

ACADEMIC MOTIVATION, LOCUS OF CONTROL, PSYCHOLOGICAL DISTRESS AND STUDY HABITS AS DETERMINANTS OF TEST ANXIETY AMONG MEDICAL STUDENTS

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Abstract

This study investigated academic motivation, locus of control, psychological distress, study habits and test anxiety among medical students of Olabisi Onabanjo University, Ago Iwoye, Ogun State. One hundred and sixty (160) respondents participated in this study. Five instruments and a screening measure were used in the study. They included “Westside Test Anxiety Scale” (WTAS) which was used for screening the respondents; “Academic Motivation Scale” (AMS); “Locus of Control Scale”; “Psychological Distress Scale” (10- K); “Beck Anxiety Inventory” and “Study Habit Inventory”. Three research questions were raised and answered in the study. Pearson Product Moment Correlation (PPMC) and Multiple Regression Analysis were the statistical tools used to process the data collected in this study. The result obtained from the first research question indicated that test anxiety correlated with academic motivation, locus of control, psychological distress and study habit. Also, the result of the second research question showed that the independent variables when combined together have significant relationship with test anxiety. The results of the third research question revealed that all the four predicting factors (academic motivation, locus of control, psychological distress and study habit) are potent predictors of test anxiety. The most potent of all the factors was study habit ($\beta=0.517$, $t =7.529$, $P<0.05$). The implication of these findings is that students with high facilitating anxiety test scores have effective study skills while those with high debilitating anxiety test scores have less effective study skills. In other words, students that have good study skills are more likely to have lower test anxiety scores and vice versa.

Keywords: *Test anxiety, Medical students, Academic motivation, Locus of control, Psychological distress, Study habit*

Introduction

Test anxiety is considered as one of the major problems among graduate students. It leads to decline in academic performance, reduction in motivation and aggravated psychological distress. Test anxiety is

considered as normal examination worries for some students whereas for other students it is a pathological problem as they tend to avoid examination. Test anxiety is a psychological condition in which people experience extreme distress and anxiety in

testing situations. Students, who experience test anxiety, express maladaptive thoughts such as worrying greatly about examinations and exhibiting negative emotion before and during an examination.

Test anxiety can be described as the physiological, cognitive, and emotional responses created by stress experienced during assessment and it is a sense which has a negative contribution on the students' attitudes towards courses (Brown *et al.*, 2005). According to Horwitz and Young (1991), test anxiety is an apprehension over academic evaluation which is a fear of failing in test situations. It is actually a type of performance anxiety - a feeling someone might have in a situation where performance really counts or when the pressure is on to do well. In one word, test anxiety is a type of worry which can appear in test situations, having symptoms as common anxiety. "These symptoms may include dizziness, hand shivering, sleep loss, uncertainty, agitation, increased heart beat and sweating" (Salend, 2012). Test anxiety is an overwhelming feeling of disturbance and distress among the students around the world. It is a type of performance problem just like when some people get nervous speaking to large crowd or trying something new. Test anxiety can be a devastating problem for many students as it may impair their performance and well-being in the long run (Simpson, 2007).

Test anxiety could be defined as a widespread phenomenon when an extreme nervousness, arising from an anxiety-inducing test situation, prevents an individual from demonstrating his true potential and thus lowers performance, especially, in the educational environment

(Karatas, Alci and Aydin, 2013). Test anxiety is a multidimensional construct which combines worry, emotionality, interference, fear of failure, self-esteem and lack of confidence (Stoeber, Feast and Hayward, 2009). Little dosage of anxiety is essential to keep students task orientated, however, excessive anxiety or fear debilitates and affects student academic performance (Shireen, Masooma, Farhana and Sinar, 2008).

Various researchers have found that test anxiety decreases test takers' attention and consequently increases errors (Sarason, 1980, 1986; Busari, 2000). It reduces students' academic achievement, life quality and inner motivation. Also, it makes it difficult for students to focus their attention. Greater anxiety would be associated with poorer academic achievement and a negative correlation between test anxiety and students' performances (Onyeizugbo, 2010). Thus, it seems rational to believe that a decrease in the scores of the students could be partially assigned to these negative feelings about their own abilities.

