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Academic motivation, psychological distress and student adjustment in black female first year university students living on campus.

Research Report submitted in partial fulfillment for the degree of

MA in Clinical Psychology

University of the Witwatersrand

School of Human and Community Development

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Abstract

This study was aimed at investigating the relationship between academic motivation, psychological distress, and various aspects of adjustment. The specific aim of this research was to explore the unique contributions of each of the seven types of academic motivation, depression, anxiety and stress in predicting each of four types of student adjustment in the first year of university education. Quantitative data collection methods were used to collect data from a sample of predominantly Black, first-year female students residing within the Wits University campus. The collected data were analysed utilising Pearson's product moment correlations and step-wise multiple regression analyses. Results suggested that psychological distress, particularly depression was a critical factor in academic, personal-emotional and attachment adjustment, whereas anxiety and stress were mostly strongly related to social adjustment. Amotivation and the lack of certain types of intrinsic motivation were also found to be risk factors for poorer adjustment. Implications of this research as well as limitations and directions for future research are discussed.

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Chapter 1

1. Literature Review

1.1 Introduction

The first year of university can be a challenging time for students as they learn to adapt to their new environment. Research suggests that the way a student adjusts to college in the first year of university is a strong predictor of his or her continued adjustment in subsequent years (Credé & Niehorster, 2012), and may even be associated with attrition and academic performance (Baker, 2002; Petersen, Louw & Dumont, 2009).

A recent report by the South African Department of Higher Education and Training (2011/12) documents that institutions of higher education have found difficulty in meeting the desired graduate output rates within the prescribed time frame. This has been voiced as a cause for alarm in higher education. The current priority in The National Plan for Higher Education is to increase the present graduation rate of 15% up to a benchmark of 25%. Concurrent with these concerns around attrition and poor throughput levels, there has been an increased interest in trying to understand the underlying factors and mechanisms involved. Studies around this topic indicate that the prevalent factors contributing to voluntary attrition (Johnes & McNabb, 2004) and throughput levels are financial difficulties, new and challenging goals, weak commitment, isolation, external motivation for learning, and adjustment difficulties (Clinciu, 2013; Tinto, 1996).

Recent estimates suggest that students in their first year of study at university may express high levels of stress, anxiety and depression (Bojuwoye, 2010). Stallman's (2010) findings around these issues at the University of Queensland indicated that its student population were at increased risk of mental health problems when compared with the general population of Brisbane, Australia.

Similarly, recent studies conducted at the University of the Witwatersrand in South Africa (hereafter referred to as Wits University) reveal that the undergraduate population reports high levels of psychological distress (Wits First Year Experience Survey 2012; Wits Mental Wellbeing Survey 2013 Report). The Wits Mental Health Survey of 2013 presents

findings that suggest that these high levels of psychological distress may be linked to the level (year) of study, financial difficulties, and the student's relationship status. Specifically, they show that students who are in their first year of study, those who are divorced, separated or widowed, or/and those who experience financial inadequacies are more prone to reporting higher levels of psychological distress.

In addition, the Wits First Year Experience Survey 2012 reports that a lack of motivation may also be a contributing factor to student attrition. In this study, it was found that a total of 24.97% students were considering dropping-out of university, partly due to low academic motivation levels. Taken together, these findings suggest that at least a quarter of students struggle with poor motivation, and an even greater proportion experience psychological adjustment difficulties during their first year of study.

The connections between motivation, student adjustment and psychological outcomes such as stress, anxiety and distress are neither explored nor addressed in the abovementioned research. However, it is postulated here that these might be inextricably linked, and deserve further exploration. This study aims to investigate the associations between student motivation, adjustment and psychological distress. Psychological distress will be operationalised as the levels of stress, anxiety and depression, as these are the most commonly reported emotional states in this population. The research will particularly investigate the unique contribution of academic motivation to the variance in student levels of stress, anxiety and depression.

The paper begins by providing a brief background on the relationship between adjustment to university, psychological distress, and the high rate of attrition in South African Institutions of Higher Learning. It then proceeds by explaining the purpose of the study. Thereafter, the main structure of the paper begins by illustrating the Rationale, explaining the motivation for the study, supported by the literature review, which gives a brief overview of the current and relevant research around the topic of student adjustment and motivation. This is followed by an outline of the conceptual and theoretical framework of the study regarding academic motivation.

The method section gives an account of how the research was undertaken. The research design, criteria for participants, issues pertaining to ethics, data collection, and the data analysis procedure is discussed in detail within this section. This is followed by the results chapter which provides a detailed account of the data gathered during the study. The

paper concludes with a discussion chapter which provides an in-depth analysis of the findings of the study and explores in detail the implications thereof.

1.2 Rationale

The impulse to conduct this study developed from an increasing awareness of mental health problems among the student population (Stallman, 2010), and the alarmingly high levels of attrition and drop-out rates, particularly among first-year students in South African universities (The South African Department of Higher Education and Training, 2011). Furthermore, students in South African universities are increasingly presenting at student counselling facilities with high levels of psychological distress (Higher Education in Context, 2011). In line with these observations, Wits University reports that growing numbers of first-time students with mental health difficulties are seeking help from the campus wellness structures (Wits Mental Health Survey 2013 Report).

The Counselling and Career Development Unit (CCDU) is one such structure at Wits University. The main services offered to students by the CCDU are: career development programs; personal therapy; HIV/AIDS counselling and holistic intervention programs; life skills development; graduate recruitment programs; and facilitation of student placement for part-time employment. The CCDU reports that large numbers of undergraduate students, most of whom are in their first year of study, seek their services as they try to deal with the many challenges they encounter in their daily lives at the university (Wits First Year Student Experience Survey, 2012).

Commonly reported problems include (but are not limited to) poor concentration and learning difficulties; psychological distress (stress, anxiety, and depression); feelings of emotional and financial vulnerability; anger and mood problems; and mental illness (Clinciu, 2013; Wits Mental Health Survey 2013 Report). Such a high rate of adjustment difficulties and psychological distress necessitates the need for research to explore the mechanisms and factors that may underlie or perpetuate these difficulties. This research could ultimately inform preventative efforts that could be implemented to buffer negative outcomes such as the high drop-out rates and high levels of psychological distress.

In the past, several studies have been conducted around the issue of college/university students and adjustment (Bojuwoye, 2010; Chinaveh, Ishak & Salleh, 2010; Clinciu, 2013; Fuatai & Soon-Schuster, 2001; Wintre &Yaffe, 2000). For instance, Clinciu (2013) conducted a study to explore the relationship between adjustment and stress among university students in Romania. In this study, adjustment was operationalised as the process of "...passing from an initial stage of generating emotional tension and stress towards a final stage in which there prevail the state of wellbeing and a functioning adequate to the new requirements" (Clinciu, 2013, p. 719). Findings of the study indicated that stress (as pointed out by the emotional-affective component of the adjustment scale) and adjustment to college were negatively correlated. This finding strongly suggests that positive emotions - a component of psychological wellness - are crucial for the confident adjustment of college students. This indicates that those students who had lower stress levels adapted better to the university environment.

Also, South African studies (Bojuwoye, 2010; Peterson *et al*., 2009) indicate that financial difficulties - with the associated stresses - may be strongly related to a student's sense of inadequacy around adjusting to university life and its academic demands. These studies have connected adjustment problems to financial and socio-economic factors, and these are well documented. However, the above research has omitted to explore in depth the contribution of motivation to student adaptation. To provide a better understanding of why such a large percentage of first-year students drop-out of university, and why those students who persevere manage to complete their education, it is vital to explore the motivational factors involved, as alluded to in other research (Allen, 1999). This study aims to highlight factors that affect the process of adjustment, as well as serve to inform holistic programs that could be implemented to improve student adjustment, since this would ultimately improve throughput at the university.

Motivation plays a crucial role in the process of education. It has been related to outcomes such as curiosity, learning, performance, and persistence (Vallerand, Pelletier, Blais, Briere, Senecal & Vallieres, 1992). Academic motivation is particularly important, and studies suggest that academically motivated students seem to deal better with the demands of their new environment during their first year of college/university. For example, Petersen *et al*., (2009) found that intrinsic motivation was a significant predictor of adjustment. Taken together, this research points to the necessity for further exploration of the relationship between academic motivation and student adjustment. Research on the topic of adjustment

and motivation is important at this stage of higher education due to the documented decline of throughput levels (Mtshali, 2013), and the pressing need to understand the associated factors.

