

# UNIVERSITY OF THE WESTERN CAPE

## Faculty of Community and Health Sciences

### RESEARCH

**Title:** The association between perceived stress, coping styles and personality traits in a sample of Psychology Honours students.

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## Declaration

I declare that the mini-thesis entitled, “ The associations between perceived stress, coping styles and personality traits in a sample of Psychology Honours students”, is my own work. It has not been submitted for any degree or examination at any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Sanche Nel

Signed.....



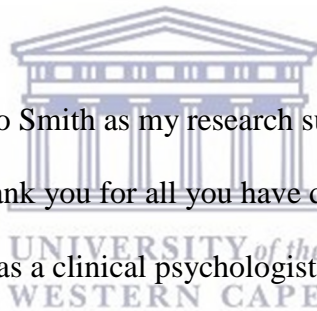
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## **Abstract**

Literature identified Psychology students to be vulnerable to the stress associated with professional postgraduate studies and the nature of multiple processes. Less research has been conducted on Honours students as a cohort. The present study attempted to examine the associations between personality traits, perceived stress and coping styles in a sample of Honours students and post-Honours interns enrolled at a historically disadvantaged university. The present study was a cross-sectional internet survey including four instruments: the Brief COPE questionnaire (coping styles), the Perceived Stress Scale (subjective stress), the Big 5 Personality Survey (BFI-10) (personality traits) and a demographic questionnaire. All participation was voluntary and general principles of ethics were adhered to. The data was analysed using frequencies, correlation matrices, coefficients of determination and regression. Findings indicated medium levels of perceived stress in this sample including contextual factors like gender, age and race. The B.Psych students reported reduced ranges on perceived stress compared to Honours students. Personality profiles indicated the four highest ranked traits (agreeableness, conscientiousness, openness and extraversion) closely banded. Neuroticism was ranked substantially lower in this sample. More adaptive coping styles like (planning, religion, active coping, acceptance etc.) were used than maladaptive coping styles. Associative relationships were indicated between demographic variables and coping, personality traits and perceived stress respectively. Race, Gender, relationship status, registration status and Age was found to correlate significantly with the three core constructs (perceived stress, coping and personality traits). Findings indicated predictive relationships between combinations of coping styles which could significantly predict perceived stress. Maladaptive coping significantly predicted perceived stress controlling for adaptive coping (e.g. emotion-focused coping and problem-focused coping).

# 1. Introduction

## 1.1. Background

The Department of Higher Education and Training in South Africa (HESA) indicated significant challenges in the ability to retain students, as well as produce graduates, predominantly at postgraduate level (HESA, 2014). South Africa follows a 3+1 model which designates a three year undergraduate degree with a further postgraduate year known as the Honours degree (Council on Higher Education, 2014). Pressure and competition to gain entry into the Honours programmes could create high levels of stress and anxiety as intake at this level is selective. Abel and Louw (2009) confirmed that progression into higher degrees is stressful for students.

The discipline of Psychology constitutes a unique scenario since professional training only occurs at the Masters level. Acceptance into a Masters programme in Psychology requires students to have attained Honours degrees in Psychology (Council on Higher Education, 2014). Given the nature of training in Psychology, only a small number of students are selected to participate in Honours programmes whilst even fewer places are available in Masters Programmes, especially clinical psychology programmes (Council on Higher Education, 2014). Thus the stringent reduction in student numbers and successive selection processes consequently increase the stress and competition for selection to this level of training or education.

First year enrolment numbers average around 1500 that are then reduced to a maximum of 40 student selected for Honours, and then to only 6 to 8 selected for Masters on average per programme that clearly indicated a logjam of continuing to higher education levels (Fischer & Scott, 2011; Ntshoe & Selesho, 2012). There is a possibility to do a practicum after qualifying with a Honours degree and following the Registered Counsellor route as per the tiers of professional practice in South African Psychology Health Professions Council of South Africa (Professional Board for Psychology, 2005a). However, this is only available to

students registered in Honours programmes that are accredited as B.Psych equivalent programmes (HPCSA, 2014). Abel and Louw (2009) emphasized that this path is fraught with difficulties. This route is often used as a stepping stone to later continuing studies at a Masters level thus increasing the levels of distress and the importance for successful completion and selection in professional training programmes at higher levels (Mayekiso, Strydom, Jithoo & Katz et al., 2004).

Successfully managing stress and effective coping during Honours level training, has been identified as predictors of subsequent behaviour and performance in successive programmes (Strydom & Mentz, 2010). Kagee and O'Donovan (2011) similarly identified that higher levels of independence, concentration and achievement are required for postgraduate studies or higher degrees in Psychology.

There is a body of research indicating that there are racialized, gendered and demographic patterns to how individuals cope with stress (Baqtayan & Mai, 2012; Chao, 2012; Kausar, 2010; Mudhovozi, 2011). For example, De La Rey (2006) reported that minority (black and coloured) students and female students have been recognised as groups that are particularly at risk for dropping out from post graduate programmes. In addition, literature identified that there are differential patterns to retention and throughput at historically disadvantaged and historically advantaged institutions (Fischer & Scott, 2011; Ntshoe & Selesho, 2014).

### **1.2. Problem statement:**

As mentioned before, literature provides empirical evidence that being a student is stressful. In addition racialised, gendered or socio-economic patterns to the nature, chronicity and intensity of stress experienced, preferred coping styles and personality variables have been reported. Psychology Honours students are considered a vulnerable group, because of the following factors: (a) psychology is one of the most favoured study areas as evidenced by the vast numbers on enrolment (e.g. Kagee & O'Donovan, 2011); (b) the number of places in



honours and further studies are limited, especially in Clinical Psychology (e.g. Abel & Louw, 2009); and (c) the qualification with an Honours degree in Psychology that does not necessarily give the graduates access to a vocation after four years of post-matric studies (e.g. Abel & Louw, 2009; Gerber & Hoelson, 2011); (d) the expectation that graduates will cope more effectively with stress given the skills and knowledge they have obtained after four years of study in Psychology (e.g. Gerber & Hoelson, 2011; McKinzie, Altamura, Burgoon & Bishop, 2006). More concerning is Kagee and O'Donovan's (2011) assertion that there has been less research conducted on Psychology Honours students as a cohort. Given the career or study trajectory and the nature of the discipline, it might erroneously be assumed that these students possess good coping skills and that they are able to navigate the stressors associated with their discipline. Thus there is a gap in the literature on Psychology Honours students as a cohort. More specifically, there exists a need to provide empirical evidence for the nature of the association between stress, coping and personality traits in Psychology Honours students.

### **1.3. Rationale:**

As mentioned before, there are very limited studies on the relationship between stress, coping and personality traits in Psychology cohorts at Honours level within a South African context. The results of the present study provided useful insight into the profile of coping, personality styles and demographics in this cohort that can establish a baseline and provide empirical rather than anecdotal evidence. The results, where significant, could assist in ensuring the better management of stress for Honours students by offering targeted workshops or skills programmes to assist them. As study at this higher level is limited and selective, identifying the variables that could have an impact on retention and throughput could increase the possibility of selecting candidates that would most likely cope with the higher level of learning. Students with more adaptive coping skills would be preferred as they are more likely to cope effectively with the increased stress associated with training at higher levels such as the Masters programmes in Psychology. The results of this study, where significant, could

identify whether there are patterned ways in which students cope relative to demographics or personality variables that in turn can give insight into coping.

The present study provided an avenue in which the mandate provided in the National Development Plan 2030 of facilitating the successful training of highly skilled professionals could be pursued as a strategic priority (National Planning Commission, 2012). The study will also contribute to the identified need to examine the higher education sector by identifying the Honours cohort as a vulnerable group and adding to the literature on this group as identified by Kagee and O'Donovan (2011).

The present study was also aligned with the National Plan for Higher education in which retention and throughput are prioritized in order to ensure a larger pool of eligible students who can proceed to studies at the Masters and Doctoral levels (Council on Higher Education, 2014). The present study was also aligned with the Institutional Operational Plan of the identified university in which the student experience, as well as retention and throughput have been prioritized as strategic goals. Thus the study begins to contribute to the realization of these strategic goals, through its focus on this vulnerable group of students.

## **2. Literature review**

### **2.1. Stress**

Research evidence suggests that stress is very prevalent and pervasive in university students (Al-Dubai, Al-Naggar, Alshagga & Rampal, 2011; Chao, 2012; Eisenbarth, 2012; Kausar, 2010; Mudhovozi, 2011; Nelson, Oliver, Koch & Buckler, 2001; Yew, Lim, Haw & Gan, 2015). The concept of stress is multidimensional and refers to an internal or external event in relation to the individual and his or her environment which causes various responses in the body and mind (Lazarus, 1990; 1993; 2006). Lazarus and Folkman's (1984; 1987) transactional construct incorporates appraisal, coping and stress to depict the way in which individuals respond to psychologically disagreeable experiences and environments. Stress is

experienced when the individual cannot adapt to situational demands (Yew et al., 2015). The experience of stress differs greatly because individuals experience stress subjectively with some individuals not even recognising that they are experiencing stress (Baqutayan & Mai, 2012). However, a certain measure of eustress or good stress has been established in the early 90s as essential for life and amassing wisdom and knowledge (Kampfe, Mitchell, Boyless & Sauers, 1995; Lazarus, 1990; 1993). An excess of distress or bad stress, especially chronic stress, is proven to impact an individual's overall level of functioning and efficacy negatively including physiological, psychological, as well as cognitive fallouts (Baqutayan & Mai, 2012; Chao, 2012; Mudhovozi, 2011; Yew et al., 2015). Perceived stress refers to what and how an individual appraises the situation and experience as stressful (Chao, 2012).

Several sources of stress have been identified in students. This includes academic workload and exams (e.g. Chao, 2012; Gerber & Hoelson, 2011; Kausar, 2010; Mudhovozi, 2011); thesis writing (e.g. Nelson et al., 2001); changes in eating and sleeping patterns (e.g. Boyle, 2014; Kausar, 2010), changes in expected performance, competitiveness for high grades, belief in ability (e.g. Baqutayan & Mai, 2012; Devenport & Lane, 2006), level of self-esteem (e.g. Eisenbarth, 2012), social change and financial burdens (e.g. Robotham & Julian, 2006). Personal stressors experienced by students include death, family illness, and conflict with siblings and parents, struggles with intimate partners and friends, and lack of support (Chao, 2012; Pillay & Bundhoo, 2011; Pillay & Ngcobo, 2010). One in ten students reportedly experience suicide ideation and a high prevalence of drug and alcohol use exists in student populations (Dearing, Maddux & Tangney, 2005; Pillay & Ngcobo, 2010). Mahmoud, Staten, Hall and Lennie (2012) reported that student cohorts also experience a developmental vulnerability to stress. More than seventy percent (70%) of students in higher education reported impaired levels of functioning as a result of stress (Myers, Sweeny, Popick, Wesley, Bordfeld & Fingerhut, 2012; El-Ghoroury, Galper, Sawaqdeh & Bufka, 2011). Significant differences in the nature and type of stress experienced between groups based on ethnicity,

gender and socio-economic status were reported. For example, discrimination, rural secondary schooling, language proficiency, perceived lack of support, financial and accommodation issues, HIV & AIDS, death of a family member and substance use were identified as the main sources of stress (Malefo, 2000; Pillay & Ngcobo, 2010; Seabi, Seedat, Khoza-Shangase & Sullivan, 2014).

## **2.2. Coping style**

Coping strategies refers to specific endeavours or tools; behavioural, emotional and cognitive processes in response to a stressor or threat (Al-Dubai et al., 2011; Carver & Scheier, 1983; Carver, Scheier & Weintraub, 1989). Coping is referred to the individual's appraisal of the perceived stress and the ability to deal with the source of stress (stressor) as a way to overcome, endure or decrease the experience and manage the related emotions in response to the stress (Carver & Connor-Smith, 2010; Lazarus & Folkman, 1984; 1987)

Lazarus and Folkman (1984; 1987) proposed two styles of coping, namely active and maladaptive coping. Active coping refers to strategies such as planning, positive re-framing, seeking emotional and social support, and active coping, humour, turning to religion and acceptance (Boyle, 2014; Mahmoud et al., 2012). Maladaptive coping styles include avoidant type strategies like denial, self-distraction, to detaching emotionally or behaviourally, self-blame and substance use (Boyle, 2014; Carver et al., 1989; Mahmoud et al., 2012). The subjective experience of stress and the feeling of not coping effectively can elicit feelings of helplessness, hopelessness, anxiety and an ominous sense of loss (Baqtayan & Mai, 2012; Mahmoud et al., 2012; Mudhovozi, 2011). It has been established that using maladaptive coping strategies in itself can be a relating factor of increased stress in students of higher education (Myers et al., 2012).

Carver et al. (1989) expounded this theoretical formulation by postulating three main approaches to coping with stress, namely emotion-, problem- and avoidance focused coping

strategies. Problem-focused coping strategies imply making changes to the environment in order to ameliorate stress and include active or adaptive coping styles. Emotion-focused coping entails changing the meaning of the experience to alleviate emotions and includes some adaptive, but more maladaptive coping styles. Avoidance orientated coping refers to the avoidance of situations, using denial to exclude the stress and losing hope. Research also indicates that coping differs greatly between individuals (Krypel & Henderson-King, 2010; Zafar & Mubashir, 2012). Below is a brief exposition of the most commonly reported individual and group-based differences in coping.

