Investigating the factors that affect academic performance of first year Psychology and Sociology students at the University of Namibia

Lenah Mukonga¹, Wesley Pieters² University of Namibia. Clifford Hlatywayo³ University of Namibia

ABSTRACT

Stress is inevitable; it has become part of students' lives as they work hard and compete at every stage of their academic careers. Students' academic performance at tertiary institutions is affected by stress and their levels of motivation. The purpose of this study was to explore the effect of stress, motivation and teaching styles of lecturers on first year students' academic performance. This is because reducing students' stress levels and finding ways to increase their levels of motivation would result in better academic performance; a greater understanding of factors underlying academic stress is believed to lead to improved stress management strategies and academic success; and this understanding would facilitate the development of

¹ Ms Lenah Mukonga is a UNAM Industrial Psychology graduate. Her research interests include education, teaching and learning excellence. Email: Imukonga2015@gmail.com

² Dr Wesley R. Pieters is a Senior Industrial/Organisational Psychology lecturer in the Faculty of Humanities and Social Sciences (Human Sciences Department- Psychology Section). His research interests include organisational effectiveness, education and positive psychology. Email: wpieters@unam.na

³ Dr Clifford K. Hlatywayo holds a PhD in Industrial Psychology from the University of Fort Hare and his thesis focused on HR competencies, career success and employability in South Africa. Dr Hlatywayo is a seasoned researcher and focuses on holistic organisation efficiency. He enjoys helping young human scientists discover their purpose and grow to become true professionals who can uplift the African society. Email: chlatywayo@unam.na

Correspondence concerning this article should be addressed to Dr Wesley R. Pieters, Department of Human Sciences, University of Namibia. Email: wpieters@unam.na

effective counselling modules and intervention strategies by student counsellors to help students alleviate stress. The sample consisted of students from the University of Namibia's main campus in Windhoek (n=321). The study questionnaire collected data on the biographical details, motivation, perceived stress, teaching style experienced and academic performance of first year Psychology and Sociology students of 2018. This study found that extrinsic motivation, amotivation and perceived stress negatively affected academic performance. Teaching style (facilitating expert style) positively affected motivation to know, motivation to achieve and extrinsic motivation. Motivation to know and motivation to achieve reported a positive effect on academic performance.

Keywords: perceived stress, motivation, teaching style, academic performance

Academic achievement is known to have a significant effect on a student's self-esteem, motivation and determination in tertiary education (Jayanthi, Balakrishnan, Ching, Latiff, & Nasirudeen, 2014). If students do well in their studies, they feel good about themselves and their abilities, are motivated to want to do more to achieve good marks and ultimately this would impact how they progress at university. Tertiary institutions use academic performance to determine how competent students are and this would predict how competent these students would be as employees.

It is every university's aspiration to provide excellent education to students and to produce competent graduates. The success of a university may be measured by the success of its students in both academic and non-academic areas (MolokoMphale & Mhlauli,

2014). If students are not performing well at university for whatever reason, it negatively affects students, the reputation of the lecturers and the institution.

Stress is known to impact academic failure and drop-out rates as it is one of the major factors that has an influence on students' academic performance and motivation levels (Pillay & Bundhoo, 2011). This problem is escalating, but it is unaddressed (Pillay & Bundhoo, 2011). The realization of the harmful effects of stress seems to be ignored and may negatively affect students' academic and future prospects.

Scholars have differing opinions regarding the impact of stress such as depression, anxiety, burnout, insomnia and fatigue (Essel & Owusu 2017). Stress is unavoidable. Everybody experiences it in their lives and the longer it lasts, the more likely it is that it can harm a person's physical health, emotional wellbeing and influence the academic accomplishment of students (Khan & Alam, 2015). Some universities have failed to see the need to implement stress reduction techniques to help students through their academic endeavours (Paul, Elam, & Verhulst, 2007). Institutions need to ensure that the learning environment is conducive and they should provide the necessary infrastructure to allow students to manage stress effectively and progress through academia.

There are various determinants of academic achievement, and one of them is motivation. High levels of motivation as well as engagement in learning have been associated with reduced dropout rates and increased levels of student accomplishment (Kushman, Sieber, & Harold, 2000). If students are motivated and take an active

interest in their school work, they are likely to also obtain good results.

Gredler (2001) describes motivation as the drive that makes individuals do something. If students are motivated, they work towards achieving their goals and to obtain good grades. It also prepares them to become competent employees in the future. When students achieve good grades at university, they would experience pleasure in studying and working hard. These pleasurable emotions can also foster a positive work ethic later in adult life. O'Callaghan (2014) classified academic motivation into three categories: intrinsic motivation, extrinsic motivation as well as amotivation.

The use of teaching aids and styles also plays a crucial role in students' achievement. These are crucial elements that assist students to develop independent and critical thinking at university. The way lecturers connect with students can greatly influence students' self-perception (Zgheib, Simaan, & Ramzi, 2010). However, lecturers may not know whether or not their students are comfortable with their teaching style. Some pedagogical approaches cause students to adopt a poor style of learning that is unreceptive, testfocused, overflowing and reliant on short term memory. This style of learning also prevents students from understanding the material correctly, hindering their chances for self-learning (Zgheib et al., 2010). Therefore, it is important to know the factors that motivate students to excel in academia and the role that different teaching tools and styles play in their academic performance.