Furthermore, particularly at Wits University, the significance of gaining more understanding around factors influencing students' adjustment processes is necessary for the university to establish better supportive structures for students that have been identified as 'at risk'. Over and above, there is an equally pressing need to uncover the circumstances that contribute to the vulnerabilities of students, to advise for preventative interventions.

Thus, this study aims to investigate the level of association between academic motivation and various forms of adjustment to university. In addition, a secondary aim is to explore the unique contribution of various forms of academic motivation in predicting levels of depression, anxiety, and stress in first year university students. Although some research on adjustment and motivation has been undertaken in the South African context, these variables have not been theoretically linked to other indices of adjustment such as psychological distress.

1.3 Literature Review

1.3.1 Higher education in South Africa

The graduation rate of university students is a priority for The South African Department of Higher Education and Training (2011), yet current reports reflect that this rate is low. The Department of Higher Education and Training's first annual statistical report (2013), states that the graduation rate among university and college students is 15% (Mtshali, 2013) as opposed to the set 25% benchmark (Higher Education in Context, 2011). According to South African and European studies (Peterson *et al*., 2009; Clinciu, 2013), reasons suggested for the high drop-out and late graduation rates at institutions of higher education range from financial inadequacies, new and difficult goals, weak commitment, and isolation, through to external motivation for learning, and academic and adjustment difficulties (Higher Education in Context, 2011).

Adjustment difficulties must be included among these prevalent reasons for the current high attrition and the low national graduation rates in South African universities. While the different factors that are associated with adjustment seem to be relatively well

understood, the relationships between them are less researched. There is consequently a pressing need for tertiary institutions to keep re-examining and exploring the issues associated with mental health and adjustment (Higher Education South Africa, 2011).

1.3.2 Adjustment to university

Adjustment is defined by Baker and Siryk (1989) as "a multi-dimensional process of interaction between an individual and his/her environment, to bring about harmony between the demands and needs of the individual and his/her environment" (cited in: Petersen, Louw & Dumont, 2009, p. 100). It is essentially a process of establishing equilibrium and adapting to the demands of a new environment, situation, and set of circumstances. For the purposes of this research, the terms *adjustment* and *adaptation* will be used interchangeably as they refer to the same process.

Baker, McNeil and Siryk (1985) further operationalise adjustment to college as a multi-faceted concept consisting of four aspects: academic, social, personal-emotional, and attachment (or institutional) adjustments. Academic adjustment is characterised by the college (or university) experience in terms of the educational demands. Social adjustment relates to the various interpersonal-societal demands that are inherent in the experience of being a college/university student. The personal-emotional facet relates to the student's psychological and physical feelings, that is, whether the student is experiencing psychological distress and related somatic symptoms. Lastly, an institutional (goal commitment) adjustment investigates the student's feelings about being in college/university in general; important factors being: college attendance, and the quality of the relationship established between the student and the institution. This operationalisation will be adopted for the purposes of the present study.

Adjustment to the university environment plays a crucial role in academic success and other university outcomes (Davidowitz & Schreiber, 2008), and there is a vast body of research on this topic. There has been a pursuit towards exploring and understanding the relationship between adjustment and related factors to best facilitate optimal adjustment (Credé & Niehorster, 2012). Additionally, research has revealed variables that serve as barriers to adjustment to the university environment. Some of these barriers have been described as financial difficulties; isolation and a lack of social support; inability to cope with

academic, social and personal stress; anxiety; depression; and perceived academic overload (Clinciu, 2013; Davidowitz & Schreiber, 2008). Associated with better outcomes in this area of research are adequate levels of social and institutional support, effective coping strategies, and campus counselling and student development facilities (Chinaveh *et al*., 2010; Davidowitz & Schreiber, 2008). Additionally, self-regulated learning and intrinsic motivation have also been found to be associated with better adjustment.

1.3.3 Psychological distress

The mental health of university students is considered an important public health issue worldwide (Stallman, 2010). The mental wellbeing of students has a direct effect both on the academic performance of the students and on other areas of their lives. In turn, it has an impact on one of the primary reasons that a student chooses to attend university: to attain a tertiary education.

To establish whether university students are a population which is at risk of mental illness, a study in Australia benchmarked the mental health of university students with the general public. The results revealed that students in Australia report more psychological distress in comparison to the general public (Stallman, 2010). Such literature highlights the global need to pay attention to the mental health of university students with the aim of early intervention.

Psychological distress is one of the predominant barriers to the adjustment of students at university. A South African study documents that the second most frequently reported concern among a sample of undergraduate university students at the University of Cape Town is depression, with a combination of tiredness and fatigue being the third most frequently reported conditions (Schreiber, 2007). This report highlights the unease regarding high levels of psychological distress among undergraduate university students in South Africa.

Psychological distress is defined as “the unique discomforting, emotional state experienced by an individual in response to a specific stressor or demand that results in harm, either temporary or permanent, to the person” (Ridner, 2004, p. 539). For the purposes of this study, psychological distress will therefore be defined by the three manifesting conditions of depression, anxiety and stress, as described by Lovibond and Lovibond (1995).

Depression, anxiety, and stress are highly correlated psychological concepts (Lovibond & Lovibond, 1995); the diagnosis of one usually predicts the presence of the other two syndromes. Depression, as a psychological disorder, is defined by the presence of any five of the following symptoms: a chronic depressed mood; markedly diminished interest or pleasure in nearly all previously enjoyed activities; significant weight loss (when not dieting) or weight gain, or a decrease or increase in daily appetite; sleep disturbances; psychomotor agitation or retardation; fatigue; feelings of worthlessness or excessive guilt; diminished concentration or indecisiveness; and recurrent suicidal ideation without a specific plan or attempt for committing suicide (American Psychiatric Association, 2013; Burke, 2009). The duration and severity of these above-mentioned symptoms classify the depressive condition.

Anxiety often manifests concurrently with depression. Anxiety is a future-orientated mood state that is accompanied by strong negative affect (Barlow, 2004). While anxiety is a normal emotional state, excessive levels of anxiety can cause psychological distress. Abnormal anxiety is characterised by an intense yet false sense of internal (or external) life-threatening stimulus. Generalised Anxiety Disorder constitutes of excessive worry, restlessness, irritability, and muscle tension, together with fatigue, sleep disturbance, and poor concentration symptoms that are also indicative of depression.

Lastly, stress arises when the demands of the environment exceed the perceived capacity to cope with those demands (Barlow & Durand, 2011). As mentioned before, the specific term ’psychological distress’ will be used in the present study to refer collectively to anxiety, depression and stress, and they will be measured in this research. The symptoms integral to these definitions have led to my hypothesis that students who express psychological distress will be more likely to report as deficient in all domains of adjustment, as measured by the Student Adjustment to College Questionnaire (SACQ).

For this purpose, it is imperative for research to continue to explore and investigate the issues that affect the mental health of university and college students. This is important to enable further development of preventative interventions to decrease the risk and improve the psychological wellbeing of students, and to further monitor outcomes over time (Stallman, 2010).

In the pursuit of improving the psychological wellbeing of students at university, factors that could contribute positively to the psychological wellbeing of the students should be equally explored. Research has indicated the factors that are associated with more positive

adjustment as social and institutional support; effective coping strategies which contribute to more positive emotions, which has in turn been correlated to positive adjustment; a sense of purpose (Wintre & Yaffe, 2000); and academic motivation (Peterson *et al*., 2009).

1.3.4 Motivation and its relationship to academic adjustment

Motivation has been said to be one of the most important factors related to academic success (Petersen *et al*., 2009). Research has found links between academic motivation and adjustment (Davidowitz & Schreiber, 2008). For instance, Baker (2004) correlated [different types of] motivation with adjustment, stress, wellbeing, and subsequent academic performance. The results showed a significantly positive relationship between intrinsic motivation and adjustment. A thorough understanding of the different types of motivation is explained in the Self-Determination Theory (SDT).

The SDT is a macro-theory around the concept of human motivation (Reeve, Deci & Ryan, 2004). The theory primarily provides an approach to understanding and enhancing student motivation. The SDT stands on the notion that all students, regardless of how unskilled or impoverished their backgrounds are, possess inherent growth tendencies and innate psychological needs that provide them with a basis for their autonomous motivation and psychological development.