According to Karatas *et al.* (2013), a striking number of undergraduate students who experience test anxiety often encounter deferment of semester or discontinuation in their studies. Failure in precise measurement can misplace individuals in society and lastly turn a flourishing society into an unsuccessful one. Zollar and Bed-Chain (1990) stated that it is an age of test consciousness. Test anxiety, therefore, could be considered as one of the major problems among medical students as it most likely causes underachievement, low performance, demotivation and psychological distress

(Loh, Kavitha and Saroja, 2008; Rana and Mahmood, 2010). First year medical students are more vulnerable to test anxiety as they are required to do a lot of seminar presentation in Problem Based Learning (PBL), Mock Objective Subjective Clinical Examination (MOSCE), demonstrate how to manage difficult clients and explain physiology and anatomy of the body in the laboratory (Dyrbye, Thomas, Harper, Massie, Power and Eacker, 2009).

According to result of research evaluated by Bodas, Ollenndick and Sovani (2006), they found that between 25 to 40% of undergraduate students experienced test anxiety and 69% of them are worried about scholastic performance (Khan, Mahmood, Badshah, Ali and Jamal, 2008). Medical students who experience test anxiety exhibited psychological symptoms which include tension, lack of concentration, worries and stress and physical symptoms such as trembling and sweating (Loh *et al.*, 2008). Researchers such as Stoeber, Feast and Hayward, (2009); Busari; (2011) have found that test anxiety is associated with heightened psychological distress and this psychological stress affects the academic performance. Students with high test anxiety experience more psychological distress when compared with low test anxiety.

According to Yusoff, Rahim, Baba, Ismail, Sidi, and Esa, (2013), 58.59% of first year medical students in Malaysia experienced psychological distress. The reasons for this are thought to be high expectation on medical students in mastering extensive professional knowledge and specific skills in highly competitive environment. Furthermore, the overwhelming information

leaves a minimal opportunity for medical students to relax. This has been consistently linked to psychopathology. The negative emotion of test anxiety which serves to raise the distress level among students is a common concern emerging from the existing literature. A moderate level of distress promotes creativity and achievement of students but intense pressure of highly anxious students will most likely secure unsatisfactory grades in studies (Harpell and Andrews, 2013). In the same vein, Woolfork (2009) observed that an anxious person may experience perceptual distortions of non-psychotic proportions, which may reflect in attention processes and thereby, critically affect the cognitive performance and information processing. Hassan, Zadeh, Ebrahimi and Mahdinejad (2012) found similar result in their study. According to them, the students' level of test anxiety can cause students' academic performance to suffer even more depending on the length of time they suffer from test anxiety.

Akinsola and Nwajei (2013) averred that test anxiety is positively correlated with psychological distress. On the other hand, Whitehous, Dinges, and Orne (1996) observed that students experience psychological distress prior to examination and this psychological stress may aggravate the test anxiety. However, it was observed by Sapp (2014) that individuals with high test anxiety experience more distress compared with those students with low test anxiety. It appears that the greater the subsequent importance of the test in the life of the individuals, the greater the anxiety and hence the greater the probability of acquiring unreliable results. It follows, therefore, that

there is a need to study the relationship of test anxiety with psychological distress.

Hills and Benlow (2008) noted that study skill is correlated to anxiety as it can boost a person's ability to study and pass examinations. Inadequate and inefficient studying can contribute to and intensify the test anxiety that a student may experience (Cassady, 2010). Students may initially perform poorly on test because of insufficient studying and preparation, learned helplessness, family pressures or badly designed tests that may make students experience increased stress, as well as concentration, attention, self-esteem, and memory difficulties during subsequent tests (Peleg, 2009). Witmaier (2002) posited the relationship between study skills and test anxiety. According to him, students with high facilitating anxiety test scores have effective study skills while those with high debilitating anxiety test scores have less effective study skills. In other words, students that have good study skills are more likely to have lower test anxiety scores and vice versa.