To the researchers' knowledge no study has been done within the Namibian context that investigates the relationship between motivation, perceived stress, teaching styles and academic

performance of students. Therefore, this study set out to investigate the relationship between motivation, perceived stress, teaching style and academic performance of first year Psychology and Sociology students at the University of Namibia.

LITERATURE REVIEW

Academic Performance

The measure of academic performance is seen as a basis for academic success which can be used to determine one's career path (MolokoMphale & Mhlauli, 2014), and it is one of the most pressing educational issues (Orelus, 2010). However, students' academic performance is often debated, because it can be influenced by multiple factors such as stress and students' motivation (Martínez, Karanik, Giovannini, & Pinto, 2015). It is for these reasons that experts and teachers have devoted attention to discovering significant forces influencing students' achievement (Mustafa, Elias, Noah, & Roslan, 2010). Understanding factors that influence students' academic performance could assist universities, students and lecturers to attempt to minimize the negatives and ensure academic and institutional success.

Academic performance has been defined in many different ways by different researchers. Academic performance represents outcomes that indicate the extent to which an individual has accomplished specific goals in instructional environments such as schools and universities (Steinmayr, Meißner, Weidinger, & Wirthwein, 2014). Yusuf (2012) holds the view that performance should not only be based on tests and examination results, but should

also be based on whether or not students have acquired survival skills. Thus, students' academic success could be used to assess the effectiveness of the institution (MolokoMphale & Mhlauli, 2014). Yusuf (2012) describes academic performance as the observable and measurable behaviour of a student in a particular situation and comprises of scores obtained from teacher-made tests, first -term examination and mid-semester tests.

Mills, Heyworth, Rosewax, Carr and Rosenberg (2008) stated that the main focus of any institution of higher education is the academic success of their students. Every university is concerned with providing their students with the best possible opportunity to excel in whichever field they venture into. Academic optimism was found to play a fundamental role in students' achievement (Hoy, Tarter, & Hoy, 2006). This means that students have a higher chance of succeeding if they have a positive attitude towards their studies and goals. This would make them put in more effort into their academic endeavours which, in turn, could produce better academic performance. Vermunt (2005) states that the progress strategy, goals, learning materials, evaluation techniques, amount of work, ability to freely choose, teaching tools and strategies have an effect on the outcome of academic results. In addition, he identifies structure, clarity, level, pace, explanation, empathy of teaching and enthusiasm as characteristics that also have an effect on academic performance.

According to Arslan, Akcaalan and Yurdakul, (2017), academic achievement can also be impacted by students' perception of their capabilities and self-belief. Their perception of self-efficacy is influenced by their past academic performances and life experiences.

This means that students who have faith in their abilities to succeed are more likely to put in more effort and would be more determined than their counterparts. Therefore, the self-efficacy of first year students is a great predictor of their future academic performance. Students who believe in themselves excel much better in their academics. Students' self-efficacy and goals play a role in their motivation and therefore affect their academic performance (Ronconi & De Beni, 2014).

Stress

Stress has become part of our daily lives. Stress affects students and their academic progress in academia (Khan & Alam, 2015). University life can be stressful for first year students as the transition from high school to university places huge demands on them and requires higher level of independence, initiative and selfregulation (Reddy, Menon, & Thattil, 2018). It has become a topical issue in academic circles, and after carrying out studies on this and its outcomes many researchers have concluded that it should be emphasised (Agolla, 2009). This is because stress has also been identified to have significant impacts on students' academic performance.

In an academic context, academic stress is conceptualized as a mental feeling of uneasiness that results from academic failure or from school situation that is perceived negatively (Khan & Alam, 2015). This indicates that students encounter demands related to academia that exceed the adaptive resources available to them. A review of existing literature reveals that stress among students is a

result of multiple stressors such as the need to perform well, competition for good grades, career choices, increase in class workload, demanding courses as well as demands from lecturers and parents for good grades (Azila-Gbettor, Atatsi, Danku, & Soglo, 2015). A greater understanding of factors underlying academic stress is believed to lead to improved stress management strategies (Park et al., 2012). Additionally, this would help to improve strategies at universities and schools to help school counsellors and students to better cope and handle stress (Reddy et al., 2018).

Reactions to a stressful situation depends on an individual's interpretation of the specific situation. If a student perceives a situation as threatening, they may start to worry, experience tension and apprehension resulting in feelings of stress (Khan & Alam, 2015). Students feel the effects of stress in harsh and negative ways. Depression, general fatigue, insomnia, mood swings, a sudden drop in grades and aggression are some of the effects that are experienced (Khan & Alam, 2015). Therefore, the existence of proper educational facilities, valid scientific syllabus, experienced lecturers and enriched environments can help facilitate the learning process and reduce stress among students (Mohatashami, Tajari, & Akhbarirad, 2015).

Although it is perceived to be more of a negative factor, stress in the academic contexts has various consequences both positive and negative. It can be unfavourable as it inhibits and suppresses learning and is associated with negatively impacting students' academic performance. However, stress can be favourable if managed well because it can enhance learning abilities (Siraj et al.,

2014). Moreover, overwhelming stress pushes a student to try and manage stress and do things they would not normally do. Stress on an optimum level is essential for better performance (Khan & Alam, 2015).

