was significantly related to cynicism, which shows a positive relationship with burnout. Students who avoid seeking help to acquire information about

themselves have a low level of independence and self-efficacy (Guay, Ratelle, Senécal, Larose & Deschênes, 2006), so that they are then more likely to experience burnout (Yang, 2004). Guay et al. (2006) stated that students who seek more information about themselves tend to have more self-efficacy and can therefore become further engaged. Lack of information about occupations was also significantly related to cynicism and had a negative relationship with academic achievement. Lack of information about occupations also involves lack of information about the variety of career options, which can be seen as different educational and occupational alternatives (Amir & Gati, 2006). According to Guay et al. (2006), students who lack information about occupations tend to experience developmental problems and chronic indecisiveness, which is related to anxiety and could lead to student burnout (Tien, 2005). According to Albion and Fogarty (2003), athletes who were already familiar with sport or sport-related occupations had fewer difficulties related to lack of information about occupations. They also indicated that athletes who had been longer in an Athlete Career and Education programme were more engaged in making career decisions (Albion & Fogarty, 2003). According to Guay et al. (2006), students reduce their career indecision by gathering information about occupations.

In the inconsistent information category of career decision-making difficulties were two significant subgroups. The results indicated that inconsistent information due to internal conflict significantly predicted all the variables of student burnout and engagement. Inconsistent information due to external conflict was significantly associated with cynicism and had a positive relationship with burnout. Students with inconsistent information due to internal conflict experience uncertainty because of divergent information. Students who have inadequate information can be inhibited in making a career decision, which can lead to career indecisiveness (Gaffner, 2002), whereas students with a well-defined concept of their career interests are more enlightened in their career decisions (McMillan, 2005).

The fourth objective of the study was to determine whether social support is a significant predictor of student burnout and engagement. Social support consists of parental support and general support. Parental support was significantly related to student burnout and engagement ($p \leq 0,05$). Research has indicated that students who are supported by their parents tend to be more successful in their studies (Breier & Letseka, 2008). Yang and Farn (2005) stated that

support from families, teachers and peers can also be associated with student burnout and can be seen as a resource for managing it (Alarcon, Edwards & Menke, 2011). No significant relationship was found between general support and student burnout and engagement.

3.2 LIMITATIONS OF THIS RESEARCH

This study had some limitations that should be taken into consideration. Firstly, in this research a non-probability quota sample was used and therefore the results cannot be generalised to the larger population as they may not represent the broader student population accurately. Not all the participants may experience student burnout and engagement similarly to others and therefore the predictors cannot be generalised to students from other universities.

Secondly, this research study used a cross-sectional design, which means that the data were gathered at one point in time. Because of the design used, the causality of the relationships between the predictors and student burnout and engagement could not be determined.

Another limitation is the fact that the study focused only on a student sample from one university. The predictors of student burnout and engagement could therefore differ between various higher education institutions such as colleges, technicons and other universities. They could also vary between full-time students and students already working in organisations. The results therefore cannot be generalised to all different higher education institutions or to all students in higher education and organisations.

Fourthly, the study population was also racially homogeneous. In the sample of 782 students, the majority of students (approx. 91%) were white; only 68 students were not from the white population group. It is important to take into consideration the multi-cultural society of South Africa (Pienaar & Sieberhagen, 2005) and to realise that the predictors found in this research may not be similar to those pertaining to other ethnic and language groups.

Finally, the last limitation is that the results were obtained through self-reported questionnaires (Salanova et al., 2010). This could indicate an increase in the common method variance problem.

Self-reported questionnaires are a practical method for obtaining meaningful information and can also be a cost-effective means of data collection. However, self-reported questionnaires entail the respondent's perception of the constructs that are being measured and not necessarily of the constructs themselves. It is therefore essential to include an objective measure in future studies to investigate the causal factors of student burnout and engagement.

3.3 RECOMMENDATIONS

3.3.1 Recommendations for practice

Recommendations can be made for students, universities and career counsellors based on the results of this study. Such recommendations could assist students to become more aware of the predictors (core self-evaluation traits, career decision-making difficulties and social support) of student burnout and engagement, and the effect they have on their well-being. The core self-evaluation traits, namely self-esteem and self-efficacy, could lead students to become more engaged and therefore further research is needed to determine which programmes that enhance self-esteem and self-efficacy are available to assist students. Yang and Farn (2005) and Law (2007) indicated that modified or newly designed programmes need to be implemented to guide students in preventing and coping with student burnout and in identifying the symptoms.

From the literature it appears that very little research has been done on career decision-making difficulties and the relationship they have with student burnout and engagement. Therefore more research is urgently needed on this predictor. More research needs to be done to assess whether career guidance has an effect on the predictor of career decision-making difficulties and its relationship to student burnout and engagement. Only 'lack of information' and 'inconsistent information' were used, while the other dimension, lack of readiness, was not included due to its poor validity.

General support, which is one of the dimensions of social support, was not found to have any relationship with student burnout and engagement. It has been indicated in previous literature that social support from families, teachers and peers, other than parents, is related to student

burnout (e.g. Yang & Farn, 2005). Career counselling can be established as a resource to help students to cope with student burnout and lack of engagement. Moreover, future studies need to take into consideration that these aspects may be predictors of student burnout and engagement.

3.3.2 Recommendations for future research

By acknowledging the limitations discussed, future recommendations can be made. The focus of the study was on determining possible predictors of student burnout and engagement. It is recommended that longitudinal research be used to determine a sequence of occurrence and to determine causative factors. Longitudinal research is an observational technique that involves studying the same group of individuals over an extended period of time. Changes in a construct can be evaluated over time through this research design. Although this type of research is difficult and expensive to conduct (Kelly, 2007), it will assist in determining the predictors of student burnout and engagement over a long period of time.

A greater understanding would be achieved of the predictors of student burnout and engagement if future research were to be conducted in a variety of higher education institutions and among a wider variety of students (Morgan & De Bruin, 2010). These higher education institutions would be colleges, technicons and different universities. Participants should also include full-time students and part-time students.

Another valuable area for future research lies in using a more diverse study population. South African society is multi-cultural and it is important to take all of the cultures in the higher education institutions into consideration (Pienaar & Sieberhagen, 2005). Therefore future research should continue to determine what the predictors of student burnout and engagement will be if they are based on a diverse student society.

Lastly, it can be recommended that an objective measure should be included in future research when self-reported questionnaires are used. This objective measure could indicate the causal factors of student burnout and engagement, and more thoroughly describe the predictors of student burnout and student engagement.

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