### **2.3. Differences in coping**

#### **2.3.1. Gender**

Research corroborates significant gender differences in coping styles (Boyle, 2014; Lawrence, Ashford & Dent, 2006). Gender-based differences were attributed to stereotypical socialised gender roles in which women tend to express emotion and use more emotion-focused coping styles and social support while men used more physical and problem-focused coping styles in general (Mahmoud et al., 2012; Tamres, Janicki & Helgeson, 2002). Men are stereotypically expected to deal with a problem or stressor head-on or deny that it is there compared to females who typically respond more emotionally to a stressor or discusses the problems extensively (Tamres et al., 2002). Moreover, specifically the subtypes of denial and use of emotional support confirm the stereotypical socialised gender roles (Sheu & Sedlack, 2014; Zafar & Mubashir, 2012). Females are more accepting of help-seeking behaviour than their counterparts and the question of whether they experience emotions more intensely versus expressing more emotions as innate or learnt behaviour seem to be unclear (Tamres et al., 2002). Devenport and Lane (2006) reported that females prefer distress-reducing coping styles compared to males that preferred active behavioural, often high risk coping styles. Females tend to use more avoidant and emotional coping strategies compared to males (Al-Dubai et al., 2002). Sheu and Sedlacek (2014) reported that females experienced more

psychological distress and anxiety and were more likely to seek help compared to their male counterparts. Similar results were reported by Mahmoud et al. (2012) adding that the types of coping styles preferred by females (emotion focused coping styles) are typically interpreted as ineffectual. The biological theory of “fight or flight” postulated by Cannon (1932) refers more to how men responded to threats compared to women who “tend and befriend” .Thus it is unclear if gender differences in coping and experiencing distress are biological or learnt behaviour, but that differences were unmistakable is apparent (Sheu & Sedlack, 2014; Tamres et al., 2002).

Research has also reported significant differences in stress, coping and academic success in university students (e.g. McKinzie et al., 2006). Female students reportedly experienced significantly higher levels of stress than male students (Lawrence et al., 2006; McKinzie et al., 2006). Lawrence et al. (2006) also reported that female students take education more seriously and are generally better prepared, organised, cooperative and conscientious compared to males who seem to be more competitive, overconfident, disruptive and less attentive. Males tend to have a higher self-esteem and ability to detach from emotions thus confirming other research in the field regarding choice of coping style as more avoidant and use of problems solving compared to females who use more emotion-focused coping styles (Tamres et al., 2002; Zafar & Mubashir, 2012). Females are reported to be more prone to symptoms of anxiety and depression not directly caused by distress, but associated with the individual’s perception of and response to the distress (Jordaan, Spangenberg, Watson & Fouche et al., 2007; Mahmoud et al., 2012). Males are reported to be more work focused where females often have other dual responsibilities whilst still having to focus on studies or work that possibly increase their levels of distress (Tamres et al., 2002). In a study by Nelson et al., (2001) female students were more likely to be successful in their coursework although

they experienced more stress and employed greater support from their close friends, family and help sources.

Inconsistent findings were reported for gender-based differences. Some research found female students to overall use more variations of coping styles than male students and less likely to use avoidant coping as men did (El-Ghoroury et al., 2012; Lenz, 2010; Myers et al., 2012; Sheu & Sedlacek, 2014). Other research has found no significant differences in coping strategies between genders (Kariv & Heiman, 2003; Lindqvist, Carlsson & Sjoden, 2000; Zafar & Mubashir, 2012).

### **2.3.2. Age and relationship status**

Malefo (2000) established that older students perceived certain situations as significantly less stressful than younger students. Younger university students (ages 18 to 24) are seen to be in a transitional phase of development that has a negative impact on the perception of stress and coping styles employed (Lawrence et al., 2006). Mahmoud et al. (2012) corroborated this finding and attributed the age-based differences to older students possessing greater capacity to engage in reported personal contemplation and independence that are required in higher education.

Overall coping styles also indicated more adaptive choices in older students attributed to their increased ability to deal with stressors (Kausar, 2010; Malefo, 2000; Pillay & Ngcobo, 2010). These age-based differences were further supported in overall academic performance as older students generally performed better at university (e.g. Kariv & Heiman, 2003). Similarly, Pillay and Ngcobo (2010) reported that failing of tests were significantly more prevalent in younger students.

Significant differences in stress experienced and coping were also reported based on relationship status. For example, married students or students in a committed relationship reported experiencing less stress than single students (Malefo, 2000). Myers et al. (2012)

corroborated relationship-based differences in stress and coping ostensibly due to relationships acting as a form of social support that seems to act as a buffer for stress.

### **2.3.3. Personality traits**

The relationship between personality traits and how stress is perceived have a direct influence on the type of coping strategy employed, as is evident in existing research (Abel, 2002; Bartley & Roesch, 2011; DeLongis & Holtzman, 2005; Eksi, 2010; McCrae & Costa, 1986, Mudhovozi, 2011). Personality and coping influence both interactive and independent measures of mental and physical health (Carver & Connor-Smith, 2010). Individuals may be more or less reactive to stress according to their personality traits (Bartley & Roesch, 2010). Carver and Scheier (1994) emphasise that the transactional model is associated with situational coping and dispositional or trait coping styles which comprise of personality traits or habitual ways of coping with stress (Eksi, 2010). Research on coping and personality variables include hardiness, self-efficacy and self-esteem (Eksi, 2010). Most of this research has focused on only one aspect of the big five personality traits, namely neuroticism as a trait in relation to stress and coping response (McCrae & Costa, 1986; McWilliams, Cox & Enns, 2003). There is a growing literature on the association of coping strategies and personality traits, because the five factor model is considered to be comprehensive in identifying and describing personality traits (DeLongis & Holtzman, 2005; Eksi, 2010). According to McCrae and Costa (2003) the five factors include neuroticism, extraversion, openness, agreeableness and conscientiousness and are derived from an individual's characteristics that include interpersonal, emotional, experiential, attitudinal and motivational styles.

McCrae and Costa (1986) reported neuroticism being associated with avoidance, self-blame withdrawal and passive coping styles whereas extraversion, agreeableness and openness was correlated with planning, rational action, positive thinking and restraint. . Carver and Connor-Smith (2010) reported similar results with neuroticism linked to disengagement types of coping styles like avoidance and openness, agreeableness,



extraversion and conscientiousness with more engaged types of coping styles like seeking support, reframing and acceptance. DeLongis and Holtzman (2005) reported neuroticism as an indicator for poor coping choices which could lead to exacerbating stress, further leading to choices of less problem solving and more confrontation, avoidance and self-blame. McWilliams et al. (2003) stated that maladaptive coping is significantly correlated with less adaptive personality traits like neuroticism and psychological distress (i.e. depression and anxiety) and the reverse for adaptive coping is significantly correlated with less adaptive personality traits like extraversion and openness to experience with more task-orientated coping. Extraversion was found to be associated with active and effective coping styles like positive reframing (DeLongis & Holtzman, 2005). Other research found that conscientiousness was positively associated with problem solving and neuroticism with avoidance coping (Eksi, 2010). McCrae and Costa (1986) reported that openness as a trait was associated with humour as a coping style. Some results consistently indicated women scoring higher than men in neuroticism, agreeableness and openness to emotions and men with assertiveness and openness to ideas (Eksi, 2010; McCrae & Costa 1986). Eksi (2010) reported high correlations between conscientiousness and use of religion, optimism and extraversion with seeking social and emotional support as predicted in both genders. Thalmayer, Saucier & Eigenhuis et al. (2011) found that the best predictor of future academic performance, psychological and life outcomes were correlated with conscientiousness as a big five personality dimension. Personality structure is influenced by other factors including culture, language and more (Branco e Silva & Laher, 2012).

Busato, Prins, Elshout and Hamaker (2000) reported consistent, positive associations for conscientiousness with academic success in a sample of college students including Psychology majors. Chamorro-Premuzic and Furnham (2003) reported that the Five personality factors, particularly Neuroticism and Conscientiousness, were found to predict

overall final exam marks over and above several academic predictors, accounting for more than 10% of unique variance in overall exam marks. These authors suggested that Neuroticism may impair academic performance, while Conscientiousness may lead to higher academic achievement. Similarly, a meta-analysis showed Conscientiousness, in particular, to be most strongly and consistently associated with academic success. In addition, Openness to Experience was sometimes positively associated with scholastic achievement, whereas Extraversion was sometimes negatively related to the same criterion, although the empirical evidence regarding these latter two dimensions was somewhat mixed (O'Connor & Paunonen, 2007). Komarraju, Karau and Schmeck (2009) reported that the Big 5 personality traits were predictive of overall performance. For example, conscientiousness and openness explained 17% of the variance in intrinsic motivation; conscientiousness and extraversion explained 13% of the variance in extrinsic motivation; and conscientiousness and agreeableness explained 11% of the variance in motivation. Further, four personality traits (conscientiousness, openness, neuroticism, and agreeableness) explained 14% of the variance in GPA; and intrinsic motivation to accomplish things explained 5% of the variance in GPA. Finally, conscientiousness emerged as a partial mediator of the relationship between intrinsic motivation to accomplish and GPA. All these studies included undergraduate Psychology cohorts, but did not isolate the analysis per discipline. However, these samples included fourth year students that would be the equivalent of Honours students.

Although there is no specific research found on preferable personality traits of psychology students it can be hypothesised that the following would be desirable in the profession. Of the Big Five traits, Conscientiousness is regarded as an individual's inclination to be well organised, diligent, reliable, and thorough, achievement orientated and high levels of self-regulation (Bartley & Roesch, 2011). Willpower, taking initiative, competence, dutifulness, order and deliberation are all characteristics of this personality trait (Costa, 1996;

Costa, McCrae & Dye, 1991). This trait would be the most desirable as previous research indicate Conscientiousness as a predictor of academic success (Thalmayer et al., 2011) and a trait that is a coping mediator against stress (Bartley & Roesch, 2011). The profession of psychology is a challenging one and as mentioned previously (Abel & Louw, 2009), there are added stressors to the path of study with vocational outcome limitations that this trait could ameliorate. Being proactive in managing with and how perceived stress is objectively appraised effects more effective coping and ability to perform better academically in higher education (Kagee & O'Donovan, 2011; Kariv & Heiman, 2003; Strydom & Mentz, 2010). Sutin, Costa, Miech and Eaton (2009) support Conscientiousness as being the most desirable trait to anticipate intrinsic and extrinsic occupational success. According to Judge, Higgins, Thoresen and Barrick (1999) high levels of Conscientiousness are the most relevant to intrinsic career success and low Neuroticism, low Agreeableness, high Extraversion and high Conscientiousness was associated with extrinsic occupational success. Agreeableness as a trait with facets including, altruism, trust, compliance, straightforwardness, modest and tender-minded (Costa, 1996) would be highly preferable in the profession of psychology as well because of the rapport building and therapeutic relationship or interpersonal importance in the discipline. The trait of Extraversion with aspects of warmth, assertiveness, positive emotions, sociability and eagerness (Costa, 1996) would be a trait desirable to the discipline of psychology as well because of the interpersonal nature of the work. Although another study reports that high levels of Extraversion can lead to distraction and impulsiveness and may be less effective as a predictor of academic success (Chamorro-Premuzic & Furnham, 2003). Openness to experiences has also been shown to be a predictor of academic success in students (Chamorro-Premuzic & Furnham, 2003) and would be highly desirable as a trait in the psychology profession due to the difficulties and workload previously mentioned at postgraduate level of education. Bouchard (2003) indicate that Openness to experience is necessary for trying out new approaches and problem solving skills in trying to cope.

Neuroticism is well known to be the least desirable trait because of lack of confidence, anxiety, negativity and increased levels of stress experienced as well as being an indicator of less probable academic attainment (Chamorro-Premuzic & Furnham, 2003). Neuroticism is positively correlated with avoidance and distancing in coping styles in both men and women (Bouchard, 2003). Allik and McCrae (2004) as cited in Laher et al. (2012) report international findings from 36 cultures that Black South Africans as well as Africans and Europeans have lower scores on Extraversion, Openness to experience and higher scores in Agreeableness as universal traits. Furthermore differences in African personality structures compared to the westernized five factor model of personality (McCrae & Costa, 1986) was suggested as culture is influenced by differences in language, religion and history and an imperative consideration in the South African context (Laher et al., 2012). However, what emerges clearly from the literature is that a specific and systematic exploration of personality traits in local psychology samples remains a focus of further research.

#### **2.3.4. Culture and race**

Cultural views and beliefs significantly influence the perception of stress and coping (Mudhovozi, 2011; Myers et al., 2010; Sheu & Sedlacek, 2014; Yew et al., 2015). In the South African multicultural contextual influences on the experience and perception of stress, as well as coping has been identified. Cultured, racialized and gendered factors might influence the nature, chronicity and intensity of stressors. Black students reportedly experience problems with financial aid, quality of previous level of secondary education, language disadvantages, access to support and resources, ability to adjust to university life significantly more frequently than their White counterparts in the student population (Malefo, 2000; Mdepa & Tshiwula, 2012; Seabi et al., 2014; Sommer & Dumont, 2011). The racialized profile of students at Historically Disadvantaged Universities (HDUs), like UWC, extended to significant differences in institutional cultures and performance as mentioned earlier (Fischer & Scott, 2011; Sommer & Dumont, 2011). In addition, HDUs are often

under-resourced that limits the nature and quality of support that can be provided to students (Seabi et al., 2014).

