The Effects of Stress on Academic Performance among High School Students in Lusaka

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ABSTRACT

This study aimed to identify the various factors associated with stress and how those factors affect academic performance among high school students in Lusaka. It also aimed to add knowledge to the existing gaps on the matter to ensure that adolescents in high school can integrate various skills in order to cope or manage stress when they are overwhelmed.

The word stress brings about the thoughts of depression, anxiety and other potentially life-threatening conditions in the mind of an individual. Every person is exposed to stress at some point in their lives, and it is an inevitable part of a student's life as it takes a toll on their emotional well-being, academic performance as well as their physical health. Different factors cause stress among students. These include relationships with family and friends, examinations and deadlines, poor time management, social media, financial instability, future career thoughts, depression, anxiety and many more. Educational environments are extremely competitive, and students must be able to deal with academic related stress by relying on their coping capabilities. Most students are unable to cope with stress. This leads to different behavioral patterns such as alcoholism and substance abuse such as "dagga" (marijuana) and codeine in order to escape the harsh reality. This eventually leads to absentia in school and an increased number of schools drop outs. Stress is known to be the source of many problems among youth and its effects can be as toxic as suicide. Therefore, it's important that parents or guardians, teachers, the students themselves and the entire nation unite and ensure that supportive data is communicated to students for them to cope with their stress levels in a responsible manner.

Keywords: Stress; Depression; Anxiety; Academic performance; Coping

INTRODUCTION

A cross-sectional research design was employed in this study. A total of 232 students were selected from a population of 2, 322. A probability proportionate stratified sampling technique was used in this study. The first stage involves stratification of the population based on gender. The aim is to attain a representative sample of each stratum. The second stage employs the proportionate sampling technique to determine the actual sample to be drawn from each group which is a fraction of 1/10. The third stage employs random sampling of students that will participate in the study using a list of registered students from the three schools as the sampling frame. 40 from 400 at Lake Road PTA School, 102 from 1,022 at Kabulonga Girls Secondary School and 90 from 900 at Kabulonga Boys Secondary School [1].

MATERIALS AND METHODS

A semi-structured self-administered questionnaire was used to collect primary data for the study. The questionnaire was in form of a Student Academic Stress Scale (SASS) and was divided into five main parts. The first part included the demographics of the students. The second dimension, participants responded to each question concerning the causes of stress by ticking a suitable answer on the Likert scale with five measurement: Most

stressful (1) Stressful (2) Moderately stressful (3) Less stressful (4) And not stressful at all (5) The third dimension consisted of questions that were aimed at identifying how stress affected academic performance of students. The fourth dimension contained a few open-ended questions asking students how best they thought they could be helped when they were overwhelmed with stress. The last part consisted of various ways that respondents coped with stress which required them to tick suitable answers.

Secondary data was also obtained through various international journals and articles on the topic. Academic performance was measured using student report forms which were provided by the head teachers of the students. Descriptive statistics such as frequencies and percentages were used to summarise demographic information of the respondents. Inferential statistics such as chi-square tests with a significant level of 5% was used to test the association between variables.

RESULTS

The analysis of this research was purely quantitative. It was done by calculating the frequency, percentage and the p-values of the factors of stress among students, how stress affects academic performance. The table shows the association of the possible stressors with academic performance of students. The stressors that have a positive relationship with academic performance and gave a significant result are too many assignments, student competition, content of subjects, and poor relationship with teachers, failing a major subject, examinations and lack of quality sleep [2,3] (Table 1).

Variables	Performance		
	Passed	Failed	P-Value
Too many assignments			
Yes	51 (36.7%)	67 (72.0%)	p <0.001
No	88 (63.3%)	26 (28.0%)	
Student competition			
Yes	63 (45.3%)	28 (30.1%)	p=0.020
No	76 (54.7%)	65 (69.9%)	
Content of subjects			
Yes	86 (61.9%)	73 (78.5%)	p=0.008
No	53 (38.1%)	20 (21.5%)	
Teaching style of teachers			
Yes	96 (69.1%)	60 (64.5%)	p=0.469
No	43 (30.9%	33 (35.5%)	
Poor relationship with teachers			
Yes	89 (64.0%)	76 (81.7%)	p=0.004
No	50 (36.0%)	17(18.3%)	
Absence of teachers			
Yes	92 (66.2%)	66 (71.0)	p=0.444
No	47 (33.8)	27 (29.0)	
Failing a major subject			
Yes	77 (55.4%)	67 (72.0%)	p=0.013
No	62 (44.6%)	25 (26.9%)	
Family relationships			
Yes	75 (54.0%)	48 (51.6%)	p=0.726
No	64 (46.0%)	45 (48.4%)	
Learning environment			
Yes	83 (59.7%)	57 (61.3%)	p=0.810
No	56 (40.3%)	36 (38.7%)	
Domestic responsibility			
Yes	100 (71.9%)	68 (73.1%)	p=0.844
No	39 (28.1%)	25 (26.9%)	
Physical health			
Yes	66 (47.5%)	46 (49.5%)	p=0.767
No	73 (52.5%)	47 (50.5%)	
Examinations			
Yes	106 (76.3%)	83(89.2%)	p=0.013

No	33(23.7%)	10(10.8%)	
Lack of quality sleep			
Yes	119 (85.6%)	67(72.0%)	p=0.011
No	20 (14.4%)	26(28.0%)	
Limited time			
Yes	115 (82.7%)	74 (79.6%)	p=0.543
No	24 (17.3%)	19 (20.4%)	

Table 1: Association between factors of stress and academic performance.