Gettinger and Seibert (2002) explained that academic competence is associated with the knowledge and application of effective study skills. According to them, students who possess good study skills are likely to achieve academic competence. They understand task demands, and are able to device flexible and effective strategies to succeed academically. Thus, effective study skills have been shown to improve academic performance, strategic knowledge and affective responses among students with learning problems across multiple academic domains. Parker (2010) submitted that there

are ways students can study to increase their ability to retain information and to think critically. Such include mnemonics, effective note taking, effective time management, use of key words, summarising, memorisation, flash card training, condensing information, acronyms and so on.

However, study skills have been related to other academic enablers. For instance, locus of control has been described as the cause of a person's experience and factors affecting success or failure (Barzegar, 2011); a predictor of many behaviours (Atik, 2006; Tella, Tella and Adeniyi, 2009); and the predictor of academic and social behaviours (Tella and Adika, 2008; Deniz, Tras and Aydigian, 2009). Uguak, Habiba, Jegak and Turiman (2007) argued that there is a relationship between academic achievement and locus of control. High-achieving students have high score in internal locus of control than low-achieving students (Yates, 2009). In the same vein, Bostic (2010) found that there is a significant difference in academic achievement of students who have internal locus of control and those who have external locus of control. According to him, students that have internal locus of control are more successful than students that have external locus of control. The variables of the study are chosen based on the fact that test anxiety may be influenced by varied factors such as environmental factors, teacher factor and psychological factors within the students. The psychological factors include the individual's cognitive variables such as psychological distress, motivation, adjustment, gender and study skills.

Locus of control (LOC) is conceived in this study as an individual's belief system as it relates to the causes of his/her experiences and the factors to which that person attributes success or failure. LOC can be internal or external source of control. Individuals, whose locus of control is internally located, attribute their success/failure to their abilities and competences while those who have external source of control, believe that their attainment/failure is as a result of some external factors such as luck or providence. People who have internal locus of control think that they have a big role to play in determining the events that influence their lives. In addition, they judge themselves as possessing the power for the attitude they want to display by having the positive ego concept and they believe that they can direct their lives in whatever way they want (Seligman and Walker, 2010). Similarly, Nowicki and Walker (2009) posited that locus of control plays an important role for students to sustain the efficacy and usefulness of learning performance. In their opinion, the knowledge and experiences gained by students by means of organisational learning are a vital factor of increasing students' performance. Thus, it is necessary for organisations to fulfil learning function in an arrangement and to use this function oriented to student's performance.

According to Glynn, Aultman and Owen (2005), motivation promotes student's interest in learning, optimistic about examination marks, confidence in capacity and competence. However, Hancock (2001) opined that in a highly evaluative threatening setting, highly anxious students perform

significantly poorer and are less motivated to learn. Thus, motivation is generally subdivided into three types: intrinsic motivation (an internal drive to pursue something for self-satisfaction), extrinsic motivation (an external source that acts as driving force for an individual's behaviour) and motivation. Dornyei (2001) defined motivation as "the relative absence of motivation that is not caused by a lack of initial interest but rather by the individual's experiencing feelings of incompetence and helplessness when faced with the activity". According to Whitehouse *et al* (1996), test anxieties affect motivation, concentration and academic performance. Reporting previous studies, Rastegar, Akbarzadeh and Heidari (2012) stated that the test anxiety person has low intrinsic and extrinsic motivation and high a motivation.

In his submission, Ergene (2012), found no correlation between test anxiety and academic motivation. Since, there is a contrast in literature related to relationship between test anxiety and academic motivation, the researcher is of the opinion that investigating the interrelationship of non-cognitive factors (test anxiety, study habit, academic motivation, psychological distress and locus of control) will be beneficial by providing better opportunities for students. Especially, in a society like Nigeria, where students at all levels display high test anxiety in their examinations as a result of inadequate learning skills or insufficient preparedness, which on many occasions, results to weakened performance, high prone to examination malpractices and consequently, poor academic performance.

This study, therefore, intends to identify relationship between academic motivation, locus of control, study habit, psychological distress and test anxiety. There are lots of researches that have been conducted on tests anxiety but there is a paucity of research on locus of control, psychological distress, study habit and academic motivation as predictors of test anxiety among medical students in Olabisi Onabanjo University in Ogun State. This study also aimed at filling this gap.