The SDT describes motivation as either being intrinsic, extrinsic or amotivated. Intrinsically motivated behaviour occurs when behaviour and activities are internally and autonomously driven. Extrinsically motivated behaviour is instrumental, in other words, the interest in certain activities and the reward received from performing these activities originates from outside the individual (Deci *et al*., 1991). Lastly, amotivation is described by individuals who perceive their behaviour to be caused by external likelihoods that are out of their control, in other words, this is behaviour that is not self-intended (Peterson *et al*., 2009).

Peterson and his colleagues (2009) highlight how the SDT literature has indicated that high levels of [intrinsic] motivation are linked to better adjustment to university, and subsequent better academic performance. For the purpose of this study, academic motivation is operationally defined as “one’s perceived reasons for engaging in a given activity...be they for the activity itself or for reasons lying outside the activity” (Vallerand *et al*., 1992, p. 1016).

Motivation has been strongly suggested as a positive predictor of academic adjustment. Dennis, Phinney and Chuateco (2005) evaluated the role of motivational characteristics and environmental social supports, and their contribution towards academic outcomes, namely academic performance, academic adjustment, and commitment to college. The findings suggested that [personal/career-related] motivation was a positive predictor to college adjustment. The role of motivation in the facilitation of [academic, social, personal-emotional, and institutional] adjustment is that of a buffering effect. Motivated students seem to deal better with the demands of their new environment during their first year at college/university. These students seem to have a better - or more optimistic - perception of the problems that they are faced with, leading to their employment of effective problem solving skills and coping strategies (Baker, 2003). Academic motivation has also been strongly associated with more engaged learning, in turn contributing to better academic performance.

It is my contention that, academic motivation is an area that offers great potential for understanding the circumstances around adjustment among first-year university students. Consequently, preventative interventions to foster different types of motivation could be both improved on, and further developed, to address the issue of poor adjustment with at-risk students at an earlier stage in their academic careers, with the long-term aim of promoting their better adaptation to changing situations.

The goal of this study was to investigate the complex relationships that develop between student motivation, psychological distress and various aspects of adjustment. Given the exploratory nature of the undocumented relations between some of these variables, this study aimed to investigate the unique contributions of the different categories of motivation as well as depression, anxiety and stress in predicting the four types of student adjustment.

1.4 Research Question

The present study explored only one key research question: when academic motivation and the psychological distress variables are considered together, which variables are most predictive of student adjustment in the first year of study?

Chapter 2

2 Methodology

2.1 Design

The study followed a quantitative approach by applying a non-experimental and correlational design. According to Gravetter and Forzano (2009), quantitative research is based on measuring variables from which numerical value scores can be attained. These values can then be submitted for statistical analysis for the purposes of summary and interpretation. Here, the data was collected by means of the completion of a paper-pencil questionnaire that took the participants approximately 20 to 30 minutes to complete.

2.2 Participants

The sample consisted of 101 female student participants, all residing within two women's residences of Wits University. Female students were selected to participate, mainly due to practical difficulties in accessing male students who resided in the campus' men's student residences. One of my research criteria was that, to qualify as a participant, the students had to be in their first year of university, with no prior university experience. Most of participants were Black (97%), 1.0 % was Indian and 2% were Coloured. Most fell within the age bracket of 18 to 25 years (99%), and 1.0 % of the participants fell within the age range of 26 to 35 years.

2.3 Measures

The following self-report questionnaires were included in the battery:

2.3.1 Depression, Anxiety and Stress Scale (DASS, Lovibond & Lovibond, 1995).

In this research, the DASS (in Appendix 4: Section 2) was used to measure psychological distress. The DASS is a 42-item questionnaire comprising of three self-report scales that are specifically designed to measure the negative emotional states of depression, anxiety and stress. The three scales each contain 14 items (in the 42-item scale) that are divided into subscales of 2 to 5 items with similar content. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects,

situational anxiety, and subjective experience of anxious affect. The stress scale items are sensitive to levels of chronic non-specific arousal. It therefore assesses difficulty in relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient. The DASS has a Cronbach alpha of the three sub-scales: .84, .97 and .91 in terms of the internal consistency (Antony, Bieling, Cox, Enns, & Swinson,1998).

2.3.2 Student Adaptation to College Questionnaire (SACQ, Baker & Siryk, 1989).

The Student Adaptation to College Questionnaire (SACQ, Baker & Siryk, 1989) (in Appendix 4: Section 4) was used to measure student adjustment to university life. The SACQ is a self-report questionnaire comprising of 67 items and is divided into four subscales: academic, social, personal-emotional, and attachment adjustment. The alpha coefficient for the full-scale ranged from .92 to .95 (Baker & Siryk, 1989). The scale has been used in South African studies (Peterson *et al*., 2009; Davidowitz & Schreiber, 2008).

2.3.3 Academic Motivation Scale (AMS; Vellerand et al., 1992).

The AMS (in Appendix 4: Section 3) measures motivation, consists of 28 items, and is based on the theoretical model proposed by Deci and Ryan (1985). The scale has 7 sub-scales which assess three types of motivation: intrinsic (and its three sub-types: to know, to accomplish things, and to experience stimulation), extrinsic (external, introjected, and identified regulation), and amotivation. A 7-point scale is used to measure the extent to which each item corresponds to the reasons why the participant is at university. Baker (2004) indicates that previous studies have used the AMS, and it reveals high internal ($\alpha = .81$) and test-retest reliability ($r = .79$) (in Vellerand *et al.*, 1989, 1992). Motivation is also defined as an independent variable which will play a mediating role along with the demographic variables.

2.3.4 Socio-demographic information.

A self-constructed demographic questionnaire (in Appendix 4: Section 1) requiring participants to provide their socio-demographic variables was included in the full battery. Participants were requested to indicate their age; gender; race; living arrangements; faculty; relationship status; financial arrangements; home of origin; nationality; and home language. These variables assist in identifying the population groups that are most at risk of psychological distress, poor adjustment and/or low academic motivation.

2.4 Procedure

As soon as ethical clearance was provided by the University of the Witwatersrand Human Research Ethics Committee (HREC) (Appendix 5); the data gathering process was ready to begin. However, due to conflicting availability with the male residences, the researcher was unable to collect data from the male students living on campus. Data was therefore only gathered at the following female only residences: Jubilee Hall, Sunnyside Residence and lastly; Girton, Medhurst and Rith Halls of residence.

The researcher began the data collection process by approaching accommodation officers as per residential house. She presented the accommodation officers each with a formal letter requesting assistance with regards to being connected with the students who would be willing to participate in her research. She presented the officers with a brief description and purpose of the research. Once the officers agreed to assist, meetings with each residential house was set up with specific dates and venues for data collection.

The students were available in the evenings after their supper time and thus the data gathering took place then. The researcher met with the groups of female students one residence house at a time. When she met with each group, she began by introducing herself and giving the students a briefing of the purpose of the research. They were then taken through the consent form; issues of confidentiality were addressed, and they were informed of the possible risk factors. They were consequently made aware of psychological services that were available on campus in case the questionnaire triggered any distress. The participants were guaranteed of anonymity and were therefore not required to provide their names on the questionnaire. The participants were assured that they had the right to choose whether to participate or not, and it was made clear that they were free to withdraw at any point of the process without any consequences. Informed consent was given by all the participants and all of them completed the questionnaire voluntarily. The issue of confidentiality was upheld throughout the entire process of data collection.

Due to time constraints, data collection was stopped with only 101 students who had participated. Thereafter, the raw data was captured and ready for analysis via statistical analysis.

2.5 Data analysis

The objective of the study was to investigate the relationship between student motivation, selected facets of psychological distress and various aspects of adjustment. The research was specifically intended to explore the unique contributions of various types of motivation, and each of depression, anxiety and stress, in predicting the four types of student adjustment. A preliminary analysis was conducted to calculate all the descriptive statistics and inter-correlations of all key variables. Next, the parametric assumptions of the regression procedure were tested. Since these assumptions were largely met with no gross violations, parametric tests were employed. To test the main research question of this research, a series of four stepwise forward multiple regression analyses were conducted where each type of student adjustment (totaling four) was used as a criterion (dependent) variable, and all the subscales of academic motivation and psychological distress were used as predictor variables.

Chapter 3

3 Results

This section will report of the preliminary and main analyses conducted to explore the relative unique contributions of all the psychological distress and the academic motivation variables in predicting each of academic adjustment, social adjustment, personal-emotion adjustment and attachment adjustment.