	Performance		
Effects of Stress	Passed	Failed	P-Value
Negative attitudes towards school			
Yes	89 (64.0%)	73 (78.5%)	p=0.019
No	50 (36.0%)	20 (21.5%)	
Late submission of homework			
Yes	74 (53.2%)	55 (59.1%)	p=0.375
No	65 (46.8%)	38 (40.9%)	
Strained Relationship with teachers			
Yes	61 (43.9%)	64 (68.8%)	p<0.001
No	78 (56.1%)	29 (31.2%)	
Failed Subjects			
Yes	82 (59.0%)	39 (41.9%)	p=0.011
No	57 (41.0%)	54 (58.1%)	
Not confident with my academic work			
Yes	75(54.0%)	71 (76.3%)	p=0.001
No	64(46.0%)	22(23.7%)	

Table 2: Chi-square tests of how stress affects academic performance.

Table 2 shows there is a relationship between stress and academic performance. Stress affects their academic performance adversely through negative attitudes towards school, failed subjects, strained relationship with teachers and lack of confidence in academic work.

DISCUSSION

Academic related Stress

Stress is a state of an individual that results from the communication of the individual with the environment which seems intimidating or a threat to their well-being. Although some degree of stress is vital to inspire and motivate individuals to achieve their goals, stress can be a barrier for focusing, problem solving, decision making and other essential capacities for students' learning. This chapter expounds on the effects of stress among high school students as identified in this research as well as those founded by other scholars and the various coping styles that they engage in.

The results of the study indicate that students experience various stressors differently as shown in table 1. The compounded result indicates that 81.5% of the students were stressed due to having limited time and examinations, 80.2% were stressed due to lack of quality and quantity of sleep, 72.4% were stressed due to domestic responsibility and 71.1% recorded poor relationship with teachers. These findings were consistent with the study of Centre, at al. [4]. The findings reflect that, most of the students are experiencing stress in their daily academic activities.

As schedules get busier, students of all ages are finding themselves habitually sleep-deprived [5,6]. Students reported to be stressed due to lack of quality and quantity of sleep as well as poor relationship with teachers. These findings are consistent with the studies of the impact of the loss of sleep is difficulty paying attention, lower grades, higher stress, and trouble getting along with other people. Sleep quality and quantity has been shown to be closely related to student learning capability and academic performance.

Other stressors recorded by students were too many assignments 50.9%, student competition 39.2% and content of subjects 68.5%. Students are positioned in excessively challenging environments. Students reported to be stressed due to taking subjects that they did not want to take because of poor grades from their previous examinations or the content of the subjects being too difficult for them to understand.

Students are also given many assignments with close deadlines. They reported that assignments were a source of student stress. This result is consistent with the study of Pope, et al. [7], which revealed that 61% of students at seven high-achieving California bay area schools approved that their schoolwork or homework often kept them from other activities, such as spending time with family and friends, and 60% said they had to drop an activity they enjoyed because of assignments.

Examinations and tests were also reported to be a major source of stress for students. Schools have placed emphasis on the grades of its students hence students having stress and anxiety to produce good results. Schools, principals, teachers, and communities are judged on their test scores and students' results often drive decisions such as school funding or student promotions to the next grade level [8]. This also has a relationship with student competition as each student is trying

to be labelled the best in this very competitive era. These findings are consistent with the study of Scott, et al. [9], where they revealed that high levels of exam stress appeared to have negatively affected their performance.

Some researchers, in contrast, argue there is no evidence that testing is creating anxious students or lowering test performance. The authors noted that although studies have reported an association between low test scores and test anxiety, they have failed to address whether the low scores are a reflection of students' poor performance or if they are purely attributable to test anxiety.

Many students are under great pressure from parents, peers, and school staff to get good grades. The results of the study show that low or failing grades are a source of intense stress. These findings are consistent with the studies of McClure, et al. [10], who stated: "Too many students have been led to believe that getting A's is the point of going to school".

Negative interactions or poor relationships with teachers increase students' stress levels. Sources of teacher-related stress include a mismatch between student and lack of respect for teachers, disagreements between students and teachers and insufficient feedback on schoolwork from teachers [5,9]. This study is consistent with de Anda's, et al. [11], review of Los Angeles area middle school students found that 59 percent of students observed their teachers as a source of stress. Pope's, et al. [7], study of 5,000 students in 13 high-achieving middle and senior high schools found that students who thought their teachers cared about them, appreciated and listened to their ideas and got to recognize them individually displayed less signs of stress.