Based on the literature, the following hypothesis has been developed:

Hypothesis 1: Perceived stress has a negative relationship with academic performance.

Motivation

According to Domene, Socholotiuk and Woitowicz (2011), motivation has been identified as one of the prevailing but powerful determinant of students' achievement or failure in school and it serves as a driving force for academic success. It is widely believed that motivation plays a significant role in determining whether or not a student achieves academic success. There are various levels of motivation and there are personal as well as social factors that affect motivation thus impacting academic performance (Mustafa et al., 2010). Students' motivation can be affected by factors such as the desire and persistence to achieve, students' interest in the subject matter, interactions with lecturers and others as well as perception of one's ability (Mustafa et al., 2010).

Similarly, motivation is hypothesized to have an influence on other factors such as engagement and study skills that directly influence the development of academic abilities. Motivation therefore refers to forces that drive students to attend, engage in as well as exert effort in learning and achieving at school (Beck, 2004). Pfeiffer and Jarosewich, (2003) describe motivation as students' ability to work hard and thrive without reinforcement, the desire for success and the tendency to tackle challenging tasks.

Since educational experts, parents and teachers are interested in determining the central forces that influence students' achievement in academia, it is essential for all concerned parties to look at the external and internal factors that impact learning and academic success (Mustafa et al., 2010).

Intrinsic motivation refers to factors within an individual that drive them to do something such as the desire to know, accomplish and experience stimulation (O'Callaghan, 2014). Park et al. (2012) define intrinsic motivation as a drive from personal needs and satisfaction. For instance, students have the desire to explore a lot of things and are curious to find out why something is the way it is. Therefore, they feel intrinsically motivated because they perform tasks not for external rewards. Academic intrinsic motivation in students should be an important goal for educators because of its significance for future motivation as well as for effective functioning in the school environment (Broussard, 2002). This means that students are more likely to be either intrinsically or extrinsically motivated. Intrinsic motivation is defined as a drive from personal needs and satisfaction (Park et al., 2012). External forces that influence behaviour are known as extrinsic motivation and they involve performing a task for some external reward valued by an individual (O'Callaghan, 2014). In academia, students can be extrinsically motivated by the attainment of the degree upon

completion of their studies, the jobs they would get, and the accompanying social status or prestige.

Studies have shown that students who are intrinsically motivated often persist longer, easily solve challenging tasks and accomplish more in their academic endeavours than their counterparts (Ibrahim, Baharun, Harun, & Othman, 2017). Intrinsically motivated students tend to have higher achievement levels, higher perceptions of competence and engagement and lower levels of anxiety (Wigfield & Waguer, 2005). On the contrary, extrinsically motivated students tend to place more emphasis on getting higher grades, receiving rewards as well as getting their peers' approval because their behaviors are controlled by external factors (Ibrahim et al., 2017). However, not all students are intrinsically motivated towards certain tasks because some lecturers encourage and stimulate their students towards learning by the use of extrinsic motivation such as rewards, praise, free time and even punishment (Krause, Bochner, & Duchesne, 2006).

Learning takes place only when a person is cognitively and emotionally engrossed because optimum learning experiences are intrinsically motivated and related to positive emotions (Mustafa et al., 2010). Students who are able to adjust their motivational, mental and metacognitive components of learning are more likely to become self-motivated learners which in turn could play a significant role in their academic success (Langley & Bart, 2008).

Furthermore, setting challenging and attainable goals help students regulate their motivation levels. This means that students make choices about their behaviour based on their desired goals and

take actions to achieve them (SEHD Workforce Directorate, 2005). Goal-setting is not just about encouraging students to do their best, but it involves assisting them in setting reasonable and realistic goals. Students focus better and feel much more motivated when they set challenging and attainable goals, thus they work hard to attain them and produce better results.

Based on the literature discussed above, the following hypotheses have been developed:

Hypothesis 2: Intrinsic motivation (motivation to know; motivation to achieve) has a positive relationship with academic performance.

Hypothesis 3: Extrinsic motivation has a negative relationship with academic performance.

Hypothesis 4: Amotivation has a negative relationship with academic performance.

Teaching styles

Shuresh, Priya and Gayathri (2018) defined teaching styles as a pre-determined and planned process aimed at facilitating and promoting learning within students. It is a process of acquiring knowledge from diverse sources while gaining skills and performing tasks.

Khandaghi and Farasat (2011) found that teaching styles can help lecturers understand the role that they play in students' academic performance as it can also affect information retention. Students need to understand the concepts that they have been taught in order to perform well academically and if they are not motivated enough or do not fully understand the work, their perception and retention of the information could be hindered. Moreover, students could get frustrated when lecturers do not know how much time to allocate to teach content.

The quality of instruction refers to the instructional methods and techniques used and how instructions are organised to be easily understood by students (Noorlyda, 2012). Students who comprehend instructions easily are less affected by insufficient instructions than students with a poor ability to comprehend instructions (Noorlyda, 2012).

According to McKenzie and Schweitzer (2001), students come from diverse backgrounds and social settings, each with their own demands and experiences, varied levels of education and capabilities. This means that their expectations and way of understanding concepts could be different from their colleagues and this could have an effect on their academic performance if their needs are not met. According to McNamara (2008), this affects students' ability to perform in their respective fields of study. Therefore, it is important to know the factors that motivate students to excel in academia, their learning styles and how the different teaching styles play a role in their academic performance.