Significant differences in preferred coping styles have also been reported due to cultural/ethnic differences and influences (Kausar, 2010; Myers et al., 2010; Seabi et al., 2014; Yew et al., 2015). Ethnic minorities were more prone to turn to spirituality and social support in order to cope (El-Ghoroury et al., 2012; Sheu & Sedlacek, 2014). El-Ghoroury et al. (2012) reported that ethnic/racial minority psychology graduate students generally face similar stressors than White students, but also have a somewhat different pattern of stress. Their research also found that African American students used less alcohol as a coping style compared to White students.

Research and hypothesis of Eastern versus Western cultural differences (e.g. individualism vs. collectivism respectively) also influence how different races and cultures experience stress and choose coping styles (Sheu & Sedlacek, 2014; Yew et al., 2015). Research found that Asian-American students underutilized help resources when stressed thus indicating that their attitudes towards seeking support were less positive compared to their White counterparts. More pessimism and avoidance and social withdrawal coping strategies with higher levels of depression and psychological symptoms were evident compared to the Caucasian students. Other ethnic groups used more passive and acceptance coping styles like distancing and avoidance and turning to religion to cope (Sheu & Sedlacek, 2014). Furthermore African American and Caucasian students used more task- and emotion-orientated coping styles compared to the Asian American students who used more avoidant coping styles (Lenz, 2010).

Variations in academic performance were reported to be linked to contextual variables and cognitive elements in especially Black female students studying at White Universities (Malefo, 2000). Educational backgrounds, as well as occupational and social status of parents, expectation to perform and family environments were all factors that were found to contribute

to stress, coping styles and academic performance (Malefo, 2000). Furthermore difficult person-environment fit could be contributing to the added stress experienced by these students and how they cope. Higher drop-out and low qualification rates were linked to adjustment to the institution and financial problems in South Africa's graduation rates being lowest in the world (DoE, 2005). In addition Sommer and Dumont (2011) confirmed various other research findings that psychosocial and contextual factors are pertinent in predicting academic success and coping with stress.

Financial, academic and personal problems and how utilisation of help resources is accessed differ greatly in various ethnicities, cultures and genders (El-Ghoroury et al., 2012; Kausar, 2010; Malefo, 2000; Sheu & Shedlacek, 2014). Myers et al. (2012) reported that significant additional cultural and racial stressors affect academic persistence and level of perceived stress, specifically racial prejudice, discrimination, isolation and diverse cultural experiences. Furthermore higher rates of depression and burnout were evident in this group making cultural and racial differences important to consider.

The differential patterns in student success and academic performance are believed to be related to the cultured and racial patterns in stress and coping, but very little research has been done on the psychology graduate cohort (El-Ghoroury et al., 2012; Lenz, 2010; Myers et al., 2010). Louw and Machedmedze (2015) highlighted the characteristics of the South African psychology population as 85% female and 59% white, mostly Afrikaans- and English speaking individuals. Within the group of psychology graduate students, men made up 27% and women 73%. These authors also reported the racial profile to include 33% Black, 7% Coloured, 7% Indian or Asian and 53% White which was similar to the HPCSA statistics (HPCSA, 2014). According to Cooper and Nicholas (2012) Black psychologists (i.e., Black, Coloured & Asian psychologists) constitute only 25% of professionals registered with the Professional Board of Psychology. These factors mentioned above is thought to be a contributor to the significant under-representation of successful Black students in Higher

Education in general and especially at postgraduate levels (Fischer & Scott, 2011; Myers et al., 2012; Seabi et al., 2014).

#### **2.4. Student populations**

Research on coping in student populations focused on investigating coping in the undergraduate student population (Carver et al., 1989; Devenport & Lane, 2006; Edwards et al., 2014; Kausar, 2010; Lawrence, Ashford & Dent, 2006; Malefo, 2000; Mudhovozi, 2011; Pillay & Bundhoo, 2011; Pillay & Ngcobo, 2010). Research on postgraduate samples has been limited with the core findings reflecting higher stress levels and use of more adaptive coping like emotional and social support, cognitive restructuring, acceptance, religion and venting (e.g. Boyle, 2014; McKinzie et al., 2006). Maladaptive coping styles like drinking, sleeping and constantly watching television were also employed especially if there were low social support (Chao, 2012). The exploration of coping in postgraduate samples has been recommended as a clear focus for further research because of the reported increased level of stress, workload and expectations academically and the known implications on health factors (Al-Dubai et al., 2011; Kausar, 2010; Yew et al., 2015).

As mentioned before students enrolled for the honours degree in Psychology, as a cohort, is subject to numerous stressors that are typical of the discipline (Abel & Louw, 2009). Besides the increased level of stress and academic workload there are other challenges associated with very stringent selection processes, employment opportunities and vocational issues, as well as clear gendered and racial patterns to various aspects of the professional reality (Edwards et al., 2014; Jordaan et al., 2007; Mayekiso et al., 2004). Even though it has been theorised that individuals in the field of psychology maintain a better level of functioning in relation to physical and mental health, patterns and experiences of stress and coping styles that are racialized and gendered are evident (Gerber & Hoelson, 2011; Kuyken, Peters, Power & Lavender, 2003). In addition, they are often expected to possess more adaptive coping styles and to have a reduced need for support than their counterparts in other

disciplines based on the nature of the discipline (Boyle, 2014; Gerber & Hoelson, 2011; Jordaan et al., 2007; Nelson et al., 2001). Contrary to this expectation, high levels of depressive symptomology has been reported in psychology students across study levels and in qualified professionals that was attributed to the added stressors and complex milieus (e.g. Gerber & Hoelson, 2011). Furthermore, Jordaan et al. (2007) reported diverse coping styles in this population that contradicts the assumption that all psychology students and practitioners were more likely to use adaptive coping skills. These studies focused on undergraduate, masters and doctoral levels, but did not explicitly examine Honours students. Thus a more systematic exploration of the profile of coping styles, stress and personality traits in the Honours cohort remains a focus of further research.

This brief review of literature has underscored that psychology students constitute a vulnerable population. The general lack of research on Honours students in general and Honours Psychology in particular, has been identified as a population needing further research. According to Louw and Machedze (2015) the psychology honours level of education comprises 24% of the higher education population and psychology masters or doctoral students 18.1 %. Additionally, the intersection of numerous variables already identified as contributing to significant differences in stress and coping result in patterns that must be explored systematically in this cohort. In addition, historical influences impact the academic landscape in South Africa such that there are systematic differences between historically advantaged and historically disadvantaged institutions. Thus the present study attempted to address these gaps by conducting a study on the associations between personality traits, coping styles and perceived stress with a sample of Psychology Honours students at a historically disadvantaged university.



## **2.5. Theoretical Framework:**

Transactional theory assimilates appraisal, coping theory and stress in order to construct the way in which individuals respond to and cope with stressful experiences and milieus (Lazarus & Folkman, 1987). The emotional reaction to stress refers to assessment, coping, the sequence of action or reaction including the significance of the relationship between the individual and the environment (Lazarus, 2006). The relationship denotes the manner the person and environment interacts in the course of stressful periods and whether the individual perceives the environment as hostile or harmful. Each individual appraises a stressful incident subjectively dependent on different personal contextual frames of reference. These include intellectual, motivational and relational processes (Lazarus, 2006), as well as enduring personality traits that inform individual thoughts; feelings and behaviour and impact on how they experience their environment and themselves within the world (Branco e Silva & Laher, 2012) and subsequently informs their emotive response to the situation or event. The principal process refers to behavioural and cognitive efforts to cope with the stress in either a problem solving or emotional way (Lazarus & Folkman, 1984; 1987). They further postulate that the secondary process includes considerations of self-efficacy in the ability to manage the stress and their ability to cope. The choice of coping dimension is either adaptive or maladaptive and includes emotion-, task- and avoidant orientated coping styles.

The framework gives a clear cognitive-relational understanding of how an individual evaluates stress and subsequently employ cognitive and behavioural efforts to cope with the stress (Lazarus & Folkman, 1994; Peacock, Wong & Reker, 1993). Contextual factors like age, gender, personality traits, ethnicity and social factors are clearly influential in how stress is perceived and what type of coping strategies are employed as cited earlier. Additional stressful situations are also considered in this transactional framework as higher levels of stress are proven to cause more distress and lessen effectiveness in coping. Studies and specifically psychology honours level studies with the context specific stressors impact how

all these factors interplay the transactional framework of how stress is appraised and responded to. Thus this framework captures this process and provides a meaningful way to measure all three constructs (stress, coping and personality traits) included in the present study.

### **3. Methodology**

#### **3.1. Aim of the study:**

The aim of the study was to determine the relationship between coping styles, stress and personality traits in a sample of Psychology Honours students.

#### **3.2. Objectives of the study:**

- To determine the extent of stress experienced by Psychology Honours students.
- To determine the profile of personality traits in a sample of Psychology Honours students.
- To determine the reported coping styles of Psychology Honours students
- To determine if there are significant associations between demographic variables and stress, coping styles and personality traits in a sample of Honours students in Psychology.

#### **3.3. Research setting:**

The setting for the present study was a Department of Psychology at a Historically Disadvantaged University (HDU). Mdepa and Tshiwula (2012) identified that HDUs came about as a vehicle for racial segregation enforced by the Apartheid regime. HDUs were designed to provide education to underprivileged students from rural areas (HESA, 2014). HDUs are also reported to face challenges that differ from those of historically advantaged universities including insufficient funding to support the needs of students (DHET, 2102). Hoffman and Julie (2012) reported that the socio-demographic profile of students at historically disadvantaged universities also leads to unique challenges when transitioning from undergraduate to postgraduate studies.

A specific historically disadvantaged higher education institution was selected, due to its unique location, as the only historically disadvantaged institution that did not merge with another institution post-Apartheid (Council on Higher Education, 2014), and its categorisation as a research intensive institution. It is thus the only such institution, with continued resource constriction, that competes at the level of a research intensive institution, alongside other historically advantaged institutions (Hoffman & Julie, 2012). The majority of the population registered at this institution includes Black and Coloured students (Training, 2012). As such, using this institution as the setting for the present study made it possible to study a sample that is more aligned with the national targets for higher education.

The identified university offers a Honours programme in Psychology with an approximate intake of 40 students per year (Kamaloodien, Adam, Ahmed, Bawa, Davids, Marks, & Tjelele, 2012). The programme is also accredited as a B.Psych equivalent programme that means that graduates are eligible to complete a practicum that would lead to registration as a professional counsellor with the Health Professions Council of South Africa (HPCSA) (Professional Board for Psychology, 2005a).

### **3.4. Population & Sample:**

The study focused on students in the Psychology Honours programme and B.Psych equivalence practicum at the identified university. The sampling frame consisted of all students registered in the Honours programme for the current academic year (n=45), part-time and full-time, as well as Honours graduates registered for the extended Honours or B.Psych equivalent practicum (n=35). Thus the total sampling frame included 77 potential participants.

The present study used probability sampling which meant that every eligible student had an equal opportunity to participate in the study and was invited to participate (Bryman, 2012). Probability samples are assumed to be representative of the populations from which they are drawn (Terre Blanche, Durrheim & Painter, 2006). It was foreseen that the process of determining participation would be random thus it meant that the study incorporated a simple

random sample (Fowler, 2009). The final sample was comprised of the students who voluntarily elected to participate.

### **3.5. Research Design:**

This project utilised survey research as the design. Surveys are suitable for assembling information about attitudes and perceptions and can be administered easily (Babbie, 2011). The survey was self-administered which is deemed suitable for a sample of professionals, given ease of access to more of the population (Nulty, 2008). This design was cross-sectional in nature as it was an observation and measurement of the participants or specific cohorts at a particular time with no intention of follow up (Evans & Mathur, 2005). Thus the cross-sectional nature of the survey in the present study represented a “snapshot” of the current perceptions of the participants (Bless, Higson-Smith & Kagee, 2006).

The mode of administration was internet-based or online, and was advantageous in offering the participants the opportunity to complete the questionnaire in their own time, also easily accessing a substantially increased number of participants thus saving administration time and costs (Azar, 2000). Given the education at postgraduate level of the sample and student status, it was anticipated that participants were highly likely to have Internet access (Fricker & Schonlau, 2002). It was deemed an appropriate method of administration for postgraduate students as they have access to email and internet connections on campus e-mails. Online research also has the added benefit of anonymity (Robson, 2011).

Weigold, Weigold and Russell (2013) reported that online surveys have a considerably lower response rate than its’ pen-and-paper counterparts, but take less time to complete. Babbie (2011) underscored that there is no consensus on what constitutes an acceptable response rate for surveys. Nulty (2008) reported that the response rate for online surveys range between 20 – 47% with an average of 33% that is comparable to other modes of administration. Babbie (2011) recommended that a response rate of 50% is appropriate for effective data analysis. It is recommended to use incentives to increase the response rate of

surveys (Fricker & Schonlau, 2002). Three techniques were used in the present study namely comprehensive sampling frames, incentives and repeated mailing.