Students also pointed out that domestic responsibility was a source of stress as they had limited time to prepare for their school work adequately with 62% (67) of males reporting to be stressed by domestic responsibility while 81.5% (101) were females. The results showed a non-significant relationship with academic performance. Therefore, these findings are inconsistent with the study in Malaysia which stated that females were more stressed than males due to pressure at home or societal responsibilities thus leading to poor academic performance.

How stress affects academic performance

Table 2 reveals significant results of how stress affects academic performance among high school students. Students indicated that stress made them have negative attitudes towards school (p=0.019). Observed behaviours that suggested negative attitudes included sleeping in class, lateness to class, frequent requests to leave the room, habitual missing of class or verbal interruption of the lesson. Though almost every high school student will display these behaviors at one time or another, students with negative attitudes will display these behaviors consistently label these behaviors as "problem" behaviors that represent a student's (nonconformity) from the evolving norm in structured settings such as schools. The observed behaviors that were used as a basis for classifying negative student attitudes are consistent with McDermott and Schaefer's study.

Stress also affects academic performance through the relationship that students have with their teachers (p<0.001). Conflict with teachers was seen as creating stress among students. There is a lack of respect for teachers and poor concentration in class. This was indicated by 72% of the students who agreed that stress caused strained relationships with their teachers. This is consistent to studies on stress [12-14].

Students reported to lack confidence in their academic work due to stress 63% while 37% reported not to lack confidence in their academic work. This recorded a significant result of (p=0.001). This showed a significant relationship between stress and academic performance among students. This result is consistent with the findings of Ang, et al. [15], stated that stress resulted in little interest in subjects and poor confidence level of academic work.

The study also reveals a positive relationship with stress and failed subjects with a p-value of (p=0.011). 52.2% of the respondents revealed that stress was associated with failed subjects while 47.8% of the respondents disagreed. Studies indicate that high-stress leads to decreases in students' academic performance. This result is consistent and stated that excessive stress among students was found to reduce success of their study which contributed to bad habits and results in negative long-term consequences, including absenteeism from class, poor academic performance or failed subjects, and school dropout [16-18].

The study also recorded that stress affected their academic performance by late submission of homework by students which recorded a p-value of (p=0.375). 55.6% of the respondents reported that stress caused late submission of their homework while 44.4% disagreed. The study shows a non-significant relationship between late submission of homework and academic performance [19,20]. This result is inconsistent with the study that fulfilling academic tasks with deficiencies or not being able to complete them before the deadline often resulted in poor academic performance. Academic procrastination is one of the factors that causes late submission of homework defined procrastination as voluntarily delaying a planned course of action despite expecting to be worse off for the delay. Academic procrastination in schools is often observed in responsibilities such as preparing for examinations, doing homework and finalizing projects [21,22].

CONCLUSION

This narrative review highlights that stress is a major concern for secondary school students. This study identifies various factors of stress among students being academic workload, student competition, difficulty understanding the content of subjects, poor relationships with teachers, lack of quality sleep, limited time to adequately prepare schoolwork and examinations. It also identifies how stress affects academic performance through negative attitudes towards school, strained relationships with teachers, failed subjects and lack of confidence in their academic work. These in turn lead students to engage in different strategies or modes of coping with the stress such as problem-focused or emotion-focused strategies.

Findings show that to a large extent, stress affects students negatively. Therefore, it is vital for schools to understand the various sources of stress among their students and this implies putting effective stress overcoming measures in place such as enabling counsellors to create awareness and tailor-made intervention programs that are relevant to students' academic success and general life. Teachers and HOD's should request the needs of pupils in terms of the subject that each pupil should take. This is because some pupils are forced to take subjects that they don't have interest in and this affects their overall performance. Students should get enough sleep so that they are in a good mood the following day which will also help improve their memory among other benefits. Adolescents can effectively manage stress by having outlets in a way that is appropriate to them when faced with a challenge. They should also be able discuss with their parents or peers about what troubles them or stresses them. They should plan a goal strategy for their lives on how they can successfully manage their time and academic work. Pupils should be confident with their academic work and they should also submit their homework on time to avoid being stressed when deadlines are close. Another measure that can be put in place is that schools should focus on career paths of students to help them navigate their way into what they want to pursue when they begin their tertiary education. Adolescents should also be encouraged to carry out meditation and exercise and eat healthy meals regularly.

LIMITATIONS OF THE STUDY

There was a challenge of collecting data due to COVID 19 restrictions in the schools. Therefore, only two grades and particular classes were assigned for this study so as not to disrupt learning that was already delayed due to the closures concerning the global pandemic. The grades assigned were 11's and 12's because they were the most available students to answer the questionnaire as other students from other grades had not reported to school yet.

ACKNOWLEDGEMENTS

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