Objectives of the Study

The main objective of this study is to investigate the relationship of academic motivation, locus of control, psychological distress and study habit on test anxiety among medical students. The specific objectives include to:

1. investigate the relationship between the independent variables (academic motivation, locus of control, psychological distress and study habit) to the prediction of the dependent variable (test anxiety);
2. examine the joint contributions of the independent variables (academic motivation, locus of control, psychological distress and study habit) to the prediction of the dependent variable (test anxiety); and
3. determine the relative contributions of each of the independent variables (academic motivation, locus of control, psychological distress and study habit) to the prediction of the dependent variable (test anxiety).

Research Questions

The following research questions were raised and answered in this study

1. What is the significant relationship between the independent variables (academic motivation, locus of control,

psychological distress and study habit) and the dependent variable (test anxiety)?

2. To what extent would the joint contributions of the independent variables (academic motivation, locus of control, psychological distress and study habit) predict the dependent variable (test anxiety)?

3. What is the relative contribution of each of the independent variables (academic motivation, locus of control, psychological distress and study habit) to the prediction of the dependent variable (test anxiety)?

Methodology

Design

The research design adopted for this study is descriptive research design. With this design, the researcher intends to assess the relationship of independent variable and the dependent variables without necessarily manipulating the independent variable.

Sample and Sampling Techniques

Respondents in the current study were 160 first year medical students of Olabisi Onabanjo University, Ago Iwoye, Ogun State selected using convenient sampling method. With regard to gender, 84 (52.5%) medical students were male and 76 (47.5%) were female. Out of these respondents 93 (58) were Christians while 67 (42%) were muslims. Concerning the secondary school attended, 88(55%) attended private secondary schools and 72 (45%) passed out of public secondary schools. 104 (65%) were between age range of 16 and 18 while 56 (35%) were between age range of 19 and 21years.

Instruments

For the purpose of the present study, five instruments and a screening measure were utilised to elicit information from the respondents. They are:

Westside Test Anxiety Scale (WTAS)

Westside Test Anxiety Scale (WTAS) was used to screen the respondents for signs and symptoms of test anxiety (Driscoll, 2007). It consisted of ten brief items and it is measured in five points Likert scale. Total score was divided by ten to obtain the mean value in which a mean score of less than 3 was considered as normal or low anxiety whereas mean score of more than 3 showed test anxiety. Those who had mean score of more than 3 were the respondents of this study. The alpha reliability of this scale in this study is 0.89

Beck Anxiety Inventory

The Beck Anxiety Inventory, which was developed by Beck, Epstein, Brown and Steer (1998), was used to measure test anxiety among the students. It comprised of 21 items that was designed in Likert's 5-point response format that ranged from strongly disagree (1), disagree (2), undecided (3), agree (4) and strongly agree (5). Each student marked (✓) either of the response format (as appropriate) for each statement. The total score on the scale ranged from 20 to 65 where high scores denote high anxiety. According to Owayed (2005) who had earlier used the scale in a study of academic achievement and its relationship with anxiety, self-esteem, optimism and pessimism in Kuwaiti students, it has good reliability and validity coefficients. In the

present study, reliability coefficient of .83 was obtained.

Study Habit Inventory

The Study Habits Inventory (SHI), which was developed by Ulug (1981), was used to measure the students' study habits. It consists of 60 true/false items that were designed to examine the usual study behaviours of high school students. Fifty (50) out of sixty (60) items depict effective study habits while the remaining 10 are control items. The control items are reversed such that total scores ranged from 0 to 50, with high scores signifying good study habits. Ergene (2011) noted that a series of studies that used this scale yielded reliable scores and he realised a test retest reliability of .82 while studying the relationships among test anxiety, study habits, achievement, motivation and academic performance among Turkish High School students. For the current study, a reliability coefficient of .77 was achieved.