Macintyre and Ellaway (2010) posit that a student's social environment would be where and how they live, if they come from a poverty-stricken background, their race, age, their geographical location and even their peers and family members. It includes the

different forces that have moulded the student into who they are. This would mean that a student's social environment is also a very important aspect of their academic success. Problems in their social environment could produce factors that could hinder their motivation and, in turn, affect their academic performance.

The institution would also count as a social environment as student-teacher interaction plays a role in the motivation of a student. Ryan and Patrick (2001) found that when students feel a connection in terms of where they are, they are more motivated to perform well academically. When one is comfortable with one's surroundings, it makes it easier to adapt and excel since it does not feel like it is outside your comfort zone.

Since teaching styles have an effect on how students perceive information, their academic performance would be impacted by how they understand information. Therefore, the content or information that is conveyed by the educator must be thought-provoking and accurate. It should be able to capture the interest of the student in an interesting and relatable way. This assists students in retaining information which is the ultimate objective (Dhaqane & Afrah, 2016). Students could be motivated when they believe that the information they acquire has a greater purpose in their lives. Every student is different, so they would be motivated in different ways, thus lecturers should find different ways of getting students interested in a specific topic.

Based on the literature discussed above, the following hypothesis has been developed: *Hypothesis 5: Teaching style has a positive relationship with academic performance of students.*

RESEARCH METHODOLOGY

Research Design, Ethics and Procedure

A quantitative approach was used in this study and it enabled the researchers to test if the variables have a statistical impact on each other (Techo, 2016). Making use of a survey questionnaire, data was collected regarding stress, motivation, experienced teaching styles and academic performance of students at the University of Namibia. After permission was obtained from the Faculty of Humanities and Social Sciences Ethics' Committee, the identified lecturers were approached. Permission to use the last 10 minutes of their lectures was obtained in order to conduct the study. The purpose of the study, the outline of the study and participants' ethical rights were explained to the students. The students were informed that participation is voluntary and that no punishment would follow if they were to choose not to participate in the study or were to decide to withdraw from it at any stage of the research. To ensure that anonymity is maintained, participants' names have not been used and the results of the study will only be used for academic purposes. Furthermore, students were given a consent form to sign, and time to complete the guestionnaires which the researchers collected upon

completion. Collected data was interpreted and conclusions and recommendations were made based on the hypotheses.

Population and sample

The population was Introduction to Psychology and Sociology first year students at the University of Namibia during the 2018 academic year. The researchers used simple random sampling method to select the participants. All students who were interested in participating in the study and who were present on the day of data collection were included in the study. This study had a sample of 321 participants.

Research instruments

A biographical questionnaire was developed by the researchers and was used to obtain information about the participants' characteristics which included their gender, age and the identity of their lecturer.

The Perceived Stress Scale developed by Cohen (1994) was used to measure students' level of stress. Items were designed to assess how unpredictable, uncontrollable and overloaded respondents found their lives to be. The scale consisted of 10 items. Example are "In the last month how often have you been upset because of something that happened unexpectedly" (unpredictable); "In the last month how often have you been angered because of things that happened that were outside your control" (uncontrollable); and "In the last month how often have you felt difficulties were piling up so high that you could not overcome them"

(overloaded). Lee, Kim and Wachholtz (2016) found the scale to be reliable with Cronbach's alpha of 0.82.

Academic motivation was measured using the Academic motivation scale (AMS) developed by Vallerand (1992). The scale has seven dimensions including: three types of intrinsic motivation (knowledge, accomplishment and stimulation), three types of extrinsic motivation (identified, introjected and external) and amotivation (Utvaer & Haugan, 2016). Knowledge assesses the desire to perform a task, and this includes items such as "because I experience pleasure and satisfaction while learning new things". Accomplishment includes items such as "for the satisfaction I feel when I am in the process of accomplishing difficult academic activities". Stimulation measures the desire to perform a task in order to experience stimulation, and it includes items such as "because school allows me to experience a personal satisfaction in my quest for excellence in my studies". Identified regulation assesses the desire to do something in order to gain a sense of importance and personal value (Utvaer & Haugan, 2016). This includes items such as "because I want to have the good life later on". Introjected regulation assesses the experience of pressure and guilt while external regulation measures whether a person participates in tasks to avoid negative consequences or to achieve rewards and it includes items such as "because with only a high-school degree I would not find a highpaying job later on". Amotivation measures the experience of a lack of motivation, and items include "honestly, I don't know, I really feel that I am wasting my time in school" (Utvaer & Haugan, 2016). Utvaer

and Haugan, (2016) found an alpha level for the different subscales of motivation ranging from 0.71-0.84.

A teaching style survey developed by Grasha and Riechmann (1996) was adapted to measure lecturers' teaching styles at the University of Namibia as experienced by the students. The scale consisted of 2 dimensions and 16 items, namely: Expert (8 items) "sharing my knowledge and expertise with students is very important"; and facilitator (8 items) "teaching goals and methods address a variety of student learning styles". Students' academic performance was assessed by asking how they performed in the module during the first semester (50-59; 60-69; 70-79; 80 and more).