3.1 Demographic description of the sample

Table 1 illustrates that the demographic sample consisted of 100% female participants: 97% Black; 1.0 % Indian; and 2% Coloured. 99% of the participants fell within the age bracket of 18 and 25 years; and 1.0 % within the age range of 26 and 35 years. All the respondents were first-year students in their first historical year of university.

Table 1: Demographic description of study participants

Variable		Frequencies	%
Gender	Female	100.0	100.0
	Male	0.0	0.0
Age	18-25	99.0	99.0
	26-35	1.0	1.0
Racial group	Black	96	97.0
	Indian	1	1.0
	Coloured	2	2.0

3.2 Descriptive statistics of all key variables

Table 2 below depicts the means, standard deviations (*SD*) and ranges for all key variables. In addition, the Cronbach's alphas for the measures as well as the subscales are depicted in the right had column to assess for reliability. Reliability coefficients were good, although the coefficients for adjustment were acceptable. The reliability for attachment

adjustment was very poor in this sample. Results for this measure should therefore be interpreted with extreme caution.

Table 2: Descriptive statistics and reliability coefficients

Variable		Mean	SD	Min.	Max	Cronbach's alpha
Psychological Distress	Depression	7.56	5.116	0	20	.822
	Anxiety	7.15	4.723	0	20	.758
	Stress	8.92	4.740	0	21	.783
Academic motivation	Int. Know	16.35	4.392	4	21	.633
	Int.Accomp	19.44	5.99	4	28	.794
	Int. Stim	16.56	6.45	8	28	.804
	Ext.Ident	23.85	4.59	4	28	.739
	Ext.Introject	20.28	6.40	8	28	.809
	Ext.ExtReg	23.14	5.22	3	28	.728
	Amotivation	7.68	5.68	3	28	.840
Student Adjustment	Academic adj	129.131	24.143	61	198	.536
	Social adj	111.88	22.301	32	172	.488
	Pers-emot adj	75.197	17.906	51.5	120	.579
	Attachment adj	95.2	19.578	216	135	.103
	Full-Scale adj	370.495	59.893	-	-	.697

3.3 Correlations between key variables

A Pearson Product moment correlation analysis was conducted and the results are depicted in Table 3 below. Correlation values above 0.1 are considered to reflect a small effect size, values above 0.3 reflect a medium effect size, and values above 0.5 reflect large effect (Field, 2005). See inter-scale correlations below in Table 3.

Table 3: *Intercorrelation matrix of all key study variables*

Variable	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 DEP	.66**	.65**	.10	.05	.05	-.05	.13	-.12	.26**	-.40**	-.49**	-.28*	-.40**	-0.47**
2 ANX	1	.68**	.10	.06	.09	-.08	-.01	-.05	.20*	-.31**	-.38**	-.34**	-0.26**	-.39**
3 STRESS		1	.01	.11	.09	.06	.05	.06	.00	-.26**	-.48**	-.35**	-.20*	-.38**
4 Int. Know			1	.65**	.65**	.60**	.26**	.29**	-.37**	.24*	.11	.05	.34**	0.26**
5 Int. Accomp				1	.61**	.50**	.48**	.26**	-.24*	.28**	.11	.07	.37**	.29**
6 Int. Stim					1	.38**	.32**	.11	-.06	.16	.14	.08	.37**	.26**
7 Ext.Ident						1	.40**	.57**	-.37**	.20*	.15	.06	.35**	.25**
8 Ext.Introject							1	.38**	-.05	.07	-.01	.07	.14	.09
9 Ext.ExtReg								1	-.30**	.14	.18	.01	.21 *	.18
10 Amotivation									1	-.35**	-.12	-.02	-.35**	-.27**
11 Attach.Adj										1	.35***	.76***	.64***	.83**
12 Personal adj											1	.36***	.52***	.71**
13 Social adj												1	.43***	.75**
14 Academic adj													1	.86**
15 FS-Adj														1

Note. *p < .05, **p < .01, *** p < .001

3.3.1 Psychological distress (depression, anxiety & stress) and Adjustment

According to the above inter-scale correlation matrix, each psychological distress variable, namely depression (DEP), anxiety (ANX) and stress (STRESS) was significantly negatively associated with all four domains of adjustment suggesting that students who reported higher levels of depression, anxiety and stress were also more likely to report lower levels of attachment, personal-emotional, social, academic and overall adjustment in this sample.

3.3.2 Psychological distress (depression, anxiety & stress) and Academic motivation

According to the above inter-scale correlation matrix, the psychological distress variables were not significantly associated with any of the intrinsic or extrinsic motivation variables. However, anxiety and depression were each significantly and positively correlated with the amotivation domain of academic motivation. Stress was not correlated with any of the seven domains of academic motivation in this sample.

3.3.3 Academic motivation and Adjustment

A Pearson's product moment correlation analysis as depicted in the table above explored the relations between various types of academic motivation and students' adjustment. A total of seven types of academic motivation were explored. Specifically, three of these were types of intrinsic motivation, three were extrinsic motivation and the seventh was amotivation. Additionally, four types of academic adjustment were used in this correlation analysis in addition to the overall (full scale) adjustment.

Further examination of the correlation between intrinsic motivation and adjustment suggested that only an intrinsic motivation towards knowledge and towards accomplishment were associated to attachment adjustment. All three types of intrinsic motivation were positively associated with academic adjustment, and with overall adjustment in this sample. Intrinsic motivation was not associated with personal-emotional or social adjustment.

External motivation subdomains generally yielded mixed findings. An external motivation towards identified regulation was the only domain associated with overall adjustment. In addition, it was positively correlation with attachment adjustment and academic adjustment yet not correlated with personal-emotional or social adjustment. An external motivation towards introjected regulation was not associated with any of the

academic adjustment subdomains in this sample. Finally, an external regulation towards extrinsic motivation was only associated with academic adjustment and not with any of the other domains of student adjustment. Lastly, amotivation (a lack of motivation) was significantly negatively associated with attachment adjustment and academic adjustment in this sample.

In sum, the findings above suggest that psychological distress in general is negatively associated with student adjustment but not with academic motivation in this sample. Additionally, it was found that all types of motivation (intrinsic, extrinsic and amotivation) were particularly associated with attachment adjustment and academic adjustment. Personal-emotional and social adjustment were not found to be significantly related to academic motivation in this sample.

3.4 Main analyses

3.4.1 Parametric assumptions

For the main analyses to be run, it was necessary to test that the data did not violate any of the parametric assumptions for conducting regression analyses. Specifically, the independent variables (psychological distress variables) were assumed to be at least interval data. First, normality of the data was checked to establish whether to run parametric analyses. In terms of psychological distress, depression (Shapiro-Wilk's 'w' = 0.96, p = 0.004) and anxiety (Shapiro-Wilk's 'w' = 0.97, p = 0.01) were not expected to be normally distributed in the population of students. However, stress (Shapiro-Wilk's 'w' = 0.98, p = 0.15) is expected to be normally distributed in a sample of undergraduate female university students (Ross, Neibling & Heckert, 1999). Adjustment (full-scale) was normally distributed as would be expected (Shapiro-Wilk's 'w' = 0.99, p = 0.35). Therefore, these data have met the assumption of normality. In addition, the assumption of mutlicollinearity was tested using tolerance and variance inflation statistics in *SAS* to identify and in two instances, remove data that threatened this assumption. Homoscedastisity was assessed using scatter plots. No violations of this assumption were found. Consequently, no gross violations of the parametric assumptions were identified and the data were analysed using parametric statistics.

3.4.2 Main Analysis: Research question

The main research question of this research aimed to explore the unique contributions of the seven academic motivation variables, as well as the three psychological distress variables in predicting the four domains of student adjustment in this sample of university students. A stepwise forward multiple regression was conducted to fulfill this aim. The unstandardised (*b*) and standardised (β) regression coefficients together with coefficients of determination were examined. Results of the multiple regression analysis are represented in Tables 4 to 7 below.