Locus of Control Scale

The Locus of Control Scale that was developed by Craig, Franklin and Andrews (1984) served as the measure for internal and external locus of control. It is a paper-and-pencil measure that consisted of 14 items that was designed in Likert's 5-point response format like the anxiety scale. The locus of control instrument includes items that incorporate a variation of reinforcement factors (both personal and motivational) consisting of achievement, dependency and affiliation. It is designed to assess the extent of each respondent's externality. None of the items indicates externality if the student's answer is agree (4) or strongly agree (5).

Akinleke (2008) had used this scale in a study in one of his studies in Nigeria where reliability coefficient of .66 was attained. For the present study, alpha coefficient of .91 was obtained.

Psychological Distress Scale

Kessler Psychological Distress Scale (K-10) K-10 was used to measure psychological distress (Kessler, Barker, Colpe, Epstein, Gfroerer and Hiripi, 2003). This scale consisted of ten questions and it is measured in five points Likert scale. The total score of 10 to 20 indicated non-distress while score of 21 to 50 was considered as distress. This scale has adequate reliability and the Cronbach's alpha's were 0.919 (Cornelius, Groothoff, van der Klink and Brouwer, 2013). Though it is moderately reliable instrument, this scale has been widely used by many researchers to measure psychological distress. The alpha reliability of this scale in this study was 0.92.

Academic Motivation Scale (AMS)

Academic Motivation Scale (AMS) was used to measure intrinsic motivation, extrinsic motivation and demotivation (Vallerand, Pelletier, Blais, Briere, Senecal and Valleires, 1993). Intrinsic motivation consisted of 12 items, extrinsic motivation consisted of 12 items and demotivation consisted of 4 items. Higher score indicates higher the problem. This scale is measured in seven point Likert scale. Reliability of the scale ranges from 0.70 to 0.79 (Kusurkar, Croiset, Kruitwagen, and Cate, 2010). The alpha reliability of this scale in this study was 0.94.

Procedure

Medical students were approached through their Head of Department after their lecture hours to participate in this study. The researcher explained the objectives of the present study and that participating in the study is not part of their course requirement. The researcher also informed them that information collected from students will be treated with utmost confidentiality and students are at liberty to withdraw at any time from this study. After explaining this information, students who were interested to participate in this study were requested to give their written consent before filling the questionnaires (BAI, SHI, WTAS, LCS, K-10 and AMS). After participants have filled these questionnaires, the researchers showed appreciation by thanking them for partaking in this study.

Method of Data Analysis

Data collected were analysed using the Pearson's Product Moment Correlation Coefficient (PPMC) and Multiple Regression Analysis at 0.05 level of significance. Multiple regression analysis was used to find the combined and relative contribution of the independent variables on the dependent variable. PPMC was used to determine if the relationship between the variables were statistically significant.

Results

Research Question 1

What is the relationship between the independent variables (academic motivation, locus of control, psychological distress and study habit) and the dependent variable (test anxiety)?

Table 1: Descriptive Statistics and Correlation Matrix Showing the Relationship between Independent Variables among Respondents

Variables	N	Mean	SD	Test Anxiety	Academic Motivation	Locus of Control	Psychological Distress	Study Habit
Test Anxiety	160	55.7813	16.3120	1.000				
Academic Motivation	160	27.5157	6.7132	.369**	1.000			
Locus of Control	160	42.6391	12.3100	.409**	.352**	1.000	1.000	
Psychological Distress	160	29.4971	8.5314	.413**	.765**	.533**	.357**	1.000
Study Habit	160	32.9331	9.1331	.415**	.327**	.329**	.349**	.305**

Table 1 shows the descriptive statistics and inter-correlations among the study variables. The table indicates that test anxiety correlated with academic motivation, locus of control, psychological distress and study habit. This implies that test anxiety is associated with non-cognitive and socio-psychological variables.

Research Question 2

What is the joint contribution of the independent variables (academic motivation, locus of control, psychological distress and study habits) to the prediction of the dependent variable (test anxiety)?