Data Analysis

The data collected was analysed using the Statistical Package for Social Sciences version 24 (SPSS, 2016) which allows researchers to use graphs, pie charts and tables to present the data and make correlations between variables. Descriptive statistics were used to convey the biographical results of the study. The consistency of instruments used in the study was tested by SPSS' reliability analysis technique (Cronbach's Alpha) to ensure that results produced by the instruments were reliable. To determine whether there is an association between the variables being studied, the Pearson Product Moment Correlation was used (Pearson = r).

RESULTS

Demographic Variables

The sample of the study consisted of n=321 Introduction to Psychology and Sociology students from the University of Namibia. From the sample, 64 participants were male (19.9%) and 257 were female (80.1%). The age range of 18-19 [133] recorded the highest percentage (41.4%), while 122 participants (38%) from the sample were between the ages of 20-21. Most of the participants (n=99; 30.8%) were taught by Psychology Lecturer 1, 94 (29.3%) of the participants were taught by Psychology Lecturer 2 and 128 (39.9%) of the students were taught by Sociology Lecturer 1. The rest of the biographical data is presented in Table 1 below.

Table 1

Variable		Frequency	Percentage		
Gender	Male	64	19.9		
	Female	257	80.1		
Age	18-19	133	41.4		
	20-21	122	38.0		
	22-23	21	6.5		
	24-25	11	3.4		
	26 and older	34	10.6		
Lecturer	Psychology 1	99	30.8		
	Psychology 2	94	29.3		
	Sociology 1	128	39.9		
TOTAL		321	100.00		

Biographical Data (n=321)

Impact of Motivation, Perceived Stress and Experienced Teaching Style on Academic Performance

The mean, standard deviation, Cronbach alphas and Pearson Product Moment Correlation are presented in Table 2 below. The results explain how the data is distributed, the reliability of the instruments and the relationship between dimensions of the different variables under this study.

Table 2

Mean, Standard deviation, Cronbach's Alpha and Pearson Product Moment Correlation

	MEAN	SD	Α	1	2	3	4	5	6	7
1.PSTRESS	13.45	4.53	.76	-						
2.	21.56	5.48	.81	01	-					
M_TOKNOW										
3. M_ACHIE	20.90	5.39	.81	.02	.67++	-				
4. EM	21.82	5.97	.80	.15*	.30*+	.38*+	-			
5. AMOTI	8.46	6.80	.90	.21*	20*	22*	01	-		
6. FAC_EXP	59.88	9.19	.75	.03	.34*+	.38*+	.21*	07*	-	
7. AP	1.91	0.91	-	09*	.10*	.10*	02	05*	.03	-

* Statistically significant: $p \le 0.05$ (small effect)

+ Practically significant correlation (medium effect): $0,30 \le r \le 0,49$

++ Practically significant correlation (large effect): r > 0,50

PSTRESS- Perceived stress

- M_TOKNOW- Motivation to know
- M_ACHIE- Motivation to achievement

EM- Extrinsic motivation

AMOTI- Amotivation

FAC_EXP- Facilitative Expert teaching style

AP- Academic performance

The results indicate that the perceived stress scale was found to be reliable at α =0.76. Motivation was divided into four parts (academic motivation: to know; achieve; extrinsic motivation and amotivation). The scale was reliable in this study and the following reliability estimates were found. Motivation to know α =0.81, achievement α =0.81, extrinsic motivation α =0.80 and amotivation α =0.90. Table 2 shows that the teaching style survey was found to be reliable at α =0.75. All dimensions of the different scales met the set reliability cut-off of Cronbach Alpha 0.70.

Perceived stress reported a mean of 13.45 and a standard deviation of 4.53. Motivation to know reported M=21.56 and SD=5.48, motivation to achieve M=20.90 and SD=5.39, extrinsic motivation M=21.82 and SD=5.97 and amotivation reported M=8.46 and SD=6.80. Teaching style (facilitative expert) reported M=59.88 and SD=9.19. Academic performance reported a mean of 1.91 and a standard deviation of 0.91.

Perceived stress reported a relationship with motivation to know (r=-0.01, p > 0.05; no effect); motivation to achieve (r=0.02, p < 0.05; no effect); extrinsic motivation (r=0.15, p < 0.05; small effect); amotivation (r=0.21, p < 0.05; small effect); facilitative expert (r=0.03, p < 0.05; no effect) and academic performance (r=-0.09, p < 0.05; small effect).

Motivation to know reported a relationship with motivation to achieve (r=0.67, p < 0.05; large effect); extrinsic motivation (r=0.30, p < 0.05; medium effect); amotivation (r=-0.20, p < 0.05; small effect); facilitative expert (r=0.34, p < 0.05; medium effect) and academic performance (r=0.10, p < 0.05; small effect).

Motivation to achieve reported a relationship with extrinsic motivation (r=0.38, p < 0.05; medium effect); amotivation (r=-0.22, p< 0.05; small effect); facilitative expert (r=0.38, p < 0.05; medium effect) and academic performance (r=0.10, p < 0.05; small effect).

Extrinsic motivation reported a relationship with amotivation (r=-0.01, p < 0.05; no effect); facilitative expert (r=0.21, p < 0.05; small effect) and academic performance (r=-0.02, p < 0.05; no effect).