Table 4: Stepwise multiple regression analysis: Academic adjustment

	β	***t***	**F**	**R^2**	**ΔR^2**
Step 1			18.39***	.16	.16
Depression	-.40	-4.29***			
Step 2			21.29***	.31	.15
Depression	-.41	-4.81***			
IM_Accomplish	.38	4.53***			
Step 3			16.45***	.34	.03
Depression	-.41	-4.94***			
IM_Accomplish	.24	2.34*			
IM_Stimulate	.23	2.24*			
Step 4			14.23***	.38	.04
Depression	-.37	-4.45***			
IM_Accomplish	.17	1.62			
IM_Stimulate	.25	2.49**			
Amotivate	-.20	-2.31*			
Step 5			11.56***	.38	.00
Depression	-.37	-4.42***			
IM_Accomplish	.14	1.29			
IM_Stimulate	.24	2.31*			
Amotivate	-.17	-1.86			
EM_Identified	.10	.96			

Note. N = 99; *p < .05, **p < .01, ***p < .0001

In Step 1 of the stepwise regression predicting academic adjustment from academic motivation and psychological stress indices (Table 4 above), the results suggest that depression significantly accounted for 16% of the variance in academic adjustment, $F_{(1, 98)}$ = 18.39, p < .0001. At Step 2, an *intrinsic motivation: towards accomplishment* was added and accounted for a further 15% $t_{(1)}$ = 4.53, p < .0001 of the total variance in academic

adjustment. In Step 3, an *intrinsic motivation: to experience stimulation* was added and made a small yet significant and unique contribution of 3%, $F_{(3, 98)} = 16.45$, $p < .0001$. These three variables cumulatively accounted for 34% of the total variance in academic adjustment. The addition of amotivation in Step 4 accounted for 38% of the total variance in academic adjustment; with amotivation adding a unique contribution of 4% of the variance in academic adjustment, $F_{(4, 98)} = 14.23$, $p < .0001$. Finally, in Step 5, the addition of *extrinsic motivation: identified* did not make any significant contribution to the variance in academic adjustment. Taken together, it appears that depression and *intrinsic motivation: toward accomplishment* are the two most significant variables influencing academic adjustment to university. Furthermore, the direction of the beta coefficients indicates that depression is inversely proportional to academic adjustment, while *intrinsic motivation: toward accomplishment* and academic adjustment are positively related.

In the following analyses, a stepwise multiple regression analysis was conducted to assess the unique contributions of each of the seven types of academic motivation as well as depression, anxiety and stress in predicting social adjustment. Results are depicted in Table 5.

Table 5: Stepwise multiple regression analysis: Social adjustment

	β	***t***	**F**	**R^2**	**ΔR^2**
Step 1			13.78***	.12	.12
Stress	-.35	-3.71***			
Step 2			8.08***	.14	.02
Stress	-.23	-1.84			
Anxiety	-.19	-1.49			
Step 3			5.86**	.15	.01
Stress	-.23	-1.87			
Anxiety	-.19	-1.52			
IM_Stimulate	.11	1.17			

Note. N = 99; *p < .05, **p < .01, ***p < .0001

Table 5 above illustrates that overall, the biggest contributor to the variance in social adjustment was stress, $F_{(1, 99)} = 13.78$, $p < .0001$, which accounted for 12% of the variance. The addition of anxiety at Step 2 and an *intrinsic motivation: to experience stimulation* at

Step 3 only added a non-significant 2% and 1% to the variance respectively. In total, an *intrinsic motivation: to experience stimulation,* Stress and Anxiety collectively accounted for 15% of the total variance in social adjustment. According to the direction of the beta coefficients, students with higher levels of stress are more susceptible to report poorer social adjustment to university.

The third level of analysis explored the unique contributions of academic motivation and psychological distress in predicting attachment adjustment. Results are depicted in Table 6 below.

Table 6: Stepwise multiple regression analysis: Attachment adjustment

	β	***t***	**F**	**R^2**	**ΔR^2**
Step 1			14.95***	.13	.13
Depression	-.36	-3.87***			
Step 2			13.78***	.22	.09
Depression	-.38	-4.24***			
IM_Accomplish	.30	3.33***			
Step 3			11.22***	0.26	.04
Depression	-.32	-3.53***			
IM_Accomplish	.25	2.73**			
Amotivate	-.21	-2.23*			
Step 4			8.83***	.27	.01
Depression	-.22	-1.84			
IM_Accomplish	.25	2.79**			
Amotivate	-.23	-2.43*			
Stress	-.14	-1.22			

Note. N = 99; *p < .05, **p < .01, ***p < .0001

In Step 1 of the stepwise multiple regression using forward selection (predicting attachment adjustment from all three psychological distress variables and all seven motivation variables), depression accounted for the largest proportion of the variance in attachment adjustment, with a unique contribution of 13%, $F_{(1, 99)} = 14.95$, $p < .0001$. The examination of the direction of the beta coefficients indicate that students who reported higher levels of depression in this sample, were also more likely to report lower levels of attachment adjustment during their first year of study in this sample. In Step 2, together,

depression and *intrinsic motivation: toward accomplishment* collectively accounted for 22% of the total variance in attachment adjustment, suggesting that an *Intrinsic motivation: toward accomplishment* made a unique and significant contribution of 9% ($t_{(1)} = 3.33$, $p < .0001$). This suggested that students who reported lower levels of depression, and higher intrinsic motivated to accomplish their goals were more likely to feel better attached to the institution of higher learning. The addition of amotivation in Step 3 added a significant unique contribution which accounted for a further 4% of the total variance in attachment adjustment, $F_{(3, 99)} = 11.22$, $p < .0001$). The final step was Step 4 as no further variables made a significant unique contribution in accounting for the variance in attachment adjustment. Stress was the final variable added in Step 4 and it made a non-significant contribution of 1% in accounting for the total variance in attachment adjustment. This suggests that stress is not a significant predictor of attachment adjustment whereas depression is.

A final set of analyses were conducted to explore the unique contributions of psychological distress and academic motivation in predicting personal-emotion adjustment. Table 7 below depicts the findings of these analyses.

Table 7: Stepwise multiple regression analysis: Personal- emotional adjustment

	β	***t***	**F**	**R^2**	**ΔR^2**
Step 1			30.36***	.24	.24
Depression	-.49	-5.51***			
Step 2			19.71***	.29	.05
Depression	-0.31	-2.78**			
Stress	-0.29	-2.67**			
Step 3			14.74***	.32	.03
Depression	-.30	-2.79**			
Stress	-.31	-2.82**			
IM_Stimulate	.16	1.92*			
Step 4			11.9***	.34	.02
Depression	-.26	-2.39*			
Stress	-.34	-3.07**			
IM_Stimulate	.15	1.78			
EM_External_Regulation	.14	1.62			

Lastly, Table 7 shows that depression is a significant predictor of personal-emotional adjustment for this sample. In Step 1, depression accounted for 24% of the total variance in personal-emotional adjustment, $F\ (1, 98) = 30.36$, $p < .0001$. The direction of the beta correlation was negative, implying that the more depressed a student is, the less likely they are to report personal-emotional adjustment. Step 2 suggests that, adding stress accounted for a further 5% of the variance and a total 29% of the total variance in personal-emotional adjustment in conjunction with depression, $t_{(1)} = 2.67$, $p < .01$. In Step 3, an *intrinsic motivation: to experience stimulation* was added, and together with depression and stress, they collectively accounted for 32% of the total variance in personal-emotional adjustment, while *intrinsic motivation: to experience stimulation* made a unique contribution of 3% ($F_{(3, 98)} = 14.74$, $p < .0001$). Finally, *Extrinsic motivation: external regulation* was added to depression, stress, and *intrinsic motivation: to experience stimulation*, which resulted in them collectively accounting for 34% of the total variance in personal-emotional adjustment. *Extrinsic motivation: external regulation* made a non-significant unique contribution of 2%. Analysis was stopped there.

In sum, these results suggest that the biggest predictor of all types of adjustment in this sample was depression. Stress and anxiety were found to be strong predictors of social adjustment while depression was not. Various aspects of academic motivation were found to be predictive of academic motivation. These will be discussed in greater detail in the following discussion section.

Chapter 4

4.1 Discussion of findings

A transition of any kind often proves to be a psychologically demanding period. This is particularly true for the transition from basic to higher education. Students going to university for the first time often find themselves embroiled in a cumbersome period of adjustment. Academic motivation plays a pivotal role in facilitating the said transition.

The aim of this paper was to investigate the relationship between academic motivation, psychological distress, and various aspects of adjustment; with the further intention of exploring the unique contributions of different types of academic motivation and levels of depression, anxiety and stress to determine whether these predict adjustment to university. The abovementioned objectives were attained by collecting quantitative data from first-year women students residing at two residences of Wits University. This chapter will provide a detailed discussion of the results of the research. The collected data was analysed utilising Pearson's correlations and step-wise multiple regression with forward selection.