A list of preferred emails of the eligible students was requested by the researcher from the faculty, to prevent scenarios of students who do not access university accounts regularly. In this way, the sampling frame was more complete or comprehensive as it was augmented to include official university e-mail accounts and preferred e-mail accounts used in regular communication with students by the academic department. The Survey Monkey website offers the option to send out emails to the preferred personal and university-generated accounts.

Incentives were used to increase the response rate. In the present study, the incentive offered to potential participants was the opportunity to be entered into a lucky draw for one of ten vouchers to the value of R50 airtime. The lucky draw was done after data collection was completed. With the permission of the winners, their identities were made known so as to provide evidence that the incentives were real. This did not interfere with ethics considerations since being a publicised winner only disclosed that they have participated in the survey or study.

A weekly follow-up email to invite participants was sent out until no further increases in the response rate was evident as recommended by Robson (2011). An automated reminder email option is also allowed by the Survey monkey application to prompt those who had not responded to the invitation or had not yet completed the survey. The researcher was able to send out reminder emails to the sampling frame without running the risk of irritating participants who have already completed (Survey monkey, 2006).

The invitation to participate was sent to list of 77 students with 25 responses initially. A reminder email was sent to the balance of the list one week later which yielded twelve more responses. Finally another one week after, the final reminder was sent to candidates that had not yet responded which increased the number of responses by ten. The sample consisted of

47 students that constituted 61% of the sampling frame i.e. list of eligible candidates. Five responses were incomplete resulting in a final sample size of 42 students which was 54.54% of the sampling frame. The initial full response rate of 61% and the response rate of completed responses in this survey were higher than the expected average of 33% reported by Nulty (2008).

Unanticipated technological variations in the presentation and display of the survey were prepared for based on the recommendation of Nulty (2008). Consequently this study tested the legibility of the online survey on various monitors typically utilised by students. To ensure that all facets of data collection would happen unencumbered, a trial attempt was undertaken to guarantee that the questionnaire was easily accessed from various browsers, as well as from diverse service providers of e-mail consistent with the recommendation of Weigold, Weigold and Russell (2013). A number of different monitors and internet browsers were used to open the survey to ensure that the accessibility and legibility remained constant.

The survey was hosted on Survey Monkey, an online platform that creates time- and cost effective online surveys (Survey Monkey, 2016). The website also has an anti-spam policy that further allowed for confidentiality and anonymity to be ensured (<https://www.surveymonkey.com/mp/policy/anti-spam-policy/>). Data was collected and collated instantly as per the properties of their programme.

### **3.6. Procedure**

An electronic invitation to participate was sent to eligible students via e-mail. These emails comprised of a brief account of the study and a link to participation agreement by the students. A practice run of the survey was sent via email to the researcher and her supervisor's email addresses on the 20th of July 2015 in order to assess the accuracy and ease of administration of the survey. The survey went live and was emailed to 77 participants on the 23<sup>rd</sup> of July 2015. The survey remained active until the closing date. Reminder emails and

invitations were sent out on the 4<sup>th</sup> and the 12<sup>th</sup> of August 2015 respectively, two and three weeks after going live. No further reminders were sent after these dates as the final reminder email had not yielded an increase in responses and the survey was closed on the on-line platform.

### **3.7. Instruments:**

Four instruments were included in the online survey. Below is a brief outline of each instrument.

**3.7.1. Demographic questionnaire** – this self-constructed questionnaire measured key demographic variables e.g. age, gender, race, relationship status, full-time vs. part-time, funding, dependants, employment and country of origin based on the demographic variables identified in the literature. The preliminary version of the questionnaire was developed and revised subsequent to consultations with the supervisor. The final version of the questionnaire is reflected in Appendix A.

### **3.7.2. The Coping Orientation to the Problems Experienced Inventory (COPE).**

The multidimensional self-report Brief COPE instrument (Appendix B) is a truncated version of the original COPE questionnaire designed by Carver, Scheier and Weintraub (1989). The Brief COPE consists of twenty eight items measured on a four-point Likert scale. Carver et al. (1989) reported empirical support for the purported two factor structure with excellent psychometric properties.

Fourteen subscales have been identified namely; adaptive coping styles include planning, active coping, humour, and acceptance, religion, seeking emotional support, seeking social support, positive re-framing and self-distraction. Maladaptive coping styles are venting, denial, detachment, substance use and self-blame. Good psychometric properties and internal consistency have been reported in international (e.g. Krypzel & Henderson-King, 2010) and local studies (e.g. Kotzé, Visser, Makin, Sikemma & Forsyth, 2013; Nel & Roomaney, 2015).

**3.7.3. The Perceived Stress Scale [PSS]** (Cohen, Kamarck & Mermelstein, 1983) (Appendix C) is a fourteen-item measure developed to ascertain the degree to which life is perceived to be stressful. The scale was intended for use in community samples and consists of 14 items that measures how uncontrollable, unpredictable, and overloaded respondents experience their lives to be (Boyle, 2014). A five point Likert-type scale is used to rate responses ranging from “not at all satisfied” (1) to “very satisfied” (5). The higher the score overall the more stressful life is perceived to be. The Cronbach alpha scores for the PSS range between 0.84 and 0.86 in Irish samples and has been found reliable and valid in a South African sample with a Cronbach alpha of 0.72 (Magalhaes Das Neves, Loots & van Niekerk, 2014). Given the selected population of post-graduate level students with above-average intellect in a multi-cultural tertiary institution, language and cultural relevance were not expected to be problematic.

**3.7.4. Big Five Personality Inventory (BFI)** - Personality measure BFI-10 (Rammstedt & John, 2007) (Appendix D) is an eleven item short version of the BFI constructed by Goldberg (1993). This instrument measures the big five traits or characteristics of emotional, experiential, interpersonal, attitudinal and motivational traits according to the Five Factor Model of personality (Branco e Silva & Laher, 2012). The measure includes Openness to Experience, Agreeableness (altruism), Neuroticism (emotional stability), Extraversion (positive emotionality), and Conscientiousness (self-control). A five-point Likert-type scale rates the responses ranging from “disagree strongly” (1) to “agree strongly” (5). The five factor model is considered to be the most commonly used structure of trait personality within universal, cross cultural, language and research aspects with good psychometric properties (Branco e Silva & Laher, 2012; Thalmayer et al., 2011).



### **3.8. Data analysis:**

#### **3.8.1. *Descriptive analysis***

Descriptive statistics was used to summarize the details of the sample specifically frequency distributions, measures of central tendency and variability. According to Terre Blanche et al. (2006) descriptive statistics are a good way to represent or display a set of scores. The present study included three specific objectives to establish profiles of the sample and descriptive statistics were the appropriate measures to achieve these.

#### **3.8.2. *Inferential analysis***

Inferential statistics was used to test for associative relationships. Inferential statistics allowed us to obtain information from the sample to draw certain conclusions on significant relationships between variables about the population represented (Clarke-Carter, 2004). The use of inferential statistics is appropriate when generalization from the sample to the population is desired or intended (Mukaka, 2012), as was the case in the present study.

Issues of power are very important when considering inferential parametric statistics and there is a positive correlation between the power of the analysis and the size of the sample (Field, 2009). Thus much attention has been given to minimum and required sizes of samples in texts on statistical analysis (e.g. Pretorius, 2007). A minimum sample size of 50 participants is recommended for the subsequent use of parametric statistics because the t- and z- distributions become identical when the sample size is equal to fifty ( $n=50$ ) which supports drawing inferences (Aron, Aron, & Coups, 2008). Babbie (2011) recommended that in survey studies a response rate of 50% and more yields data that will support the analyses. This author argued that the response rate is a better indicator for the purposes of drawing inferences rather than the conventional criterion of a minimum or threshold sample sizes.

The sample size in the present study does not exceed 50 which make the use of inferential statistics less desirable as per Pretorius (2007) and parametric statistics as per Aron, Aron and Coups (2008). A more conservative approach to data analysis would be to use non-parametric tests (Bhattacharjee, 2012). Alternatively, the data could be checked in order

to determine whether the assumptions for parametric tests are met. In the present study the data was examined and found to be normally distributed and variance was found to be homogenous supporting the use of inferential statistics (Fowler, 2009). As mentioned before, the final sample in the present study included 42 participants which constituted a response rate of 54.54% thus satisfying Babbie's (2011) recommendation regarding response rates that are appropriate for analysis. Thus the sample size was deemed appropriate for the proposed use of inferential parametric statistics.

The ensuing analysis included Correlation for testing associations between identified variables. Correlation as an inferential statistic was considered appropriate given the objective of the study and the data supporting the analysis by satisfying the criteria for the specific test (Walker & Maddan, 2013).

Correlation matrices were computed with all variables to determine if there were significant relationships. Correlation produces a mathematical index that is an expression of the association between two variables (Mukaka, 2012). Aron, Aron and Coups (2009) recommended correlation as an appropriate method for assessing whether significant associations existed between variables. Correlations are also typically used in the analysis of cross-sectional survey data since there are no causal inferences drawn (Field, 2009).

Correlations also enable us to compute the coefficients of determination and alienation (Gordon, 2012). The coefficients of determination reflect the percentage of variance on one variable that can be explained as a function of the association with another variable (Walker & Maddan, 2013). Conversely, the coefficients of alienation reflect the percentage of variance on one variable that remains unexplained (Peck, Olsen & Devore, 2011).

Walker & Maddan (2013) recommended that the type of variables being correlated determined which correlations should be used. Three different types of correlations were computed in this analysis based on the nature of the variables being correlated. The Pearson product moment was computed when two continuous variables were correlated e.g. Age and

Stress (Mukaka, 2012). The Biserial correlation coefficient was computed when a continuous variable was correlated with an artificial dichotomous variable (Aron, Aron & Coups, 2009). For example Age and Race. The latter consisted of four categories that were redefined as an artificial variable consisting of either “white” or “minority.” The Point-biserial correlation was computed when true dichotomous variables were correlated with continuous variables e.g. Stress and Gender. Gender consists of two categories that were mutually exclusive i.e. male and female (Clarke-Carter, 2004).

A more conservative approach was used to assess predictive relationships in the sample given the concerns about the sample size mentioned earlier. The general linear model (GLM) was used to test the predictive relationships between personality traits, coping styles and perceived stress (Walker & Maddan, 2013). A multiple regression analysis was utilised to determine if the independent variables can significantly predict the dependent variable (Aron, Aron, & Coups, 2009). The regression analysis was computed using an omnibus test that enters all variables in the model simultaneously which allowed them to compete with each other so that the unique contribution of each variable controlling for all other predictors in the model could be identified (Gordon, 2012). The model of regression and individual semi-partial regression coefficients were tested for significance. (Clark-Carter, 2004)

### **3.9. Ethics:**

Permission to conduct the study and ethics clearance was obtained from the Senate Research Committee and Senate Higher degrees committees of UWC (Appendix E). Permission to conduct the study at the identified institution was requested and attained from the Registrar (Appendices F & G). The contact details of Honours students and interns were obtained from the Head of Department of Psychology by the supervisor. The researcher did not have access to the actual distribution contact details, but only the information that the participants produced after it was listed on survey monkey by the supervisor in accordance with the Protection of Personal Information Act (POPI act) (De Bruyn, 2014). The initial

electronic invitation to participate was sent by the supervisor to introduce the researcher and the study. An information sheet was prepared for students to explain the purpose of the study, what participation entails, the rights and responsibilities of the researcher and participants, the dissemination protocol, and the recourse they have access to (Appendix H). Participation was voluntary and participants had the right to withdraw at any time without fear of negative consequence. Confidentiality was maintained by anonymizing completed questionnaires and facilitated by the survey monkey application. Further anonymity was ensured in the results by reporting on certain variables globally so as to not identify the University. Appropriate referrals would have been made if any concerns arose in respects of the stressors reportedly experienced, difficulties in coping and personality functioning. Participants completed an electronic consent form by clicking ‘accept’ on a link (Appendix I).

## 4. Results

### 4.1. Profiles

The results include four profiles namely demographics, and profiles of the sample for perceived stress, coping styles and personality traits respectively.

#### 4.1.1. Demographic profile

The demographic profile of the respondents is represented in Table 1 below.