Amotivation reported a relationship with facilitative expert (r=-0.07, p < 0.05; small effect) and academic performance (r=-0.05, p < 0.05; small effect).

Facilitative expert reported a relationship with academic performance (r=0.03, p < 0.05; no effect).

DISCUSSION AND CONCLUSION

The aim of this study was to investigate the impact of motivation, perceived stress, and experienced teaching style on academic performance of first year Psychology and Sociology students at the University of Namibia.

Perceived stress reported a negative relationship with academic performance. These findings are supported by Khan and Alam (2015) and Pillay and Bundhoo (2011) that found similar results highlighting the negative effects of stress on academic performance. This may be an indication that the expected academic performance exceed the available resources and the ability to handle these academic expectations. Stress has the potential to also negatively impact students' psychological states leading to depression, fatigue, insomnia, mood swings and a sudden drop in academic performance (Khan & Alam, 2015).

Hypothesis 2 of the study investigated positive relationship between motivation to know; motivation to achieve and academic performance. Intrinsic motivation (to know and to achieve) reported a positive relationship with academic performance. These results support hypothesis 2 of the study. These results are in line with Domene et al. (2011) and Kushman et al.'s (2000) findings. Emphasis was placed on students' ability to be self-directed, engage in their studies and learn how to achieve high academic results. Students that experience intrinsic motivation are likely to also achieve good results later on in life and in their careers (Broussard, 2002). Ibrahim et al. (2007) also indicated that students that are intrinsically motivated also tend to work harder, achieve better results and are less anxious than students who are extrinsically motivated (Wigfield & Waguer, 2005).

Hypothesis 3 of this study proposed that extrinsic motivation has a negative relationship with academic performance and this was

supported. These students engage in studying because of the benefits that come with good marks such as rewards or praise and getting the approval of their peers (Ibrahim et al., 2017). This relationship is not significant which could mean that extrinsic motivating factors do not play such a significant role in terms of the academic performance of the sampled students.

Motivation is a significant determinant of students' success because they have higher perceptions of competence and engagement resulting in reduced dropout and increased levels of student accomplishment. When students are confronted with academic challenges, they are likely to be stressed. This affects the physical, psychological and mental aspects of their lives. When students become stressed they are likely to become demotivated, have low self-esteem and lose interests in tasks, experience diminished self-confidence and poor academic performance.

Amotivation reported a negative relationship with academic performance. This result supports hypothesis 4. When students lack guidance or fail to understand the importance of studying, they are not likely to perform well at university. Not knowing why you are at university and the purpose and direction of your studies/life could result in students not knowing what is expected of them and as a result they will not be able to respond appropriately.

Hypothesis 5 stated that teaching style (facilitative expert) has a positive relationship with academic performance. This was supported by the results of this study. Teaching styles have the ability to foster or dampen the learning of students (Shuresh et al., 2018).

Being a skilled teacher ensures that you are aware of students' learning styles and have the needed competence to ensure that teaching is done in an interesting manner. Khandaghi and Farasat (2011) indicated that lecturers/teachers need to be aware of how long it takes to grasp certain information but also the manner in which they convey the information. Noorlyda (2012) indicated that the quality of instruction and how teaching is being done impacts understanding and students' academic performance. Scholars (Mckenzie & Schweitzer; McNamara, 2008) indicate that students come from diverse backgrounds and learn differently. It is the responsibility of the lecturer to ensure that he/she is familiar with the learning style that the students make use of. Ryan and Patrick (2001) discussed the relationship between lecturers and students and how their ability to connect impacts academic performance. Lecturers need to modify their teaching styles in order to connect with students thereby enhancing learning and academic performance.

RECOMMENDATIONS

After examining different stressors and their impacts on students' academic performance, the study recommends that students should engage in different sports and recreational activities. The university should provide more opportunities for students to get involved in sporting activities since it is one of the possible ways of reducing the level of stress they experience. Additionally, exercising would/may ease anxiety and relieve negative effects of stress on the body. Exercise may also increase the focus and concentration of students in class.

Lecturers, parents, policy makers as well as students play a significant role in academic achievement. The way instructors or lecturers teach affects students' academic performance. To enhance the learning skills and grasp of concepts, lecturers should use good teaching methodologies and should provide proper guidelines about how to study. Moreover, lecturers should be well-trained in the field that they are teaching in. They should be able to monitor their teaching process and be able to inspire their students to perform well academically.

Parents need to advise, motivate and prepare their children for university life. Parents should be encouraged to get involved in seminars on stress management to understand the causes of stress encountered by their children. By understanding the stressors, parents can offer moral support to their children to help reduce the stress factors.

Policy makers and university management should consistently plan suitable activities or programs for students such as talks on financial management, motivation, time management, study skills and managing stress. These programs should shed light on measures to be taken to reduce the levels of stress as it would directly impact on students' academic achievement.

Students are also encouraged to manage their time effectively by making their school work a priority and avoiding procrastination. An environment in which learning takes place has an impact on students' academic performance as well because humans

react differently according to their social conditions. Students need an ideal learning environment for them to progress in their studies. Classroom organisation and cleanliness enhance the learning experience and boost students' achievement. Additionally, students can experience a sense of empowerment and community that can increase their overall motivation when they create their own study environment. Disorganized classes can affect students' focus and they would not be good venues for learning and teaching. If a student is highly satisfied with their environment and conditions, they are most likely to perform better academically than those who are dissatisfied. This shows that in order for students to remain engaged in their school work, they need a conducive and supportive environment that encourages their learning.

