Research Paper Statistics

Comparision of Levels of Anxiety Among Health Sciences Students

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ABSTRACT

Medical and pharmacy students' endeavor to become medical doctors and pharmacists respectively undergoes a lot of challenges and hardship. There are some frustrations, fear, stress, among others, which they used to suffer before they graduate. Whose anxiety level is higher among these two sets of students? This study compared the test anxiety state among year one medical and pharmacy students. Sample of 260 students were selected through simple random sampling technique from the Near East University, Turkish Republic of Northern Cyprus, who are in 2015/2016 academic year. Correlation and regression were used to test the association between the variables and to fit the best model. Mann Whitney U non-parametric test was used to compare the anxiety level between the students since some of the assumptions of using the parametric test are violated. The result shows a statistically significant difference between the anxiety level in medical students and that of pharmacy students, and the descriptive statistics shows that the median anxiety score of medical students is higher than the median anxiety score of pharmacy students.

KEYWORDS : Medical students; Pharmacy students; Anxiety levels

1.0 Introduction

A lot of problems have been bothering students especially in tertiary institutions in their endeavor to acquire certificates or to graduate from a particular study. Students from health sciences are believed to suffer a lot compared to students from other faculties/fields. This is attributed to the nature of their studies, the types of lectures they used to being offered, the required period for them to graduate and/or the syllabus they need to cover for them to acquire the certificates. These cause a lot of anxiety in them. Some people opine that pharmacy is harder than MBBS (Medicine) and some opposed the opinion. It is likely that pharmacy students' level of anxiety is higher than their medical counterpart and vice versa. Therefore there is a need to compare the anxiety level among these two sets of students to identify which group has the highest anxiety level, the causes of the anxiety and proffer ways to overcome it.

Anxiety is a biased feeling of discomfort, apprehension, unease or fearful concern accompanied by a host of somatic and autonomic manifestations [3]. [7] States that an emotion characterized by physical changes such as increased or decreased in blood pressure, feelings of strain and nervous thoughts is referred to as "Anxiety". Anxiety Disorders is a situation whereby symptoms of anxiety are irrational, prolonged, disproportionate and/or severe which occur in the absence of stressful events or stimuli or interfere with everyday activities [2]. One-eighth of the total population worldwide is affected by anxiety disorders [3]. Anxiety, depression and psychosis are the main concern for the majority of people with two or more concurrent disorders [10]. It is hard for people to achieve daily activities and to mingle well with others or to study due to anxiety disorders [4]. Anxiety disorders and mood comprising depression, bipolar disorder, generalized anxiety disorder panic disorder, agoraphobia, social anxiety disorder and dysthymia are regarded to be the most popular mental illnesses [5]. People who have a family history of anxiety are at risk for developing anxiety disorder [1]. Symptoms of anxiety disorders that are too common are regarded as usual by-products of life strain which are not assumed in relation to their separate essential psychopathology [8].

Luckily there are various good solutions or treatments for anxiety disorders, but unfortunately, a lot of people do not pursue the treatment due to their failure to recognize the severity of their symptoms or they are not serious to seek assistance [11]. Early treatment can help overcome the problem successfully, thus, anxiety disorder is treatable [4]. Primary care physicians used to treat most anxious patients [9]. Coping or dealing with anxiety and stress is a well-planned and organized group experience in which the objectives are to guide participants realize the concepts of anxiety, enable them to identify and recognize sources of anxiety and stress in their daily activities which include academic environment, to provide them with strategies for coping with anxiety and stress, and to enable them acquire practical experience in applying them [6].

Anxiety and depression states can be detected using a reliable and well-developed instrument known as self-assessment scale in the hospital medical outpatient clinic setting [12]. Various symptoms of anxiety in adolescents and children can be measured using three rating scales [16]: the Cognitive and Somatic State and Trait Anxiety Scale (CSSTAS) [13], the Revised Fear Survey Schedule for Children (RFSSC) [14] and the Revised Children's Manifest Anxiety Scale (RCMAS) [15].