Table 1. Demographic profile (n=42)

Variable	Item	Percentage	N
<b>Gender</b>	Male	23.40%	n=11
	Female	76.59%	n=36
<b>Race</b>	Black	8.51%	n=4
	Coloured	61.70%	n=29
	White	25.53%	n=12
	Indian	4.25%	n=2
<b>Age</b>	20 – 24yrs	49.83%	n=23
	25 – 29yrs	19.14%	n=9
	30 – 39yrs	23.40%	n=11
	40 – 49yrs	6.38%	n=3
	50+	2.12%	n=1
<b>Citizenship</b>	South African	97.74%	n=45

	Other	4.26%	n=2
<b>Graduate University</b>	Same university	84.78%	n=39
	Local university	15.27%	n=7
	University outside RSA	6.52%	n=3
<b>Relationship status</b>	Single	42.55%	n=20
	Married	29.87%	n=14
	Committed relationship	27.65%	n=13
<b>Dependants</b>	Have	39.53%	n=17
	None	71.42%	n=30
<b>Registration status</b>	Full time	74.46%	n=35
	Part time	21.27%	n=10
	Occasional	4.25%	n=2
<b>Financial responsibility of studies</b>	Self-supporting	40.42%	n=19
	parents	14.89%	n=7
	spouses	6.38%	n=3
	Sponsorships	38.29%	n=18
<b>Employment</b>	Full time	14.89%	n=7
	Part time campus based	10.64%	n=5
	Part time off campus	21.28%	n=10
	Unemployed	36.17%	n=17
<b>Study</b>	Honours	70.21%	n=33
	B.Psych equivalent	29.29%	n=14

#### 4.1.2. Perceived stress profile:

The perceived stress scores for the sample are reflected in Table 2 below. The scores are presented relative to the status of the participants based on Honours or B.Psych equivalence registration. The range, mean and standard deviations for each group are reported. The scores have also been ranked in descending order based on the average scores for the sub-group.

Table 2. Perceived stress profile (n=42)

No	Profile	Range	Minimum	Maximum	Mean	Std. Deviation
1	Honours	24	18	42	29.195	5.828
2	B.Psych Equivalent	19	19	38	27.924	5.369

#### 4.1.3. Personality profiles:

The profile of the sample on each of the personality traits is reflected in Table 3 below. The range, mean and standard deviations for each trait were reported. The traits have also been ranked in descending order based on the average scores for the sample.

Table 3 – Personality Profiles (n=42)

Rank order	Range	Minimum	Maximum	Mean	Std. Deviation
Agreeableness	6	9	15	12.50	1.581
Conscientiousness	6	4	10	8.12	1.611
Openness to Experience	7	3	10	6.78	1.388
Extraversion	8	2	10	6.04	2.083
Neuroticism	8	2	10	5.60	2.220

#### 4.1.4. Coping styles profile:

The profile of the sample in terms of coping styles has been determined through measures of central tendency and variability as represented in Table 4 below. The coping styles have been ranked and are presented in descending order based on the mean scores obtained.

Table 4 – Coping styles profile (n=42)

Rank order	Range	Minimum	Maximum	Mean	Std. Deviation
Planning	6	2	8	6.465	1.403
Religion	6	2	8	6.098	1.786
Acceptance	4	4	8	5.977	1.205
Active coping	6	2	8	5.955	1.539
Positive reframing	6	2	8	5.837	1.495
Emotional support	6	2	8	5.523	1.635
Social support	4	4	8	5.432	1.500
Self-distraction	6	2	8	4.977	1.406
Venting	6	2	8	4.674	1.322
Self-blame	6	2	8	4.651	2.022
Humour	6	2	8	3.738	1.808
Denial	5	2	7	2.795	1.322
Detachment	4	2	6	2.605	1.003
Substance use	4	2	6	2.302	1.003

#### 4.1.5. Associative relationships

The results of the correlation matrix for demographic variables are presented in Table 5 below.

Table 5. Correlation matrix for demographic variables (n=42)

Variables		Age	Gender	Race	Relationship status	Registration status
Age	r	1				
	Sig. (2-tailed)					
Gender	r	-.172	1			
	Sig. (2-tailed)	.25				
Race	r	-.257	<b>.359**</b>	1		
	Sig. (2-tailed)	.08	.01			
Relationship status	r	-.074	.098	-.134	1	
	Sig. (2-tailed)	.62	.51	.37		
Registration status	r	.178	.118	.155	-.089	1
	Sig. (2-tailed)	.23	.43	.30	.55	

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

A significant correlation was identified between **Race** and **Gender** ( $r = .359$ ) at a .01 alpha level. The size of the correlation suggests that there is a small association between the two variables. The correlation index was positive in nature. This association suggests that as we moved from male to female gender there was an increase in minority status. In other words, minority students tended to be female. The coefficient of determination ( $r^2 = .129$ ) indicates that 12.9% of the variance on Race was a function of Gender.

The results of the correlations between demographic variables and coping are presented in Table 6 below.

Table 6. Correlation matrix for demographic variables with coping (n=42)

Variables		Age	Gender	Race	Relationship status	Registration status
Substance	r	-.129	.069	-.163	.113	-.202
	Sig. (2-tailed)	.411	.662	.295	.469	.195
Detachment	r	-.081	-.032	-.101	-.178	-.122
	Sig. (2-tailed)	.606	.838	.518	.254	.437
Venting	r	-.140	<b>.326*</b>	.103	-.011	.008

	Sig. (2-tailed)	.370	.033	.512	.947	.962
<b>Self-blame</b>	r	-.245	.098	-.035	.023	-.296
	Sig. (2-tailed)	.114	.512	.825	.882	.054
<b>Denial</b>	r	-.146	.014	.069	-.254	-.074
	Sig. (2-tailed)	.345	.929	.654	.096	.631
<b>Positive Reframe</b>	r	.024	-.168	.090	-.063	-.054
	Sig. (2-tailed)	.879	.276	.654	.689	.732
<b>Self-distraction</b>	r	-.194	-.087	.091	-.186	<b>-.350*</b>
	Sig. (2-tailed)	.207	.575	.557	.266	.020
<b>Social support</b>	r	-.092	.158	.079	-.020	-.101
	Sig. (2-tailed)	.554	.306	.609	.897	.513
<b>Emotional support</b>	r	<b>-.326*</b>	<b>.310*</b>	.064	.206	-.149
	Sig. (2-tailed)	.031	.041	.682	.179	.334
<b>Acceptance</b>	r	-.246	-.196	-.032	-.110	-.026
	Sig. (2-tailed)	.112	.209	.840	.484	.869
<b>Religion</b>	r	-.061	-.130	-.008	-.282	.033
	Sig. (2-tailed)	.703	.419	.960	.067	.837
<b>Humour</b>	r	-.287	-.141	-.140	.016	-.045
	Sig. (2-tailed)	.065	.371	.377	.920	.766
<b>Planning</b>	r	-.159	<b>.343*</b>	.282	-.179	-.018
	Sig. (2-tailed)	.308	.024	.067	.263	.909
<b>Active coping</b>	r	-.096	-.123	-.116	.016	-.203
	Sig. (2-tailed)	.536	.426	.464	.920	.134

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

A significant correlation was identified between **Venting** and **Gender** ( $r = .326$ ) at a .05 alpha level. The size of the correlation suggests that there is a small association between the two variables. The correlation index was positive in nature. This association suggests that as we moved from male to female gender there was an increase in the use of venting as a coping strategy. The coefficient of determination ( $r^2 = .106$ ) indicates that 10.6% of the variance on Venting was a function of Gender.

A significant correlation was identified between **Registration status** and **Self-distraction** ( $r = -.350$ ) at a .05 alpha level. The size of the correlation suggests that there is a small association between the two variables. The correlation index was negative in nature. This association suggests that as we moved from Full time to Part-time registration there was a decrease in the use of self-distraction as a coping strategy. The coefficient of determination



( $r^2 = .123$ ) indicates that 12.3% of the variance on Self-distraction was a function of registration status.

A significant correlation was identified between **Age** and **Emotional support** ( $r = -.326$ ), as well as **Gender** and **Emotional support** ( $r = .310$ ) at a .05 alpha level. The sizes of the correlation suggest that the association between the two sets of variables was small. Age was inversely correlated with emotional support suggesting that older students used emotional support less as a coping strategy. The coefficient of determination ( $r^2 = .106$ ) indicates that 10.6% of the variance on emotional support was a function of age. Gender was positively correlated with emotional support suggesting that female students were more likely to use emotional support as a coping strategy. The coefficient of determination ( $r^2 = .096$ ) indicates that 9.6% of the variance on emotional support was a function of gender.

A significant correlation was identified between **Gender** and **Planning** ( $r = .343$ ) at a .05 alpha level. The size of the correlation suggests that there is a small association between the two variables. The correlation index was positive in nature. This association suggests that as we moved from male to female gender there was an increase in the use of planning as a coping strategy. The coefficient of determination ( $r^2 = .118$ ) indicates that 11.8% of the variance on Planning was a function of Gender.

The results of the correlations between demographic variables and perceived stress, as well as Personality traits are summarized in Table 7 below.

Table 7. Correlation matrix for demographic variables with Perceived stress and Personality (n=42)

Variables		Age	Gender	Race	Relationship status	Registration status
<b>Openness</b>	r	-.252	-.128	-.179	.055	-.270
	Sig. (2-tailed)	.11	.43	.26	.73	.09
<b>Neuroticism</b>	r	-.303	.062	.062	.100	-.201
	Sig. (2-tailed)	.05	.70	.70	.53	.20
<b>Conscientious</b>	r	.242	-.143	.105	<b>.398**</b>	-.162
	Sig. (2-tailed)	.12	.37	.51	.01	.31
<b>Agreeable</b>	r	.137	-.019	.055	-.248	<b>.306*</b>
	Sig. (2-tailed)	.39	.91	.73	.11	.05
<b>Extraversion</b>	r	.270	-.270	<b>-.328*</b>	.200	.263
	Sig. (2-tailed)	.08	.08	.03	.20	.09
<b>PS Total</b>	r	-.113	.233	<b>.336*</b>	-.045	-.040
	Sig. (2-tailed)	.48	.14	.03	.78	.80

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

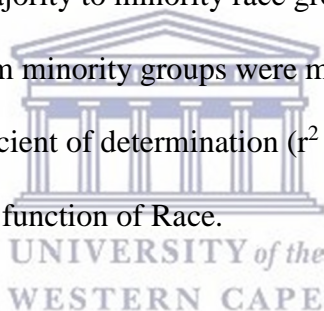
\*\*. Correlation is significant at the 0.01 level (2-tailed).

A significant correlation was identified between **Relationship status** and **Conscientiousness** ( $r = .398$ ) at a .01 alpha level. The size of the correlation suggests that there is a small association between the two variables. The correlation index was positive in nature. This association suggests that students who were in committed relationships were significantly more likely to display conscientiousness as a personality trait. The coefficient of determination ( $r^2 = .158$ ) indicates that 15.8% of the variance on Conscientiousness was a function of relationship status.

A significant correlation was identified between **Registration status** and **Agreeableness** ( $r = -.306$ ) at a .05 alpha level. The size of the correlation suggests that there is a small association between the two variables. The correlation index was positive in nature. This association suggests that as we moved from Full time to Part-time registration there was an increase in the Agreeableness as a personality trait. The coefficient of determination ( $r^2 = .094$ ) indicates that 9.4% of the variance on Agreeableness was a function of Registration status.

A significant correlation was identified between **Race** and **Extraversion** ( $r = -.328$ ) at a .05 alpha level. The size of the correlation suggests that there is a small association between the two variables. The correlation index was negative in nature. This association suggests that as we moved from majority to minority race groups there was a decrease in Extraversion as a personality trait. Thus students from minority groups were more reserved. The coefficient of determination ( $r^2 = .108$ ) indicates that 10.8% of the variance on Extraversion was a function of Race.

A significant correlation was identified between **Race** and **Perceived Stress** ( $r = .336$ ) at a .05 alpha level. The size of the correlation suggests that there is a small association between the two variables. The correlation index was positive in nature. This association suggests that as we moved from majority to minority race groups there was an increase in perceived stress. Thus students from minority groups were more likely to report their experiences as stressful. The coefficient of determination ( $r^2 = .015$ ) indicates that 1.5% of the variance on Perceived Stress was a function of Race.



#### 4.1.6. Regression analysis

The results of the regression analyses have been summarized in Table 8 below.

Table 8. Regression analysis ( $n=42$ )

Model	Predictors	Outcome	R <sup>2</sup>	b
1	Extraversion	Perceived Stress	.171 ( $p=.247$ )	-.312 ( $p=.056$ )
	Agreeableness			.110 ( $p=.522$ )
	Conscientiousness			-.236 ( $p=.224$ )
	Neuroticism			-.185 ( $p=.318$ )
	Openness			-.145 ( $p=.377$ )
2	Emotion-focused coping	Perceived Stress	<b>.134*</b> ( $p=.036$ )	-.135 ( $p=.067$ )
	Problem-focused coping			-.310 ( $p=.071$ )
	Maladaptive coping			<b>.425*</b> ( $p=.047$ )

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

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

Model 1 regressed the personality traits (Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness) onto Perceived Stress. Null findings were

reported for the model. Thus the personality traits did not significantly predict perceived stress.

Model 2 regressed the subscales of coping onto Perceived stress. The model tested significant at .05 alpha level, and explained 13.4% of the variance on perceived stress. From this model, maladaptive coping was a significant predictor of perceived stress controlling for emotion-focused coping and problem-focused coping at a .05 alpha level. For every one unit increase in maladaptive coping there is a corresponding increase of .425 in perceived stress controlling for the remaining predictors in the model.

## 5. Discussion

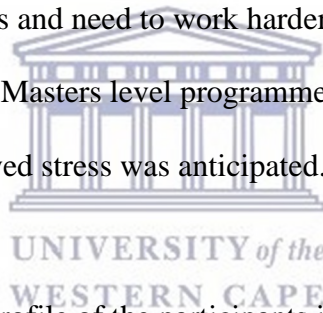
The aim of this study was to determine the relationship between coping styles, stress and personality traits in a sample of Psychology Honours students.