A student's social environment would be where and how they live. The socio-political-economic-geographical factors mould the student into who they are. This would mean that a student's social environment is also a very important aspect in their academic success. Problems in their social environment could produce factors that could hinder their motivation and, in turn, affect their academic performance. The better lecturers understand these circumstances, the better they would be equipped to handle challenges as they arise.

Additionally, the institution counts as a social environment as the student-teacher interaction plays a role in the motivation of the student. When students feel connected to where they are, they are more motivated to perform better in their academic endeavours.

Some of the limitations experienced during this study include time constraints since some students were required to go for the next lecture. This study collected data once, however future studies could

include a longitudinal design and collect data over a period of time. It is suggested that future studies consider second, third and final year students as well. Future studies could include educational background, career choice, on or off campus residence to investigate the relationship with academic performance.

REFERENCES

- Agolla, J. E. (2009). Occupational stress among police officers. The case of Botswana Police Service. *Research Journal of Business Management*, *2*(1), 25-35.
- Arslan, S., Akcaalan, M., & Yurdakul, C. (2017). Science motivation of university students: Achievement goals as a predictor. Universal Journal of Educational Research, 5(4), 681-686.
- Azila-Gbettor, E. M., Atatsi, E. A., Danku, L. S., & Soglo, N. Y. (2015). Stress and academic achievement: Empirical evidence of business students in a Ghanaian polytechnic. International Journal of Research in Business Studies and Management, 2(4), 78-98.
- Beck, R. C. (2004). *Motivation: Theories and principles* (5th ed.). Upper Saddle River, NJ: Prentice.
- Broussard, S. C. (2002). The relationship between classroom motivation and academic achievement in first and third graders. Retrieved from https://pdfs.semanticscholar.org/c7df/87ec06b0a9fa13fcd40 96055f97862f9f7f5.pdf
- Dhaqane, M. K., & Afrah, N. A. (2016). Satisfaction of students and academic performance in Benadir University. *Journal of Education and Practice*, 7(24), 59-63.

- Domene, J. F., Socholotiuk, K. D., & Woitowicz, L. A. (2011). Academic motivation in postsecondary students: Effects of career outcome expectations and type of aspiration. *Canadian Journal of Education*, 34(1), 99-127.
- Essel, G., & Owusu, P. (2017). Causes of students' stress, its effects on their academic success, and stress management by students.
 Finland: SeAMK. Retrieved from https://www.theseus.fi/bitstream/handle/10024/124792/The sis%20Document.pdf?sequen
- Gredler, M. E. (2001). *Learning and instruction: Theory into practice.* (4th ed.). Upper Saddle River, NJ: Prentice-Hall Inc.
- Hoy, W. K., Tarter, J. T., & Hoy, A. W. (2006). Academic optimism of schools: A force for student Achievement. *American Educational Research Journal*, 43(3), 425-446.
- Ibrahim, M., Baharun, H., Haliza Harun, H., & Othman, N. (2017).
 Antecedents of intrinsic motivation, metacognition and their effects on students' academic performance in fundamental knowledge for matriculation courses. *Malaysian Journal of Learning and Instruction*, 14(2), 211-246.
- Jayanthi, S. V., Balakrishnan, S., Ching, A. L. S., Latiff, N. A. A., & Nasirudeen A. M. A. (2014). Factors contributing to academic performance of students in a tertiary institution in Singapore. *American Journal of Educational Research*, 2(9), 752-758.

- Khan, A., & Alam, S. (2015). Academic stress and self-concept of high school students. International Journal of Applied Research, 1(11), 317-322.
- Khandaghi, M. A., & Farasat, M. (2011). The effect of teacher's teaching style on student's adjustment. *Procedia Social and Behavioural Sciences*, 15, 1391-1394.
- Krause, K. L., Bochner, S., & Duchesne, S. (2006). Educational psychology for learning and teaching (2nd ed.). Sydney, Australia: Thomson.
- Kushman, J. W., Sieber, C., & Harold, K. P. (2000). This isn't the place for me: School dropout. In D. Capuzzi, & D. R. Gross (Eds.), *Youth at risk: A prevention resource for counsellors, teachers, and parents* (3rd ed.), [pp. 471-507]. Alexandria, VA: American Counselling Association.
- Langley, S. R., & Bart, W. M. (2008). Examining self-regulatory factors that influence the academic achievement motivation of unprepared college students. *Reasearch and Teaching in Developmental Education*, 25(1), 10-22.
- Lee, J., Kim, E., & Wachholtz, A. (2016). The effect of perceived stress on life satisfaction: The mediating effect of self-efficacy. *Chongsonyonhak Yongu*, *23*(10), 29-47.
- Macintyre, S., & Ellaway, A. (2010). Ecological approaches: Rediscovering the role of the physical and social environment. Retrieved from ResearchGate: https://www.researchgate.net/publication/246003474.