2.0 Materials and Methodology

This study presents the test anxiety state among year one medical and pharmacy students of Near East University, Turkish Republic of Northern Cyprus, who are in 2015/2016 academic year. Two hundred and sixty (260) students were randomly selected to fill the anxiety scale forms. Beck anxiety scale was used the data were collected. Students' anxiety score where categorized into mild (scoring 0-16), moderate (17-30) and severe anxiety (31 and above). Correlation and regression analyses were used to test the relationship between the variables with model:

Chi-square test was used to test any statistical significance among the variables. Mann Whitney U was also used to determine the difference between anxiety levels of medical students and pharmacy students.

3.0 Results and Discussions

Correlation analysis was firstly tested to measure the strength and direction of linear relationship between the ages, gender, marital status, department and anxiety score. The result shows that department is the only variable that is significant at 5% with p-value and correlation

coefficient of 0.000 and -0.23 respectively. Variables that are significant at 20% are included in the model. Table 1 shows the distribution of the multiple regression analysis and the regression coefficients.

Table 1
Coefficientsa

Model B		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Std. Error	Beta			
1	(Constant)	36.791	10.915		3.371	0.001
	Gender	1.311	1.529	0.053	0.857	0.392
	Age	-.031	0.463	-0.004	-0.068	0.946
	Marital status	-4.111	5.688	-0.046	-0.723	0.471
	department	-3.400	1.572	-0.137	-2.162	0.032
a. Dependent Variable: Anxiety score						

The model was reduced to simple linear regression by selecting department as the only significant variable from the previous model. The result from table 2 shows a p-value of 0.001.

Table 2
Coefficientsa

Model B		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Std. Error	Beta			
2	(Constant)	37.746	2.118		17.823	0.000
	Department	-4.634	1.417	-.200	-3.271	0.001
a. Dependent Variable: Anxiety score						

Therefore the partial regression model of anxiety score was:

.Since some of the parametric assumptions are not satisfied, Mann Whitney U test was used to determine whether the anxiety scores of the two departments are significantly different.

The table below shows the Mann Whitney u test result with p-value of 0.000, it was concluded that the anxiety scores for the health science students from department of medicine and pharmacy are significantly different; referring to their median levels, medical students with 34.00 median score is higher than that of pharmacy students (28.00). This shows that medical students have higher level of anxiety than pharmacy students.

Table 3
Mann whitney

	Anxiety score
Mann-Whitney U	5979.500
Z	-3.700
Asymp. Sig. (2-tailed)	0.000

The figures below were also used to support the above result. Department of medicine is having the highest number of students with severe test anxiety, while pharmacy department is having the highest number of students with moderate test anxiety level.

Figure 1

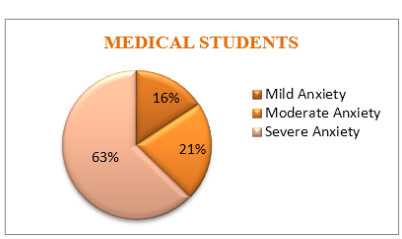
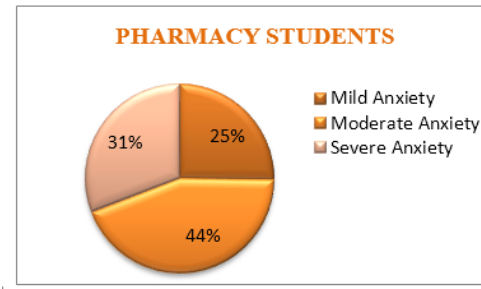


Figure 2



4.0 Conclusion

The study shows a significant difference in the anxiety level of the two health sciences students. The severe anxiety level in medical students is about 2 times higher than that of pharmacy students and also the overall median anxiety score of medical students is higher than that of pharmacy students. This may be due to a lot of factors such the nature of their study which includes difficulties of the subjects of study which made them to be very committed. Unlike pharmacy students, medical students may not proceed to the next level if they fail the exams during a specific period of the study and this cause a lot fear, stress, frustration and aggression in them. Although the level of anxiety of medical students is higher than their pharmacy counterpart, the pharmacy students also use to suffer some level of anxiety in their endeavor to acquire certificates which is attributed also to the nature of their studies. Government, parents and the institutions need to identify the causes of this anxiety and devise the means of helping the students to get rid of them through effective guidance and counseling, among others.

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