Journal of the Institute of Medicine 2001; **23**: 60 –57 Original Article

Anxiety in medical students: relationship with examination

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ABSTRACT

High level of anxiety has been reported to impair academic performance of the students. Present study aims at measuring the level of anxiety in medical students before and after their annual examinations. Students of a single batch of MBBS programme were included in the study. Anxiety scores were rated using Zung Anxiety Rating Scale. Mean pre-examination anxiety score was 32.16±8.12, whereas post-examination scores was 27.00±6.64. The difference was statistically significant (t=2.424, p<0.05). The effects of high level of anxiety in the level of performance need to be studied.

Keywords: Anxiety score; Zung rating; MBBS; Academic performance.

INTRODUCTION

Academic responsibilities are a common cause of anxiety. Moderate amount of anxiety helps academic performance by creating motivation. However, high anxiety level interferes with memory, and concentration. Both of which are required for optimum academic performance.[1] Students dread examinations. Their sleep is disturbed and they are distressed to the extent that they are lost. Medical students being loaded with heavy texts frequently suffer from anxiety. It has been shown that the levels of adrenaline and noradrenaline increases at examination

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times in medical students being related to the experienced stress.[2] The need to study the effects of stresses and use of coping strategies by them has been suggested by Notman *et al.*[3] Same group of authors[4] had previously mentioned about the trainee going through various adaptive processes throughout the training period. The present study aims at measuring the level of anxiety of a group of medical students, before and after their annual examination.

METHODOLOGY

The students of a single batch of MBBS program were included in the study. After obtaining the informed consent all of the students were distributed the self administered Zung anxiety rating scale[5] three days before their basic sciences final examination. They were again distributed the same after all of them passed and returned to college following a long holiday. The data were introduced into SPSS program[6] and interpreted by applying the Students' test at 5% level of significance.

RESULTS

Thirty-six students, predominantly males (N=31, 86.1%), with mean age 23.78±1.91 years participated in the study. Table I describe pre- as well as post-examination scores of anxiety. The observed difference between the anxiety scores was statistically significant (t=2.424; p<0.05). The observed differences between two sexes were not statistically significant.

Table I

	Mean Anxiety Scores of		
	Male	*Female*	*Total*
Pre-examination	30.37±8.42	35.40±4.93	31.16±8.12
Post-examination	26.71±7.04	28.80±3.11	27.00±6.64

DISCUSSION

Previous studies have used various cut off points above which definite anxiety have been suggested. Gomez *et al*[7] have taken 40 as the dividing line between anxiety and non-anxiety sates. Saletu-Zyhlarz *et al* [8] have used 31 as the point. Considering the former value, both, pre as well as post examination mean scores suggest non-anxiety states. The pre-examination score would be counted as anxiety state when the latter value is used. Using either value, when without under stress of examination, their anxiety level was found within the normal range. Level of anxiety is however definitely increased at the exam times and the observed difference was statistically significant. The region for this and for the increased level of anxiety before the examination as well as the effects of the increased level of anxiety in the level of performance can be studied. large volumes of text and the uncertainty of the outcomes of the examination and nervousness during oral and written examination are our guesses. A next step could be determining the nature of the personal and environmental resources that students used to cope with stress, and to assess the effectiveness of these adaptational responses.

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