The mean for the levels of the psychological distress variables came out as follows: depression, anxiety and stress levels of the students ranged from mild to moderate. Additionally, when comparing levels of academic motivation, this sample had significantly lower intrinsic motivation towards knowledge, and lower extrinsic motivation towards identified regulation. However, this sample tended to have higher motivation towards achievement and stimulation. Notably, the levels of motivation in this sample were very high (Utvær & Haugan, 2016). Student adjustment in this sample was generally lower than in one study that explored students' adjustment in all areas of adaptation (Soledad *et al*., 2012).

In this research sample, the relationships between psychological distress and adjustment were explored. Depression, stress and anxiety were each found to be negatively associated with all types of adjustment (academic, social, personal-emotional, attachment and overall adjustment). This suggests that psychological distress is a massive risk factor as it may predispose students to poor adjustment in their first year of university (Baker, 2002) and they may be at increased risk of dropping-out at the end of their first year. Taken together with the above findings on mean levels of depression, anxiety and stress, this study suggests that depression, anxiety and stress are significant factors to be managed for women in their

first year of university, as these factors may predispose students to poorer adjustment in all areas.

A forward stepwise regression analysis was conducted to explore the unique contributions of academic motivation (and subscales) and psychological distress (depression, anxiety, and stress). For academic adjustment, depression was found to be the largest predictor accounting for 16% of the variance. This corroborates research deducing that depression is associated with both academic performance (for example, Hysenbegasi, Hass & Rowland, 2005) and academic adjustment in the first year of university (Wingo, Kalkut, Tuminello, Asconape & Han, 2013). The addition of *intrinsic motivation: towards accomplishment* accounted for a further 15% of the variance in academic adjustment. Further examination of the relationship between *intrinsic motivation: towards accomplishment* and academic adjustment suggests a very strong positive relationship. Taken together, the students in this sample who felt intrinsically motivated towards accomplishment reported feeling better adjusted in the academic arena.

The importance of intrinsic motivation in various samples has been well documented in the literature (for example, Erten, 2014). Two additional variables were found to significantly contribute to the variance in academic adjustment. Firstly, *intrinsic motivation: towards stimulation* was found to be positively associated with academic adjustment, whereas amotivation was negatively associated with academic adjustment. A large body of research supports the finding that identifies intrinsic motivation as a robust predictor of academic adjustment. For example, Dumont *et al.* (2009) found that students who evidenced higher intrinsic motivation were more likely to report higher levels of adjustment to university. As mentioned before, this sample has much higher reported levels of amotivation than students in other samples. Considering its strong relationship with academic adjustment in this sample, poor academic motivation is identified as a factor that may put this student demographic at greater risk of poor academic adjustment, and by extension, weak performance. This highlights the importance of targeting amotivated students to foster a greater sense of intrinsic motivation, with the aim of improving their ongoing academic adjustment.

The present study further explored the relations between psychological distress, types of motivation, and social adjustment. Results suggested that stress was the only robust predictor of social adjustment, and it accounted for 12% of the total variance in social adjustment. It is important, however, to note that while depression and anxiety did not

uniquely contribute to the variance in social adjustment, they are significantly negatively related to social adjustment. Research suggests that social adjustment plays a significant role in academic performance, and the consequent successful completion of studies at university level (Gerdes & Mallinckrodt, 1994). Therefore, it is crucial for students to feel well-adjusted socially at university.

The relation between stress and social adjustment is equally well documented. For example, Dumont *et al* (2009) also found that students who experienced their lives as stressful and considered their academic requirements as too demanding, showed poorer social adjustment. Furthermore, Baker (2002) conducted a longitudinal study investigating the effect of problem-solving appraisals on adjustment to university, stress, health, academic motivation, and academic performance. This study revealed that social problem-solving skills facilitate an increase in general competence and adaptation to university, and reduce the student's stress levels.

Attachment adjustment measures the degree of the student's commitment to the academic institution they are attending. In this sample, depression was the strongest predictor of attachment adjustment. Specifically, students who reported lower levels of depression reported a greater sense of belonging to the university. The study by Dumont *et al.* (2009) showed that students who reported a greater sense of belonging were better adjusted, and even performed better on a measure of academic performance. Although to a lesser extent, *intrinsic motivation: towards accomplishment* and amotivation were also associated with whether students reported feeling a sense of belonging at the institution.

Finally, this research explored factors associated with personal-emotional adjustment. Depression accounted for a large portion (24%) of the variance in this type of adjustment. Personal-emotional adjustment is associated with the student's intrapsychic state during college adjustment (Dumont et al, 2009). Lower scores in this type of adjustment are associated with: stress; depression; more emotional reliance on others; and fewer psychological coping resources (Baker & Siryk, 1989). Furthermore, stress was also associated with this area of adjustment, although to a much lesser extent.

4.2 Limitations and directions for further research

The interpretation of the findings of this study should be made with the following considerations. Firstly, the small sample size may have led to an underpowered study, where

only moderate to large effect sizes could be detected. It is possible that some of the null findings in this study could have been found to be significant in a larger sample. Additionally, due to the methods of data collection, the respondents were predominantly young, black women. This is largely due to certain complications faced in accessing male students who were staying in the university's residences, and the decision was made at that point to concentrate on women students.

Secondly, the sample consisted of no day-scholars due to such obstacles as the difficulties encountered in attempting to persuade these students to participate in this research: the duration of the intervals between lectures was too short to complete the questionnaire adequately; and none that I approached were prepared to remain on campus after their lectures were finished for the day.

The findings of this research focused predominantly on young, black, first-year women students living in the Wits University campus residences; and the timeframe context for each student's participation was during her first year of attending any South African university. Further research to explore these findings using a larger and more diverse sample could be of value to both students and the universities, as well as to the South African Department of Higher Education and Training in their strategy to improve the desired graduate output rates.

Lastly, the reliability coefficients for the adjustment measure ranged from poor to acceptable. While the other three subscales fell within the acceptable range, the attachment adjustment scale had poor reliability in this sample. The findings in this research using this variable (attachment adjustment) should therefore be interpreted with great caution as it is likely that there is measurement error in assessing how well students are attached to their institution of higher learning.

The importance of psychological distress in student adjustment is critical according to these findings. Given that the generalisability of these findings is limited to black female students living in residence, it is critical that these relationships should be explored in a much more diverse sample of undergraduate students to allow for tailored support structures in the first year of varsity. However, these findings highlight the importance of support programmes within the campus residence structures to address difficulties that female students may experience in terms of motivation, particularly depression.

4.3 Conclusion

The aim of this study was to investigate the the relationship between academic motivation, psychological distress, and various forms of student adjustment; with the further intention of exploring the unique contributions of different types of academic motivation, to determine whether these predict psychological distress and student adjustment to university. Results of the study generally showed that psychological distress, academic motivation and student adjustment to university are significantly associated with one another. Furthermore, the study showed that psychological distress and academic motivation have a unique contribution to how female students who reside on campus adjust to university. More specifically, depression was found to have the most significant and negative impact on these students' levels of academic, personal-emotional and attachment adjustment. Lastly, results suggest that amotivated students were more at risk of poor adjustment while those who were more intrinsically motivated are likely to adjust to university better. It is therefore important for universities to pay attention to amotivated students who also show depressive symptoms, and provide them with support to facilitate healthy adjustment to university.

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6. Appendices

5.1 Appendix 1: Participant Information Letter

Psychology
School of Human & Community Development
University of the Witwatersrand
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559

RESEARCH PROJECT:

The relationship between various forms of adjustment and academic motivation.

To whom it may concern

My name is Lerato Rasoaisi, and I am conducting research for the purpose of obtaining a Master's degree in Clinical Psychology at the University of the Witwatersrand. The aim of the research is to investigate the relations between academic motivation and various forms of adjustment. More specifically the study aims to explore the unique contributions of the different categories of motivation as well as depression, anxiety and stress in predicting the four types of student adjustment. This research project seeks to contribute to helping undergraduate students to experience more positive adjustment to university while they succeed in their academics and are leading healthy lives psychologically.

Each student who agrees to be a part of the study will be required to complete a paper-and-pencil questionnaire; this should take no longer than 30 minutes.

Participation in this study is voluntary. If you choose not to participate in the study, or decide you want to stop at any stage, or not to answer any specific questions in any of the questionnaires, there will be no consequences. I will be collecting all the questionnaires as soon as all participants are done filling in all the information. Apart from my supervisor and me, no one will have access to the information. The questionnaire will is entirely anonymous and no identity information will be requested from the participants *(unless the*

participant is a Psychology student and therefore qualifies to earn academic credits towards their final course mark. In this case the participant's student number and code/s of registered courses are requested. ***Please attend to the following page for more details****).*

Should you be willing to participate in this study, would you please be so kind as to sign the 'consent to participate' form attached, for proof that you have agreed to be a participant in the study.