- Martínez D. L. R., Karanik, M., Giovannini, M., & Pinto, N. (2015). Academic performance profiles: A descriptive model based on data mining. *European Scientific Journal*, 11(9), 17-38.
- McKenzie, K., & Schweitzer, R. D. (2001). Who succeeds at University?
 Factors predicting academic performance in first year
 Australian University Students. *Higher Education Research and Development*, 20(1), 21-33.
- McNamara, J. (2008). The challenge of assessing student capabilities in legal internships. *WACE Asia Pacific Conference*. Sydney, Australia: ePrints.
- Mills, C., Heyworth, J., Rosewax, L., Carr, S., & Rosenberg, M. (2008). Factors associated with the academic success of first year health science students. Advances in Health Science Education: Theory and Practice, 14(2), 205-217.
- MolokoMphale, L., & Mhlauli, M., B. (2014). An investigation on students' academic performance for junior secondary schools in Botswana. *European Journal of Educational Research, 3*(3), 111-127.
- Mohatashami, A. R., Tajari, F., & Akhbarirad, M. A. (2015). Studying the relationship between hardiness and resilience personality traits and academic achievement among students of Kashan University in 2014. *Science Journal*, *36*(3), 3294-3301.
- Mustafa, S. M. S., Elias, H., Noah, S. M., & Roslan, S. (2010). A proposed model of motivational influences on academic achievement

with flow as the mediator. Retrieved from https://cyberleninka.org/article/n/971802/viewer

- Noorlyda, C. (2012). John Carroll's model of school learning. Retrieved from https://www.slideshare.net/NoorlydaAbdLatip/johncarrolls-model-of-school-learning.
- O'Callaghan, P. (2014). The relationship of stress to gender, age, academic motivation, student expectations and self-esteem among students (BA Dissertation). Dublin Business School, School of Arts, Dublin, Ireland. Retrieved from https://esource.dbs.ie/bitstream/handle/10788/2235/ba_oca llaghan_p_2014.pdf?sequence =1
- Orelus, P.W. (2010). *Academic achievers: whose definition*? New Mexico, NM: Sense Publishers
- Park, J., Chung, S., A, H., Park, S., Lee, C., Kim, S. Y. ... Kim, K. (2012). Structural model of stress, motivation, and academic performance in medical students. Psychiatry Investigation, 9(2), 143-149.
- Paul, G., Elam, B., & Verhulst, S.J. (2007). A longitudinal study of students' perceptions of using deep breathing meditation to reduce testing stresses. *Teaching and Learning in Medicine*, 19(3), 287–292.
- Pfeiffer, S. I., & Jarosewich, T. (2003). Gifted rating scales school and preschool forms. San Antonio, TX: The Psychological Corporation.

- Pillay, A. L., & Bundhoo, H. Y. (2011). Mauritian undergraduate university students' sources of stress and support. South African Journal of Psychology, 41(4), 417-423.
- Reddy, K. J., Menon, K. R., & Thattil, A. (2018). Academic stress and its sources among university students. *Biomedical and Pharmacology Journal*, 11(1), 531-537.
- Ronconi, L., & De Beni, R. (2014). What makes a good student? How emotions, self-regulated learning and motivation contribute to academic achievement. *Journal of Educational Psychology*, *106(1)*, 121-131.
- Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Joutnal*, 38(2), 437-460.
- Scottish Education Health Department Workforce Directorate (SEHD). (2005). *Theories of motivation*. Retrieved from from https://www.nes.scot.nhs.uk/
- Shuresh, M., Priya, V. V., & Gayathri, R. (2018). Effects of e-learning on academic performance of undergraduate students. *Drug Intervention Today*, 10(9), 1797-1800.
- Siraj, H. H., Salam, A., Roslan, R., Hasan, N.A., Jin, T.H., & Othman, M.N. (2014). Stress and its association with the academic performance of undergraduate fourth year medical students at

Universiti Kebangsaan Malaysia. *The International Medical Journal Malaysia*, *13*(1), 19-24.

- Steinmayr, R., Meißner, A., Weidinger, A. F., & Wirthwein, L. (2014). Academic achievement. Oxford Bibliographies Online Datasets. Retrieved from https://www.oxfordbibliographies.com/view/document/obo-9780199756810/obo-9780199756810-0108.xml.
- Techo, V. P. (2016). *Research methods-quantitative, qualitative, and mixed methods*. Paris, France: Research Gate.
- Utvaer, B. K. S., & Haugan, G. (2016). The academic motivation scale: Dimensionality, reliability and construct validity among vocational students. Nordic Journal of Vocational Education and Training, 6(2), 17-45
- Vermunt, J. P. (2005). Relations between student learning patterns and personal and contextual factors and academic performance. *Higher Education*, *49*, 205-254. doi: 10.1007/s10734-004-6664-2
- Wigfield, A., & Waguer, A. L. (2005). Competence, motivation and identity development during adolescence. Retrieved from http://www.sciepub.com/reference/179488
- Yusuf, A., F. (2012). Influence of principals' leadership styles on students' academic achievement in secondary schools. *Journal* of Innovative Research in Management and Humanities, 3(1), 113–121.

Zgheib, N. K., Simaan, J. A., & Ramzi, S. (2010). Using team-based learning to teach pharmacology to second year medical students improves student performance. *Medical Teacher, 32*, 130-135.