### 5.1. *Perceived Stress profile*

The findings indicate that low to medium levels of stress was reported by the sample. This finding was not consistent with the literature that suggests university students experience high levels of stress (Al-Dubai et al.,2011; Chao, 2012; Eisenbarth, 2012; Kausar, 2010; Mudhovozi, 2011; Nelson et al.,2001; Yew et al.,2015) and that additional sources of stress are relevant in higher levels of education (Abel & Louw, 2009). In addition, the expected result was medium to high levels of stress related to the Honours level students constituting a vulnerable group with added levels of stress as mentioned above (e.g. Abel & Louw, 2009; Gerber & Hoelson, 2011). The medium levels of perceived stress could be contributed to the actual workload stress but also include contextual factors like gender, age and race as per previous literature (Baqtayan & Mai, 2012; Chao, 2012; Kausar, 2010; Mudhovozi, 2011). The counter-intuitive finding might be related to other factors like more amenable personality traits and possible adaptive types of chosen coping styles as reflected in the personality and

coping styles profiles. Unfortunately, the data did not support a more robust analysis that could assess for moderating or mediating influences as hypothesized above.

The results on the perceived stress profile indicate that B.Psych equivalent students reported a more truncated range on perceived stress in comparison to Honours students. The results of perceived stress in relation to the status of the participants based on Honours or B.Psych equivalence registration indicated a slightly higher mean of 29.195 compared to 27.924 respectively. This indicates that the Psychology Honours students perceived their lives as slightly more stressful than their B.Psych equivalent cohort. Considering the vocational outcome options of the B.Psych participants according to research already mentioned above (Abel & Louw, 2009), this result was expected. The Honours participants have no vocational surety after completing their studies and need to work harder to be successful in the selection process to continue their studies to Masters level programmes in the subsequent academic year. Thus a higher level of perceived stress was anticipated.



## **5.2. Personality profile**

The results on the personality profile of the participants indicate that the trait with the highest rank (mean = 12.50) as **Agreeableness**. According to Carver and Connor-Smith (2010) agreeableness denotes a broad social perspective by considering the needs of others, a pro-social orientation, and altruistic tendencies towards others. This trait is absolutely necessary in the discipline of psychology and is not surprising that it is ranked the highest in this sample. As per Costa (1996) and Chamorro-Premuzic and Furnham, (2003) Agreeableness is required for effective interpersonal interaction and the ability to create trust and being tender-minded is a fundamental requirement in the profession and in this population group.

**Conscientiousness** was ranked second (mean = 8.12) and is linked closely to agreeableness. Conscientiousness is linked to a broad time perspective, meaning that potential

future possibilities are considered (Carver & Connor-Smith, 2010). According to Kyllonen, Lipnevich, Burrus and Roberts (2014), Bartley and Roesch (2009) and Chamorro-Premuzic and Furnham, (2003) Conscientiousness was found to predict academic achievement. Branco e Silva and Laher (2012) explain Conscientiousness as a trait that implies self-control and incorporates certain skills like organising, planning and executing tasks in a purposeful manner. This trait is another premium personality required trait in the psychology profession and higher education thus understandably placed in the top three traits of this cohort. The difficulty of the path to becoming a qualified psychologist in practice (Abel & Louw, 2009) requires high levels of Conscientiousness.

**Openness to experience** was ranked third with a mean of 6.78. Openness to experience is sometimes considered as instilled with or implying intellect or crystallized intelligence (Carver & Connor-Smith, 2010; Kyllonen et al. 2014). Openness to experience involves attentiveness to inner emotional states, flexibility, curiosity, active imagination and willingness to engage in atypical social experiences (Branco e Silva & Laher, 2012; McCrae & Costa, 1986). This trait is another implied quality requirement for the profession and for academic success at this higher educational level and is an expected result.

**Extraversion** was ranked fourth with a mean of 6.04. Branco e Silva and Laher (2012) and Carver and Connor-Smith (2010) explain extraversion as the tendency to be sociable, talkative, assertive, and dominant opposed to being withdrawn, reserved and quiet. The fourth trait is also encouraged in the profession and training in increasingly smaller groups require students to become more outgoing even if they are not extroverted. Extraversion is a trait required for effective interpersonal interactions that is necessary in the profession and in leadership characteristics but can also be a hindrance if excessive in ensuring the focus required for academic success (Chamorro-Premuzic & Furnham, 2003).

The lowest ranked personality trait was **Neuroticism** with a mean of 5.60. Negative emotionality and a tendency to experience emotions like sadness, fear, anger, moodiness, distress, anxiety, hostility and more are linked with this personality trait (Branco e Silva & Laher, 2012; Carver & Connor-Smith, 2010; McCrae & Costa, 2003). Neuroticism is the least desired trait so it also is not surprising that it is reported as such in this population.

### **5.3. Coping profile**

In the profile of coping styles of the participants, **Planning** was the highest ranked with means of 6.465. The ranking could likely be attributed to the level of study. Kyllonen et al. (2014) reported that the need to plan effectively is a pre-requirement for successful postgraduate and further studies. Planning is about thinking about how to cope with a situation or stressor and involves coming up with active strategies and step by step methods (Carver et al., 1989). The high ranking of planning as a coping style in this sample could also be attributed to the personality trait and gender composition. Regarding the personality trait of conscientiousness that was ranked second in this population, planning is seen as a trait of this personality characteristic (Branco e Silva & Laher, 2012). Furthermore, Lawrence et al (2006) and McKinzie et al. (2006) reported that female students possibly planned better and were better prepared as could be conceivable with our sample as 76.59% was female.

**Turning to religion** was ranked second (mean = 6.098). Turning to religion is well established as a way of coping in research reporting on postgraduate samples (Boyle, 2014; McKinzie et al., 2006). The use of this particular coping style was reported regardless of gender and ethnicity (e.g. Eksi, 2010; Sheu & Shedlacek, 2004). Thus in the present study the sample composition in terms of gender and ethnicity would not unduly or significantly impact the ranking of this coping style. Turning to religion is an adaptive coping style (Carver, Scheier & Weintraub, 1989) and it could be expected that psychology students employ more adaptive coping styles compared to the non-psychology population (McKinzie et al., 2006).

Delaney, Miller, and Bisono (2013) endorse religion as a positive mediating factor for ensuring good mental health with research findings suggesting mortality rates diminishing by 25% after turning to religion. Furthermore their findings indicate psychologist as a cohort relative to the general population were less likely to report their religious beliefs or use religion to cope which is not the case in our sample.

**Acceptance** was ranked third (mean = 5.977) and is seen as a functional or adaptive coping response (Carver et al., 1989) and refers to individuals who accept the reality of a stressor and attempt to deal with it. This coping style being ranked so high in this population is expected and indicates that their ability to deal with perceived stress is more adaptive and functional.

**Active Coping** was ranked fourth (mean=5.955) indicating that an individual is taking active direct action and steps to try and deal with or ameliorate the stressor (Carver et al., 1989). The result in this population and the ranking indicate a higher level of adaptive functioning ability and knowledge of active ways of coping which is linked to planning as the highest ranking coping style. Although the sample has more females, it seems that actively taking steps to deal with stress, which is more expected with a male sample, was unexpected and is unsure why this is so.

**Positive Reframing** was ranked fifth (mean = 5.837) and is considered to be an emotion focused coping style which is aimed at managing distressing emotions rather than dealing with the actual stressor (Carver et al., 1989). It seems that the individuals in this psychology sample chose to cope with their stressors by active coping first and more than emotion focused coping although the distressing emotions are also addressed by positive reappraisal and change.



**Seeking emotional support** was ranked sixth (mean = 5.523). The lower ranking here might be attributed to the nature of the discipline. Mixed reports exist on seeking emotional support as a coping style in Psychology student populations. Some literature reported psychology student samples to be less inclined to seek emotional support as a coping style (e.g. Gerber & Hoelson, 2011). Boyle (2014) reported that possible barriers to seeking emotional support like therapy, was finding a therapist that is not a colleague or mentor and a therapist that is considered good enough according to the psychologists' own high expectations. The discipline encourages self-reflection and introspection which is thought to reduce the need for external validation of emotional experiences (Jordaan et al., 2007; Nelson et al., 2001). On the other hand, Nel and Roomaney (2015) in a study comparing psychology and non-psychology students reported that psychology students sought emotional support significantly more than their counterparts. Similarly, El-Ghoroury et al. (2012) reported that psychology students use this coping style more. It was thought that Psychology students are more attuned to their emotional lives and therefore would engage in a more emotionally-explicit manner, even in stressful situations (Kuyken et al., 2003). The middle ranking was surprising given that research has reported seeking emotional support as significantly more prevalent amongst females for both the general population and student population. As mentioned before, the sample consisted of more female students though the coping style was ranked more in the middle.

**Seeking social support** was ranked seventh (mean=5.432) suggesting that it was a less preferred coping style in the present study. Mixed findings were reported for this coping style in the literature. As with seeking emotional support, some research indicated that individuals studying psychology would possibly require less seeking of social support (Boyle, 2014; Gerber & Hoelson, 2011; Jordaan et al., 2007). On the other hand, Nelson et al. (2001) reported that female students seek and employ more support from their close friends, family

and help sources. The findings in the present study supported the former notion despite being a predominantly female sample.

**Self- distraction** was ranked eighth (mean= 4.977) and according to Carver et al. (1989) is considered a less effective coping style. Results of a study by Jordaan et al. (2007) indicated that psychologists who distance themselves and do not focus on dealing with the stressor had increased levels of distress.

**Venting** was ranked ninth (mean= 4.674) and refers to focused attention on what is distressing and expressing those feelings. Carver et al. (1989) postulates that this coping style can be functional initially but can also exacerbate the distress and impede change if focused on too long.

**Self-blame** was ranked fifth last and tenth (mean=4.651) and according to Jordaan et al. (2007) can be constructed as form of anger focused on the self which can lead to depression and is viewed as a predictor of reduced adjustment to stressful situations. It is anticipated to be of lower rank in this population of psychology honours students although because of the profession and expected level of functioning it is still evident.

**Humour** was ranked fourth last (mean= 3.738) and according to Kuiper, Martin and Olinger (1993) humour can be a mitigating factor in managing stress and being more humorous could lead to appraising life as less threatening and result in better emotional and physical health. Abel (2003) reports that humour can be used to restructure a stressful situation to be more positively appraised and likely lead to the initiating of conscious efforts to problem solve. In this population humour was not used as much which could indicate that their appraisal of stress was more menacing.

**Denial** was ranked third last (mean = 2.795) and is the opposite of acceptance and is seen as a controversial concept. Carver et al. (1989) refers to denial as possibly being useful

initially to minimise distress and enabling coping but denying the reality of the problem can intensify the situation and lead to more difficulty in coping at a later stage.

**Detachment** was ranked second-last (mean = 2.605) and Carver et al. (1989) considers this a dysfunctional coping style identifying terms like helplessness with this style. The low ranking in this population indicates the more adaptive choice of coping styles this population employs and is fitting with the level of education and profession. The discipline of Psychology is focused on identifying emotions and dealing with difficult stressors and assisting individuals with skills of coping more effectively and not feeling helpless.

**Substance use** was ranked lowest (mean = 2.302) and this was expected in this population although there is research that indicate students, especially male students often use substances as a method to cope whilst studying (Al-Dubai et al., 2011; Dearing et al., 2005). The ranking could be this low because of the high rate of females in this population as well as the developmental level of the population as Pillay and Ngcobo (2010) and Al-Dubai et al. (2011) indicate prevalence of substance use in undergraduate students as more customary.

**Adaptive versus maladaptive coping:** The results indicated that active or adaptive coping styles were ranked higher than maladaptive coping styles. This resonates with the literature indicating that postgraduate samples used adaptive coping styles more like seeking emotional and social support, positive reframing, religion and acceptance (e.g. Boyle, 2014; McKinzie et al., 2006). Research has also confirmed postgraduate students in Psychology used mostly adaptive coping styles as there is an expectation that individuals in the discipline of psychology uphold a healthier level of functioning in relation to physical and mental health (McKinzie et al., 2006). Mudhovozi (2011) reported that students who observe themselves as able to cope adaptively and have adequate coping resources experience life as less demanding and stressful. Maladaptive coping has been reported less in this sample as in general populations (Kuyken et al., 2003; Nel & Roomaney, 2015) although it is still evident. It is

unsure if the gender composition and other demographic factors e.g. age contributed to the lower ranking of these maladaptive styles of coping.

#### **5.4. Associative relationships**

##### ***5.4.1. Correlation matrix for demographic variables***

There was a significant positive relationship between **Race** and **Gender**. This association suggests that as we moved from male to female gender there was an increase in minority status. This finding reflects the HDI status which includes higher representation of female gender and minority ethnicity status. This is confirmed with the characteristics of the psychology graduate population in South Africa, 73% female and racial profile of 33% Black, 7% Coloured, 7% Indian or Asian and 53% White (Louw & Machedze, 2015 & HPCSA, 2014). This begins to be more reflective of the national psychology population statistics and to increase the participation rates for minority and female students in higher education. However, both gender and race have been identified as risk factors for retention and throughput (e.g. De La Rey, 2006). Thus in this sample at a HDU there would be compounded or exponential risk for student retention and throughput (HPCSA, 2014). Fischer and Scott (2011) concluded that the under-representation of successful black students at postgraduate levels constituted confirmation.