Should any participants feel any distress during or after the completion of the questionnaire, please a list of affordable and accessible resource is provided below where participants can seek help regarding counselling or therapy:

Emthonjeni Community Psychology Clinic: (011 717 4513)

Counselling and Careers Development Unit: (011 717 9140/32)

Thank you for considering taking part in this study.

Student Researcher:

Lerato Rasoaisi

Cell: 073 634 6995

Email: lrasoaisi@gmail.com

Supervisor:

Dr Esther Price

esther.price@gmail.com

5.2 Appendix 2: Consent to Participate

Psychology
School of Human & Community Development
University of the Witwatersrand
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559

RESEARCH PROJECT:

The relationship between various forms of adjustment and academic motivation.

Consent to Participate in Research

I_____ agree to participate in the research study titled, "The relationship between various forms of adjustment and academic motivation".

I acknowledge that in signing this consent form: I am participating in the research study voluntarily.

I have been informed of my rights and responsibilities as a participant in this research study.

I have been informed of that anonymity will be ensured in this research study.

Date: _____ Signature: _____

5.3 Appendix 3: Procedure for obtaining credit for Psychology courses due to participation



Psychology
School of Human & Community Development
University of the Witwatersrand
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559



RESEARCH PROJECT:

The relationship between various forms of adjustment and academic motivation.

Dear potential [1st-year Psychology] participant

As you may be aware, in addition to the benefits outlined in the informed consent sheet attached to this pack, as a Psychology 1st-year student you are also eligible to obtain credit towards your final coursemark for participating in research projects. This project is one of the projects for which you are able to obtain credit for participating. It is not the only project which will allow you to do so, and you are reminded that you will be given many opportunities to obtain this credit if you wish. However, should you choose to participate in this study, you will be able to obtain [between 2 – 3%] credit towards your final first-year Psychology mark.

In order to credit you with participating in this research, it will be necessary for you to obtain a proof of participation slip. In addition, I, as the researcher, am required to obtain a list of participants for cross-verification purposes. In order to allow you to remain anonymous but still meet these requirements, you will be asked to provide the course code/s in Psychology for which you are registered and your student number in the space below but not your name.

You will notice that, unlike the other pages in this pack, this page does not and the next page do not contain your participant number. As soon as you hand in the completed pack as per the procedure in the informed consent sheet, this page will be separated from the rest of the pack. Once this is done, there will be no way to link your student number to any of the data you have provided and your responses will therefore be completely anonymous.

As the researcher I will then compile a list of participants by student number only. Thus I will not have your name and individual identity. This list will then be given to the relevant course coordinator/s and administrator/s to allow them to credit you. The course coordinator/s and administrator/s will thus be aware that you participated in research but not what your response were – they will have no access to your data.

If you agree to provide here below your student number, and the course code/s for Psychology for which you are currently registered, strictly for the purpose of obtaining credit as per the conditions outlined above, please fill in the slip on the next page. Please detach and keep this sheet.

Student Number and Psychology Codes
(for Obtaining Course Credit Only)

Student Number :

Course codes : _____

_____ _____

_____

_____ _____

Thank you

_____

PROOF OF PARTICIPATION SLIP

This slip hereby serves to confirm that student :

Student Number :

participated in a Masters-level study conducted by a student in the Department of Psychology at the University of Witwatersrand and is thus eligible to receive course credit for this participation.

Signed :

Date :

5.4 Appendix 4: Paper-pencil questionnaire booklet



Psychology
School of Human & Community Development
University of the Witwatersrand
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559



RESEARCH PROJECT:

The relationship between various forms of adjustment and academic motivation.

Dear Participant

Thank you for participating in this research.

Please complete the questions within the booklet. Try to answer every question as honestly as possible. You are welcome to ask questions to clarify anything that might seem unclear or ambiguous.

Please return questionnaire booklet to the administrative office (room **U211**) at the **Umthombo** building, on the East Campus by the **5th of September 2014**.

Kind regards,

Lerato Rasoaisi

Section 1:

Demographic Information

Please tick (with a visible cross) the appropriate box that corresponds with your chosen answer:

1. Age

18-25	26-35	36-45	46-59	60+

2. Race

Black	White	Indian	Coloured	Asian

3. Faculty

Commerce, Law & Management	Engineering & the Built environment	Health Sciences	Humanities	Science

4. Have you been a 1st year student at another university before? Or repeated the 1st year at this university

Yes	No

5. Relationship status

Single	In committed relationship	Married	Divorced	Widowed

6. Where and with whom are you currently living with:

home with parents:	family relative;	university residence	renting out a flat or private student accommodation

7. What is your financial situation:

Your parents are paying your fees	You are paying for you own fees	A scholarship or Bursary is paying for you	A student loan is paying your fees (NSFAS, EduLoan/ Bank)	You don't know how you are going to pay for your fees

8. What are some the challenges that you are facing (as a 1st-year student with regards to adjusting to university (Please write a maximum of 5 lines):

Section 2:

DASS

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

1	I found it hard to wind down	0 1 2 3
2	I was aware of dryness of my mouth	0 1 2 3
3	I couldn't seem to experience any positive feeling at all	0 1 2 3
4	I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)	0 1 2 3
5	I found it difficult to work up the initiative to do things	0 1 2 3
6	I tended to over-react to situations	0 1 2 3
7	I experienced trembling (e.g., in the hands)	0 1 2 3
8	I felt that I was using a lot of nervous energy	0 1 2 3
9	I was worried about situations in which I might panic and make a fool of myself	0 1 2 3
10	I felt that I had nothing to look forward to	0 1 2 3
11	I found myself getting agitated	0 1 2 3
12	I found it difficult to relax	0 1 2 3
13	I felt down-hearted and blue	0 1 2 3
14	I was intolerant of anything that kept me from getting on with what I was doing	0 1 2 3
15	I felt I was close to panic	0 1 2 3
16	I was unable to become enthusiastic about anything	0 1 2 3
17	I felt I wasn't worth much as a person	0 1 2 3
18	I felt that I was rather touchy	0 1 2 3
19	I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)	0 1 2 3
20	I felt scared without any good reason	0 1 2 3
21	I felt that life was meaningless	0 1 2 3

Section 3:

AMS

Using the scale below, indicate to what extent each of the following items presently corresponds to one of the reasons why you go to college:

Does not correspond at all Corresponds a little Corresponds moderately Corresponds a lot Corresponds exactly

Does not Correspond at all		Corresponds a little		Corresponds moderately		Corresponds a lot		Corresponds exactly
1	2		3	4	5		6	7

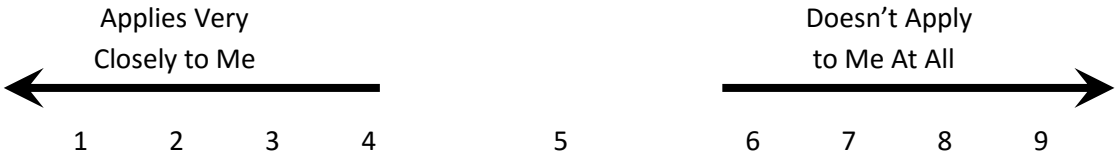
1	Because with only a high school degree I would not find a high paying job later on.	1 2 3 4 5 6 7
2	Because I experience pleasure and satisfaction while learning new things	1 2 3 4 5 6 7
3	Because I think that a college education will help me better prepare for the career I have chosen.	1 2 3 4 5 6 7
4	For the intense feelings I experience when I am communicating my own ideas to others.	1 2 3 4 5 6 7
5	Honestly, I don't know; I really feel that I am wasting my time in school.	1 2 3 4 5 6 7
6	For the pleasure I experience while surpassing myself in my studies.	1 2 3 4 5 6 7
7	To prove to myself that I am capable of completing my college degree.	1 2 3 4 5 6 7
8	In order to obtain a more prestigious job later on.	1 2 3 4 5 6 7
9	For the pleasure I experience when I discover new things never seen before.	1 2 3 4 5 6 7
10	Because eventually it will enable me to enter the job market in a field that I like.	1 2 3 4 5 6 7
11	For the pleasure that I experience when I read interesting authors.	1 2 3 4 5 6 7
12	I once had good reasons for going to college; however, now I wonder whether I should continue.	1 2 3 4 5 6 7
13	For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments.	1 2 3 4 5 6 7
14	Because of the fact that when I succeed in college I feel important.	1 2 3 4 5 6 7
15	Because I want to have "the good life" later on.	1 2 3 4 5 6 7
16	For the pleasure that I experience in broadening my knowledge about subjects which appeal to me.	1 2 3 4 5 6 7