Table 2: Summary of Multiple Regression Analysis Showing the Combined Prediction of the Independent Variables to Test Anxiety

R = 0.613 R Square = 0.079 Adjusted R Square = 0.087 Std. Error of the Estimate = 16.519						
Model	Sum of Squares	DF	Mean Square	F	P	Remark
Regression	25825.000	5	5165.257			
Residual	27426.895	145	189.151	29.613	0.000	Significant
Total	53251.895	150	5354.408			

Table 2 indicates that the independent variables when combined together have significant relationship with test anxiety. The values of R (adjusted) = 0.087. This suggests

that the four factors accounted for 8.7% (Adj. R² = .087) variation in the prediction of test anxiety among the respondents. The result yielded a coefficient of multiple

regression $R=0.613$ and multiple $R\text{-square} = 0.079$. This suggests that the four factors combined accounted for 79% ($\text{Adj. } R^2=0.087$) variance in the prediction of test anxiety. The other factors accounting for the remaining variance (21%) are not variance within the scope of this study. The significance of the composite contribution was tested at $P<0.05$ using the F-ratio at the degree of freedom $df = 5/145$). The ANOVA result from the regression analysis shows that there was a significant joint relationship of the independent variables on the dependent variables $F(5,145) = 29.613$, $P<0.05$). This implies that the independent

variables in the model jointly predicted test anxiety. It also implies that it is more likely for students that are not academically organized and diligent to become easily apprehensive and emotionally destabilised with just minimally difficult tests. It also means that performing students in the school work are calm, organised and well-prepared.

Research Question 3

What is the relative contribution of the independent variables (academic motivation, locus of control, psychological distress and study habit) to the prediction of the dependent variable (test anxiety)?

Table 3: Relative Contribution of the Independent Variables to the Prediction of Test Anxiety

Model	Unstandardised Coefficients		Standardised Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	19.733	3.235		6.728	.000
Academic Motivation	.289	.056	.141	5.055	.000
Locus of Control	.177	.043	.103	4.637	.000
Psychological Distress	.131	.045	.101	3.937	.000
Study Habit	.517	.066	.188	7.529	.000

The results from table 3 show that all the four predictor factors (academic motivation, locus of control, psychological distress and study habit) are potent predictors of test anxiety. Using the unstandardised regression coefficients to determine the relative contributions of the independent variables to the explanation of test anxiety; the most potent contributor was study habit ($\beta=0.517$,

$t = 7.529$, $P<0.05$) followed by academic motivation ($\beta=0.289$, $t = 5.055$, $P<0.05$), locus of control ($\beta=0.177$, $t=4.637$, $P<0.05$) and psychological distress ($\beta=0.131$, $t = 3.937$, $P<0.05$).

This implies that when there is an increase in the influence of positive predictor such as increased academic motivation, increased internal locus of control, improved psychological well-being, and improved

study habits, there will be moderate level of anxiety.

Discussion

This study investigated academic motivation, locus of control, psychological distress and study habits as predictors of test anxiety among medical students. The result obtained indicated that the four variables positively correlate with and significantly predict test anxiety. This implies that test anxiety is associated with non-cognitive and socio-psychological variables. The result of the first research question shows that the four independent variables have a combined effect on the academic performance of the students. This indicates that the four independent variables have the capacity of predicting test anxiety, which could not happen by chance. The findings may be due to the fact that many researchers have found that test anxiety is influenced by varied factors such as environmental factors (Aremu and Sokan, 2003); teacher factor and psychological factors within the students (Ngwoke, 2010). The psychological factors include the individual's cognitive variables such as motivation, adjustment, gender and study skills. This finding is in line with the studies of Akinleke, (2012). The result of the current study is also consistent with previous study by Hashmat *et al.* (2008) who found that first year medical students are more prone to test anxiety due to undue course loads, lack of physical exercise and long duration of examination. Psychological distress is often recognised among undergraduate medical students, especially first year students.

The recent finding of positive relationship between test anxiety and psychological distress is highly consistent with the result obtained from the previous research which revealed that 46% of the medical students in Pakistan perceived worry in their periodic examination performance. This examination worry is one of the common sources in psychological distress initiation that heightens feelings of despair (Shah, Hasan, Malik and Sreeramareddy, 2010). There is also evidence that fear of failure and fear of imperfection boost distress level among the medical students when evaluative component is introduced. Anxiety is acquired in a strict testing situation when the subjective anxiety state allocates individuals to have inverse psychological effect and conceptualise examination as a threat of failing and fear of imperfection, causing them to tense up profoundly (Karatas *et al.*, 2013; Sagar, Lavallee and Spray, 2009).