##### ***5.4.2. Correlation between demographics and coping***

A body of research has indicated that there are demographic, racialized and gendered patterns to choices in individual coping styles in relation to stress (e.g. Baqutayan & Mai, 2012; Chao, 2012; Kausar, 2010; Mudhovozi, 2011). A significant positive correlation was identified between **Venting** and **Gender**. This relationship suggests that as we moved from male to female gender, venting was increasingly used as a coping strategy. The finding resonated with the core findings reported in the body of literature (e.g. Tamres, Janicki & Helgeson, 2002). Devenport and Lane, (2006) reported that women are more inclined to express emotion and prefer distress-reducing coping styles (like venting) compared to men.

Mahmoud et al. (2012) reported that stereotypical socialised gender roles contributed to reported gender-based differences in coping. It is important to note that the findings of the present study suggest an association that is probably reflective of socialized gender roles or stereotypes in coping, and not empirical gender-based differences. Thus it does not preclude other associations or relationships with other coping styles, nor does it imply a causal relationship. For example, some research reported that female students use more variations of coping styles compared to male students (e.g. El-Ghoroury et al., 2012; Lenz, 2010; Myers et al., 2012; Sheu & Sedlacek, 2014). Such findings might result in higher reported rates in some modes of coping for women in comparison to men. Other research reported null findings or found no significant differences in coping styles between genders (e.g. Kariv & Heiman, 2003; Lindqvist, Carlsson & Sjoden, 2000; Zafar & Mubashir, 2012). These null findings might reflect other processes which supersede stereotyped gender roles.

A second significant correlation was identified between **Registration status** and **Self-distraction** indicating a small negative association between the two variables. This association proposes that as we moved from Full time to Part-time registration there was a reduction in the use of self-distraction as a coping style. This could be indicative of the focus and attention given to studies as a full time student compared to a part time student where many other distractions are expected in general. It would be expected that full time students are more focused on their studies compared to part time students but the results indicate the opposite. The researcher could not find any research on the relationship between coping and registration status specifically thus this finding can provide empirical support for anecdotal findings that part time students present as more focused and less distracted than their full time registered student cohort.

A third significant correlation was identified between **Age** and **Emotional support** suggesting a small association between the two sets of variables. Age was inversely correlated

with emotional support suggesting that older students used emotional support less as a coping style. This finding was corroborated by other research where findings suggest that older students generally perceive situations as less stressful (e.g. Malefo, 2000). Similarly literature suggested that older students employ more independent coping styles due to a greater capacity to engage in personal contemplation than younger students (Mahmoud et al., 2012).

**Gender** was significantly associated with coping by **seeking emotional support**. The positive signage signified that female students were more likely to use emotional support for coping than male students. This finding confirmed previous research in the field. Devenport and Lane (2006) suggest that because females are expected to be more sensitive to other's needs they tend to seek more emotional support. Sheu and Sedlack (2014) indicate that females tend to use more positive help-seeking behaviours like therapy compared to their male counterparts and that race factors also affect help-seeking styles. Tamres et al. (2002) consider biological factors and fundamental gender differences underpinning why females may seek more emotional support. The females' "tend and befriend" vs. males' "fight or flight" responses respectively as well as socialised roles of encouraged or discouraged help seeking behaviour could be considered here. The higher number of females in this population could be indicative of this result.

Another significant correlation was identified between **Gender** and **Planning**. This relationship suggests that as we moved from male to female gender there was an escalation in the use of planning as a coping style. This finding resonated with previous research reporting that female students used planning more as a coping style compared to male students. Tinklin (2003) suggest that female students seem to be more prepared and do more planning ahead compared to male students. In contrasting findings by Devenport and Lane (2006) men were reported to use more planning and active coping in dealing with perceived stress than females.

### **5.4.3. Correlation between Demographics and Perceived Stress and Personality Traits**

As mentioned previously and as per the body of research, there were significant correlations found between some demographic variables and perceived stress. A significant correlation was identified between **Relationship status** and **Conscientiousness** indicating a small positive association between the two variables. The association suggests that students who were in committed relationships were significantly more probable to exhibit conscientiousness as a personality trait. Conscientiousness is a trait that comprises characteristics like self-control, order, persistence, reliability and dependability (Costa, 1996; Judge et al., 1999). This trait also affects positive mood, life satisfaction and perceived stress and health (Bartley & Roesch, 2010). Thus more positive tendencies that could be increased by being in a relationship could possibly increase the quality of the relationship status. There is not a lot of research on perceived stress and personality traits as indicated previously.

**Registration status** and **Agreeableness** were significantly correlated suggesting that students registered part-time tended to display the personality trait Agreeableness less than students registered full-time. This finding could be indicative of the nature of part-time studies which is more constrained and task-focused, and experienced as more stressful and causing psychological and physical ill preparedness to learn (e.g. Taylor & Owusu-Banahene, 2010). Thus part-time students might demonstrate greater urgency to complete the tasks at hand that might create the impression of reduced agreeableness. Conversely full-time students have more time at their disposal and might be perceived to have more time to engage with staff outside of the classroom and to participate in other activities that in turn could make them appear more agreeable.

A significant correlation was identified between **Race** and **Extraversion** proposing that Extraversion as a personality trait was increasingly reported in students from majority or dominant ethnic groups. This finding resonated with reports in the literature of students from

ethnic or racial minority groups being more reserved than White students (Sheu & Shedlacek, 2014). Similarly, students from collectivist cultures such as Eastern cultures were reported as being more reserved than students from western or individualist cultures (Yew et al., 2015).

Another significant correlation was identified between **Race** and **Perceived Stress** proposing that perceived stress was reported more by students from minority race groups. This finding concurred with the reports in the existing body of literature or research. For example Malefo, (2000) established that perceived lack of support, distant relationships with faculty, racial discrimination, accommodation and social as well as occupational status of parents influenced levels of perceived stress and maladaptive coping. El-Ghoroury et al. (2012) confirm similar experiences of perceived stress in racial minority students, specifically discrimination and racism and this group is reported to have less social support and more academic stress. Furthermore differences in difficulties with physical health, substance and alcohol abuse was more prevalent. Myers et al., (2012) reported similar racial discrimination, prejudice, isolation and different cultural expectations with higher rates of stress leading to more burnout, depression and reduced quality of life. In a study by Yew et al., (2015) cultural differences in perceived stress and dealing with stress was reported in an Asian sample which correlated with increased risk of physical health factors like. Pillay and Ngcobo,(2010) report finances to be a serious stressor in disadvantaged samples. In addition, academic work, fear of failing, death in the family and problems with substance abuse and criminality as specific perceived stressors.

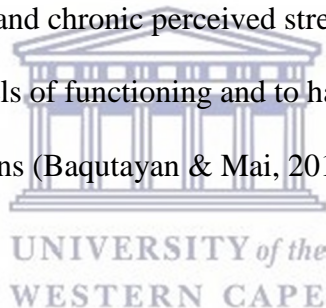
### **5.5. Predictive relationships**

The Model used to regress the subscales of coping onto Perceived stress tested significantly at a .05 alpha level. The results indicated that maladaptive coping was a significant predictor of perceived stress controlling for emotion-focused coping and problem-focused coping at a .05 alpha level. For every one unit increase in maladaptive coping there is



a corresponding increase of .425 in perceived stress controlling for the remaining predictors in the model. These results were intuitive and confirmed the findings of previous research. For example Myers et al. (2012) concluded that maladaptive coping increased distress in students. Similarly, Yew et al. (2015) reported that the subjective experience of not coping and the inability to adapt to environmental demands predicted increased perceptions of life events as stressful.

This finding underscores the importance of adaptive coping mechanisms in student populations in general and in this population in particular given that they constitute a vulnerable group as mentioned before (Abel & Louw, 2009; Fischer & Scott, 2011; Ntshoe & Selesho, 2012). A reduced capacity to adapt to environmental demands significantly predicts the perception of stress. Persistent and chronic perceived stress has been well established to result in the global decrease in levels of functioning and to have a negative effect on physical, cognitive and psychological domains (Baqutayan & Mai, 2012; Chao, 2012; Mudhovozi, 2011; Yew et al., 2015).



## **6. Conclusion**

This study aimed to explore the association between perceived stress, coping styles and personality traits in a sample of Psychology Honours students. Profiles: The medium levels of perceived stress could be contributed to the actual workload stress but also include contextual factors like gender, age and race as per previous literature (Baqutayan & Mai, 2012; Chao, 2012; Kausar, 2010; Mudhovozi, 2011). The counter-intuitive finding might be related to other factors like more amenable personality traits and possible adaptive types of chosen coping styles. The results on the perceived stress profile indicate that B.Psych equivalent students reported a more truncated range on perceived stress in comparison to Honours students.

Personality profile provided a narrow band of the four highest ranked traits. These traits were expected to be higher in a sample of Psychology postgraduate students since they are often indicated as important in the typical personality profiles in the discipline. Neuroticism was ranked the lowest and had a substantially lower mean than the other personality traits. The data did not support the assessment of that difference for statistical significance. Working in the discipline typically requires self-reflection and introspection that counters neuroticism. Thus it is unclear whether the lower reporting is a function of social desirability or a genuine reflection of a patterned representation of personality traits in this sample.

The profile of coping styles clearly ranked adaptive coping styles higher than maladaptive coping styles. Adaptive coping styles such as planning, religion, active coping and acceptance were ranked higher in this sample which might be a function of several possible factors including but not limited to social desirability, age, gender and ethnic composition of the sample, as well as the inclusion of B.Psych equivalents who have completed a higher level of professional training. In general the three profiles provided intuitive findings that were largely consistent with the literature with a few exceptions.

Associative relationships: Several significant associations were reported between demographic variables and coping, personality traits and perceived stress respectively. Race, Gender, relationship status, registration status and Age were found to correlate significantly with the three core constructs. In general the effect sizes were small or modest. The inclusion of demographic variables in the ensuing regression analyses were not supported based on the small effect sizes and the inconsistency of the significance of the correlations across subscales of the three core variables i.e. coping, perceived stress and personality traits. A further consideration was the sample size which did not support the inclusion of more than five predictors in the model (based on a threshold of 10 participants per predictors).

Predictive relationships: The results indicated that the combination of coping styles could significantly predict perceived stress in this sample. Maladaptive coping emerged as a significant predictor of perceived stress controlling for adaptive coping (e.g. emotion-focused coping and problem-focused coping). The intuitive finding resonated with the literature. This sample reported higher on adaptive coping styles which might then account for the lower stress profile reported. The lower stress scores reported does not constitute evidence that Honours students are a vulnerable group. The findings capture the challenge with this population in that they might genuinely have or might be expected to have better coping strategies which reduce their reported or perceived stress, but does not remove the additional stressors.

## **7. Limitations of the study**

A challenge that was not anticipated was the use of a mobile device to receive the e-mail invitation and complete the survey. This this eventuality was not tested in the dry run of the survey. It is possible that administration may not have been supported on all mobile devices.

The differences in experience of stress of Honour and BPsych students could indicate that they are from two distinctly different populations which would support the idea that they experienced different stress because they are not the same. The data though did not support the inferential testing of such a difference based on sample size and nature of the measurement. This limitation was extended to the testing of predictive relationships as well.

Another limitation could be only focusing on a HDU and not exploring other institutions which limit comparing the results.

Limited research on personality traits in the discipline of psychology as well as personality traits and coping styles limited more robust analysis for mediating or moderating the hypothesized objectives.

Possibly assessing coping styles in specific stressful situations instead of overall coping with perceived stress in general can be considered.

## **8. Significance of the study**

The present study provided an opportunity to gather empirical evidence about the associations between stress, coping styles and personality styles in a sample of Psychology Honours students, as a distinct subgroup at a HDU. In so doing, the study begins to address the gap in the literature on this vulnerable subgroup. In addition, the findings provide some insights into the challenges these students face that in turn can inform strategies for adequate support that in turn will aid in the retention and throughput of students. The study can assist in identifying and assisting psychology students with coping styles and managing stress. This can assist in facilitating higher retention and throughput rates as stipulated in the National Development Plan 2030, the 10-year innovation plan from the Department of Science and Technology, and the Strategic plan for Higher education. These results can also assist to assist with the mandate of the HPCSA to increase the number of Black educated graduates at a post graduate level and within the field of psychology.

## **9. Recommendations**

The findings of this study indicate that the systematic exploration of the profiles of Psychology samples, in particular Honours cohorts remain a focus of further research. Although institutional studies might provide useful contextualized information, larger cohort studies might prove helpful to gain insight into the patterned way that additional or unique stressors impact on the functioning of this developmental cohort. A replication and expansion

of the study with cohorts from more campuses will also provide a basis for comparisons between cohorts enrolled at different universities.