17	Because this will help me make a better choice regarding my career orientation.	1 2 3 4 5 6 7
18	For the pleasure that I experience when I feel completely absorbed by what certain authors have written.	1 2 3 4 5 6 7
19	I can't see why I go to college and frankly, I couldn't care less.	1 2 3 4 5 6 7
20	For the satisfaction I feel when I am in the process of accomplishing difficult academic activities.	1 2 3 4 5 6 7
21	To show myself that I am an intelligent person.	1 2 3 4 5 6 7
22.	In order to have a better salary later on.	1 2 3 4 5 6 7
23.	Because my studies allow me to continue to learn about many things that interest me.	1 2 3 4 5 6 7
24.	Because I believe that a few additional years of education will improve my competence as a worker.	1 2 3 4 5 6 7
25.	For the "high" feeling that I experience while reading about various interesting subjects.	1 2 3 4 5 6 7
26.	I don't know; I can't understand what I am doing in school.	1 2 3 4 5 6 7
27.	Because college allows me to experience a personal satisfaction in my quest for excellence in my studies.	1 2 3 4 5 6 7
28.	Because I want to show myself that I can succeed in my studies.	1 2 3 4 5 6 7

Section 4:

SACQ

Using the scale below, indicate to what extent each of the following items presently corresponds to one of the reasons why you go to college (university):



1	I feel that I fit in as part of the college environment	1 2 3 4 5 6 7 8 9
2	I have been feeling tense or nervous lately	1 2 3 4 5 6 7 8 9
3	I have been keeping up to date on my academic work	1 2 3 4 5 6 7 8 9
4	I am meeting as many people, and making as many friends as I would like at college	1 2 3 4 5 6 7 8 9
5	I know why I'm in college and what I want out of it	1 2 3 4 5 6 7 8 9
6	I am finding academic work at college difficult	1 2 3 4 5 6 7 8 9
7	Lately I have been blue and moody a lot	1 2 3 4 5 6 7 8 9
8	I have been very involved with in social activities in college	1 2 3 4 5 6 7 8 9
9	I am adjusting well to college	1 2 3 4 5 6 7 8 9
10	I have not been functioning well during examinations	1 2 3 4 5 6 7 8 9
11	I have felt tired much of the time lately	1 2 3 4 5 6 7 8 9
12	Being on my own, taking responsibility for myself, has not been easy	1 2 3 4 5 6 7 8 9
13	I am satisfied with the level at which I am performing academically	1 2 3 4 5 6 7 8 9
14	I have had informal, personal contacts with college professors	1 2 3 4 5 6 7 8 9
15	I am pleased now about my decision to go to college	1 2 3 4 5 6 7 8 9
16	I am pleased now about my decision to attend this college in particular	1 2 3 4 5 6 7 8 9
17	I am not working as hard as I should with my course work	1 2 3 4 5 6 7 8 9
18	I have several close social ties at college	1 2 3 4 5 6 7 8 9
19	My academic goals and purposes are well defined	1 2 3 4 5 6 7 8 9
20	I haven't been able to control my emotions very well lately	1 2 3 4 5 6 7 8 9
21	I'm not really smart enough for academic work I am expected to be doing now	1 2 3 4 5 6 7 8 9

22.	Lonesomeness for home is a source of difficulty for me now	1 2 3 4 5 6 7 8 9
23.	Getting a college degree is very important for me	1 2 3 4 5 6 7 8 9
24.	My appetite has been good lately	1 2 3 4 5 6 7 8 9
25.	I haven't been very efficient in the use of my study time lately	1 2 3 4 5 6 7 8 9
26.	I enjoy living in a college dormitory. (Please omit if you do not live in a dormitory; any university housing should be regarded as a dormitory.)	1 2 3 4 5 6 7 8 9
27.	I enjoy writing papers for courses	1 2 3 4 5 6 7 8 9
28.	I have been having a lot of headaches lately	1 2 3 4 5 6 7 8 9
29.	I really haven't had much motivation for studying lately	1 2 3 4 5 6 7 8 9
30.	I am satisfied with the extracurricular activities available at college	1 2 3 4 5 6 7 8 9
31.	I've given a lot of thought lately to whether I should ask to help from the Psychological/Counselling Services Centre or from a psychotherapist outside of college	1 2 3 4 5 6 7 8 9
32.	Lately I have been having doubts regarding the value of a college education	1 2 3 4 5 6 7 8 9
33.	I am getting along very well with my roommate(s) at college (Please omit if you do not have a roommate	1 2 3 4 5 6 7 8 9
34.	I wish I were at another college or university	1 2 3 4 5 6 7 8 9
35.	I've put on (or lost) too much weight recently	1 2 3 4 5 6 7 8 9
36.	I am satisfied with the number and variety of courses available at college	1 2 3 4 5 6 7 8 9
37.	I feel that I have enough social skills to get along well in the college setting	1 2 3 4 5 6 7 8 9
38.	I have getting angry too easily lately	1 2 3 4 5 6 7 8 9
39.	Recently I have had trouble concentrating when I try to study	1 2 3 4 5 6 7 8 9
40.	I haven't been sleeping very well	1 2 3 4 5 6 7 8 9
41.	I am not doing well enough academically for the amount of work I put in	1 2 3 4 5 6 7 8 9
42.	I am having difficulty feeling at ease with other people at college	1 2 3 4 5 6 7 8 9
43.	I am satisfied with the quality or the calibre of courses available at college	1 2 3 4 5 6 7 8 9
44.	I am attending classes regularly	1 2 3 4 5 6 7 8 9
45.	Sometimes my thinking gets muddled up too easily	1 2 3 4 5 6 7 8 9

46.	I am satisfied with the extent to which I am participating in social activities at college	1 2 3 4 5 6 7 8 9
47.	I expect to stay at this college for a bachelor's degree	1 2 3 4 5 6 7 8 9
48.	I haven't been mixing too well with the opposite sex lately	1 2 3 4 5 6 7 8 9
49.	I worry a lot about my college expenses	1 2 3 4 5 6 7 8 9
50.	I am enjoying my academic work at college	1 2 3 4 5 6 7 8 9
51.	I have been feeling lonely a lot at college lately	1 2 3 4 5 6 7 8 9
52.	I am having a lot of trouble getting started on homework assignments	1 2 3 4 5 6 7 8 9
53.	I feel I have good control over my life at college	1 2 3 4 5 6 7 8 9
54.	I am satisfied with my program of courses for this semester/quarter	1 2 3 4 5 6 7 8 9
55.	I have been feeling in good health lately	1 2 3 4 5 6 7 8 9
56.	I feel I am very different from other students at college in ways that I don't like	1 2 3 4 5 6 7 8 9
57.	On balance, I would rather be at home than here	1 2 3 4 5 6 7 8 9
58.	Most of the things that I am interested in are not related to any of any of my course work at college	1 2 3 4 5 6 7 8 9
59.	Lately I have been giving a lot of thought to transferring to another college	1 2 3 4 5 6 7 8 9
60.	Lately I have been giving a lot of thought to dropping out of college altogether and for good	1 2 3 4 5 6 7 8 9
61.	I find myself giving considerable thought to taking time off from college and finishing later	1 2 3 4 5 6 7 8 9
62.	I am very satisfied with the professors I have now in my course	1 2 3 4 5 6 7 8 9
63.	I have some good friends or acquaintances at college with whom I can talk about any problems I may have	1 2 3 4 5 6 7 8 9
64.	I am experiencing a lot of difficulty coping with the stresses imposed upon me in college	1 2 3 4 5 6 7 8 9
65.	I am quite satisfied with my social life at college	1 2 3 4 5 6 7 8 9
66.	I'm quite satisfied with my academic situation at college	1 2 3 4 5 6 7 8 9
67.	I feel confident that I will be able to deal in a satisfactory manner with future challenges here at college	1 2 3 4 5 6 7 8 9

5.5 Appendix 5: Ethics Clearance Certificate

Please see next page; as document was received from the Wits Ethics Committee in PDF format.