The result obtained in this study is in agreement with previous study that test anxiety is correlated with intrinsic and extrinsic motivation (Stoeber *et al.*, 2009). Though students experience test anxiety, their motivation to learn from their lecturers are unaffected as they think motivation is imperative for achieving the destination. This motivation could be developed based on the personality, university atmosphere, lecturing method, parental guidance and students' perception about their future (Rastegar *et al.*, 2012). The effect of test anxiety not only affects the disruptive thoughts and behaviour, but also affects examination evaluation situation. This lack of coping with test anxiety most likely increases the motivation. The substantial

impact of these four variables on the test anxiety as revealed in this study cannot be overstated. This implies that it is more likely for students that are not academically organised and diligent to become easily apprehensive and emotionally destabilised with just minimally difficult tests. It also means that brilliant students in the school work are calm, organised and well-prepared.

The significant contribution of study habit to test anxiety as discovered by this study should be noted. The result obtained supports the findings of Witmaier (2002) who explained the relationship between study skills and test anxiety. According to him, students with high facilitating anxiety test scores have effective study skills while those with high debilitating anxiety test scores have less effective study skills. In other words, students that have good study skills are more likely to have lower test anxiety scores and vice versa. As the respondents are students of higher education institutions, who are expectedly matured, the learning environment, teacher-student relationship, the calibre of friends they keep as well as their socio-psychological development may all contribute to their good study habit and eventually, have great impact on their level of test anxiety.

Locus of control made significant contribution to test anxiety, according to the findings of this study. This is in line with the findings of Akinleke (2008). These studies discovered that locus of control does indeed strongly influence test anxiety and decision to graduate from high school. Locus of control can be internal or external source of control. The implication of this is that individuals whose locus of control is

internally located, attribute their success/failure to their abilities and competences while those who have external source of control believe that their attainment/failure is as a result of some external factors such as luck or providence. People who have internal locus of control think that they have a big role to play in determining the events that influence their lives.

Conclusion

This study investigated academic motivation, locus of control, psychological distress and study habit in relation to test anxiety among the first year medical students. All the four independent variables have emerged as possible predictors of test anxiety. This study could be further improved upon by including variables such as emotional intelligence, self-esteem, self-efficacy, gender, coping strategies and peer influence underlying test anxiety and to find the factors that differentiate high and low test anxiety students, especially, among medical students. The findings of this research have implications for helping professionals and academia in addressing the test anxiety of the students of higher institution so that timely and effective counselling and therapeutic interventions could be introduced to medical colleges and universities.

Recommendations

Base on the findings of this study, the following recommendations are made:

It is recommended that early intervention and proactive prevention programmes that would aid the reduction of anxiety and

nervousness in students be developed and implemented. Students who experience heightened and detrimental levels of anxiety when taking tests should be identified early in order to help them improve their academic performance.

Stress management workshops and training programmes should be conducted for students as part of the orientation programme for newly admitted students in medical schools. These stress management workshops will be helpful to improve the knowledge of students on stress and will enhance their ability to cope with stresses associated with a demanding professional medical life.

They should be taught various relaxation techniques like meditation, yoga, which can help them cope with stress better, reduce test anxiety and avoid stress burnout. Professional, personal development, mental wellness and psycho educational lectures, soft skill development classes should be provided and taught students for their personal and mental growth.

Communication with therapists can prepare the students to cope with anxiety better. There is also need for improving social support system. Studies have suggested that social support system plays an important role in combating stress.

Informal mentorship programmes in which a teacher or lecturer act as a mentor to a group of students should be organised to help them with their academic and non-academic problems can be very effective. This support system provides opportunity for students to express their emotions, resolve academic and emotional conflicts, enhance affiliation with

peers and help them adapt positively to environmental stresses.

School-based efforts should also be taken into consideration and efforts should be taken to reduce excessive academic stress. Personality and behavioural factors associated with test-anxiety should be given consideration. It is essential to monitor the stress levels and sources contributing to the anxiety of medical students.

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