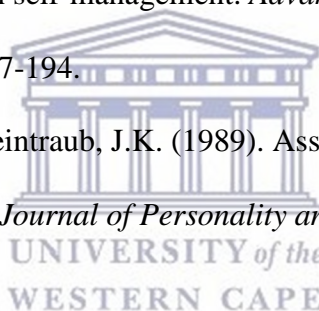
A focus for future research would be to explicitly examine the profiles of Honours and B.Psych equivalent cohorts, as well as examining potential differences in perceived stress and coping styles between them. Future research could also differentiate between the type of stress e.g. situational or personal, and the impact it has on the coping styles. Such a differentiation will provide a more nuanced insight and could assist in partialling out the contribution of academic and personal contexts.



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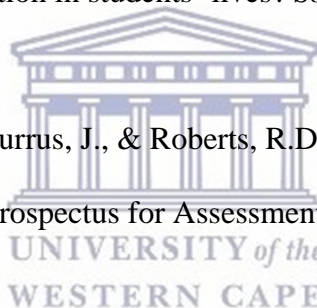
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## Appendices

### Appendix A: Demographic questionnaire.

Please complete the following demographic information, the survey will be anonymous and used for research purposes only.

No	Demographics						
1	Age	Ranges					
2	Gender (sex)	Male			Female		
3	Race	White	Coloured	Black	Indian	Other	
4	Country of origin	Listed					
5	Registration status	Full time		Part time		Occasional	
6	Relationship status	Married	Divorced	Committed relationship		Single	
7	Dependents?	Yes			No		
8	Prior undergraduate education	University list			Other		
9	Responsible for fees?	Self	Parents		Spouse	Scholarship	
10	Do you hold a part-time position?	N/A	Campus based	Off campus	Less than 15 hrs. per week	More than 15 hrs. per week	Fulltime

## Appendix B: Brief COPE survey

*These items deal with ways you've been coping with the stress in your life. There are many ways to try to deal with problems. These items ask what you've been doing to cope. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping.*

*I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it.*

*Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can. Mark the individual block that is most true for you with an **X**.*



- 1 = I haven't been doing this at all
- 2 = I've been doing this a little bit
- 3 = I've been doing this a medium amount
- 4 = I've been doing this a lot

Questions items	I haven't been doing this at all 1	I've been doing this a little bit 2	I've been doing this a medium amount 3	I've been doing this a lot 4
1. I've been turning to work or other activities to take my mind off things.				
2. I've been concentrating my efforts on doing something about the situation I'm in				
3. I've been saying to myself "this isn't real."				
4. I've been using alcohol or other drugs to make myself feel better.				
5. I've been getting emotional support from others.				
6. I've been giving up trying to deal with it.				
7. I've been taking action to try to make the situation better.				
8. I've been refusing to believe that it has happened.				
9. I've been saying things to let my unpleasant feelings escape.				
10. I've been getting help and advice from other people.				
11. I've been using alcohol or other drugs to help me get through it.				
12. I've been trying to see it in a different light, to make it seem more positive.				
13. I've been criticizing myself.				
14. I've been trying to come up with a strategy about what to do.				
15. I've been getting comfort and understanding from someone.				
16. I've been giving up the attempt to cope.				



Question items continued	I haven't been doing this at all 1	I've been doing this a little bit 2	I've been doing this a medium amount 3	I've been doing this a lot 4
17. I've been looking for something good in what is happening.				
18. I've been making jokes about it.				
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.				
20. I've been accepting the reality of the fact that it has happened.				
21. I've been expressing my negative feelings				
22. I've been trying to find comfort in my religion or spiritual beliefs.				
23. I've been trying to get advice or help from other people about what to do.				
24. I've been learning to live with it.				
25. I've been thinking hard about what steps to take.				
26. I've been blaming myself for things that happened.				
27. I've been praying or meditating.				
28. I've been making fun of the situation.				



## Appendix C: Perceived Stress Scale (PSS)

The questions in this scale ask you about your feelings and thoughts during the last month. *In this last month*, how often have you.....

No	Question item	Never 0	Almost never 1	Sometimes 2	Fairly often 3	Very often 4
1	.. been upset because of something that happened unexpectedly?					
2	.. felt that you were unable to control the important things in your life?					
3	.. felt nervous and stressed?					
4*	.. dealt successfully with irritating life hassles?					
5*	.. felt that you were effectively coping with important changes that were occurring in your life?					
6*	..felt confident about your ability to handle your personal problems?					
7*	.. felt that things were going your way?					
8	..found that you could not cope with all the things that you had to do?					
9*	.. been able to control irritations in your life?					
10*	.. felt that you were on top of things?					
11	.. been angered because of things that happened that were outside of your control?					
12	.. found yourself thinking about things that you had to accomplish?					
13*	.. been able to control the way you spend your time?					
14	.. felt difficulties were piling up so high that you could not overcome them?					

**Appendix D: Big 5 Personality survey (short version) BFI-10**

How well do the following statements describe your personality? Choose one of the columns; from “disagree strongly” to “agree strongly”.

No	I see myself as someone who....	Disagree strongly 1	Disagree a little 2	Neither disagree or agree 3	Agree a little 4	Agree strongly 5
1*	.. is reserved					
2	.. is generally trusting					
3*	.. tends to be lazy					
4*	.. is relaxed, handles stress well					
5*	.. has few artistic interests					
6	.. is outgoing and sociable					
7*	.. tends to find fault in others					
8	.. does a thorough job					
9	.. get nervous easily					
10	.. has an active imagination					
11	..is considerate and kind to almost everyone I meet					

**Thank you for taking the time to complete this survey. It is much appreciated!! ☺ ☺ ☺**

## Appendix E: Ethics clearance



UNIVERSITY of the  
WESTERN CAPE

### OFFICE OF THE DEAN DEPARTMENT OF RESEARCH DEVELOPMENT

09 July 2015

#### To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by:  
Ms S Nel (Psychology)

Research Project: The association between perceived stress, coping styles and personality traits in a sample of Psychology Honours students

Registration no: 15/4/43

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

A handwritten signature in blue ink, appearing to read 'Patricia Josias'.

*Ms Patricia Josias  
Research Ethics Committee Officer  
University of the Western Cape*

## Appendix F: Letter to Registrar



# UNIVERSITY *of the* WESTERN CAPE

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## DEPARTMENT OF PSYCHOLOGY

Private Bag X 17, Bellville 7535, South Africa, Telephone: (021) 959-2283/2453  
Fax: (021) 959-3515 Telex: 52 6661

The Registrar  
Student Administration  
UWC  
Private Bag X17  
Bellville, 7535  
10 July 2015

Re: Permission to conduct research at the University of the Western Cape.

I am currently registered as a student in the M. Psych (Clinical) programme at UWC. I have to complete a research project/ thesis in partial fulfilment of the degree requirements. To this end, I wish to apply for permission to conduct my Masters level study at UWC. The proposed study has been approved for ethics clearance at the Senate Research Committee (15/4/43). The explores the associations between perceived stress, coping styles and personality traits in a sample of Psychology Honours students and Post Honours interns at a historically disadvantaged university. The study is being supervised by Dr. Mario R. Smith who co-signed this letter to request permission to conduct the study on campus with the designated target group.

The study has been designed with Honours students in psychology as they have been identified in the literature as a subgroup that experiences additional pressure related to the nature of access to postgraduate degrees and the nature of training, as well as limited career prospects for those who exit without a Masters degree and professional registration. Increased issues in retention have also been noted more recently in this target group. The proposed study is an internet survey in which students will be asked to complete an online survey including measures of occupational stress, coping and personality traits, as well as demographic variables. This survey will take approximately 30 minutes to complete in an on-line forum called Survey monkey. In keeping with the Protection of personal information Act (PoPI), my supervisor who has full access to the class lists for Honours and interns, will send out an electronic invitation to students. Thus I will not have direct access to the contact details of students. The Survey Monkey website allows follow-up emails to be sent to uncompleted surveys without the researcher accessing the specific email



address or details of the participants. This will further protect the anonymity of responses and privacy of participants. Findings will be treated confidentiality. There are no risks anticipated in participating in this research project.

The benefits of participating include

- An opportunity to identify possible occupational stressors that students in this target group may be experiencing.
- An opportunity to reflect on their ways of coping when experiencing stress.
- An opportunity to reflect on their personality traits.
- To be entered into a lucky draw for a R250 Voucher if they successfully complete the survey.

We anticipate that the proposed study may help the investigator learn more about the relationship between stress, coping and personality factors in Psychology Honours students. This in turn could be helpful in planning appropriate support for this target group that might assist in retention and throughput. We hope that, in the future, other people might benefit from this study through improved understanding of these factors and how they relate to this group of students specifically.

We hope that this application will be met with your favourable approval. Please do not hesitate to contact my supervisors or myself if you require additional information.

Thanking you in anticipation.

Mrs.S. Nel  
Student # 3503562  
sanchenel@gmail.com  
0834470224

Dr. Mario R. Smith  
Supervisor  
mrsmith@uwc.ac.za  
0823309284/ Office X3713

## Appendix G: Permission to do research



UNIVERSITY of the  
WESTERN CAPE

### OFFICE OF THE REGISTRAR

Private Bag x17, Bellville 753  
South Africa  
Telegraph: UNIBELL  
T: +27 21 959 2102/2111  
F: +27 21 959 3126  
Website: www.uwc.ac.za

24 JUNE 2015

TO WHOM IT MAY CONCERN

RE: PERMISSION TO DO RESEACH

I hereby confirm that permission has been granted to Ms S Nel (Student No: 3503562), a Masters Student in the Psychology Department at UWC, to conduct a research study with Psychology Masters Students in the Faculty of CHS with assistance from her Supervisor towards her Research Project: "The association between perceived stress, coping styles and personality traits in a sample of Psychology Honours students" with Registration No: 15/4/43 as reference.

Yours sincerely

A handwritten signature in cursive script, appearing to read 'Misra'.

MS N LAWTON-MISRA  
REGISTRAR

## Appendix H: Information sheet



# UNIVERSITY OF THE WESTERN CAPE

Department of Psychology

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2283, Fax: 27 21-959 3515

E-mail: [mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

### INFORMATION SHEET

**Project Title:** The associations between perceived stress, coping styles and personality traits in a sample of Psychology Honours students.

#### **What is this study about?**

This is a research project being conducted by *Sanche Nel* at the University of the Western Cape. We are inviting you to participate in this research project because you are currently one of the Psychology Honours students at the university. The purpose of this research project is to ascertain the relationship between perceived stress, coping styles and personality traits in Psychology Honours students at this university.

#### **What will I be asked to do if I agree to participate?**

You will be asked to respond to an email by clicking a link in the email that will take you to an online website where you will complete an electronic survey. The survey will ask you questions about your level of stress, your choice of coping styles as well as your personality traits. The survey should take you approximately 20 minutes to complete as all the questions are short and require you to choose what you are most or least likely to do.

#### **Would my participation in this study be kept confidential?**

The researchers undertake to protect your identity and the nature of your contribution. To ensure your anonymity, the surveys will not contain identifying information. From the email

that is identifiable, the link to the website will be numbered without any identifying information to ensure your confidentiality. If we write a report or article about this research project, your identity will be protected.

### **What are the risks of this research?**

There may be some risks from participating in this research study. All human interactions and talking about self or others carry some amount of risks. We will nevertheless minimise such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

### **What are the benefits of this research?**

This research is not designed to help you personally, but the results may help the investigator learn more about the relationship between stress, coping and personality factors in Psychology Honours students. We hope that, in the future, other people might benefit from this study through improved understanding of these factors and how they relate to this group of students specifically.

If you choose to participate, there is an opportunity to be entered into a lucky draw for one of ten vouchers to the value of R50 airtime that will be randomly allocated after completion of the research.

### **Do I have to be in this research and may I stop participating at any time?**

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

### **What if I have questions?**

This research is being conducted by *Sanche Nel*, Psychology Department at the University of the Western Cape. If you have any questions about the research study itself, please contact:

Principal Researcher: Mrs. Sanche Nel

Dept. of Psychology, UWC

021-9592283/ 0834470224

sanchenel@gmail.com

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Supervisor: Dr. Mario Smith

Dept. of Psychology, UWC

021-9592283/ 0823309284

mrsmith@uwc.ac.za



Head of Department: Dr. M. Andipatin

Dept. of Psychology, UWC

021-9592283

mandipatin@uwc.ac.za

Dean of the Faculty of Community and Health Sciences:

Prof José Frantz

University of the Western Cape

Private Bag X17, Bellville 7535

Chs-deansoffice@uwc.ac.za

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.

**Appendix I: Consent form**



# UNIVERSITY OF THE WESTERN CAPE

Department of Psychology

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2283, Fax: 27 21-959 3515

E-mail: [mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

## CONSENT FORM

**Title of Research Project:** The associations between perceived stress, coping styles and personality traits in a sample of Psychology Honours students.

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

Participant's  
name.....

Participant's  
signature.....

Date.....

Click on the link below to submit your consent form, if you agree to participate in the study.

**SUBMIT**

## **List of tables**

*Table 1 - Demographic Profile*

*Table 2 – Perceived Stress Profile*

*Table 3 – Personality Profile*

*Table 4 – Coping Style Profile*

*Table 5 - Correlation matrix for demographic variables*

*Table 6 - Correlation matrix for demographics with coping*

*Table 7 - Correlation matrix for demographic variables with perceived stress and personality*

*Table 8 – Regression Analysis*

