



**Short Report:**

**Psychological Morbidity in Students of Medical College and Science and Art College Students - A Comparative Study.**

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**Abstract:** Considering the importance of quality of life in medical students we have conducted a cross sectional & descriptive study on screening of mental illness of 60 medical students of prefinal year and comparing it with 60 students of third year of Science and Art College. Students were selected via random sampling. GHQ-12 was used as a screening tool and after obtaining scores students were graded in 3 categories - individuals screened positive for psychological morbidity were of Grades 2 and 3 and individuals screened negative for psychological morbidity were of Grade 1 and they were compared according to college, gender & residence. Students screened positive for psychological morbidity as per GHQ-12 were found higher in medical college (87%) as compared to Science and Art College (45%) and a statistically significant association was found between psychological morbidity and medical students. Psychological morbidity was not significantly associated with residence and gender.

**Key Words:** GHQ -12; Medical psychological morbidity

**Introduction:**

Stress exists from the change in an individual's thinking and their lifestyle nowadays. Now, individuals have changed in their perceptions and the way they interpret this life. Students in their teens are the ones who are going through the transitional phase, which is an intermediate of childhood and adulthood. During the teen years, a lot of biological, physical, mental and emotional changes are happening, as well as the changes in responsibility and role. In order to stabilize these changes, the students are always confronted with problems and conflicts. For some students who are not capable of dealing with it, the changes will create stress and tension to them. If it is not dealt with in the early stages, the student may experience mental problems.<sup>1</sup> Medical education is perceived as being stressful. It is characterized by many psychological changes in students. Medical students encounter multiple anxieties in transformation from insecure student to young knowledgeable physician. There is a growing concern about stress in medical training. Studies have observed that medical students experience a high incidence of personal distress during their undergraduate course.<sup>2</sup>

**Materials and Methods:**

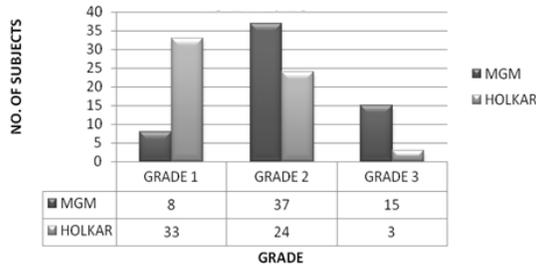
A cross-sectional study was conducted among students of Mahatma Gandhi Memorial Medical College (MGM Medical college) and Holkar Science and arts College, Indore, between June 2010 to November 2010. Sixty five students were enrolled in a particular section of science in Holkar College. The respondents completed a self-administered designed questionnaire and a standard instrument - The General Health Questionnaire (GHQ 12). The GHQ belongs to a family of instruments for assessing psychiatric morbidity in both community and non-psychiatric settings.<sup>1</sup> The original GHQ comprised of 60 items and versions with fewer items have been developed from this, e.g. the GHQ - 30, GHQ - 28 and GHQ- 12.<sup>3,4</sup> The GHQ -12 is a brief, well validated 12-item instrument used to identify psychiatric morbidity,<sup>3</sup> designed for assessing and detecting psychiatric morbidity.<sup>5</sup> Six of the items are positively worded; the other six are negatively worded. There are four response categories for each item, i.e. "Better than usual", "Same as usual", "Less than usual" and "Much less than usual".

The instruments were administered in 1-hour sessions and participation was voluntary. The original dichotomous scoring system (0-0-1-1), has been advocated to identify individuals with existing psychiatric morbidity. In this procedure, the first two anchors represent non-presentation of symptoms and so are both scored zero. The next two responses represent a presentation of symptoms and are therefore are scored as one. With Goldberg scale used, out of four options, 0= 2 options referring to less psychological morbidity and 1= 2 options referring to more psychological morbidity; maximum score is 12, minimum is=0, with a range of 0 to 12. Threshold score is 4 i.e. score more than 4 is considered positive in screening test. Score of 0 to 4 is graded as 1, 5 to 8 as 2 and 9 to 12 as 3. Thus individuals screened positive for psychological morbidity are of Grades 2 and 3 whereas individuals screened negative for psychological morbidity are of Grade 1.

Only 60 students gave consent for involvement in the study. The responses were noted and the statistical package SPSS, version 12.0, was used for data analysis.

**Results:**

In MGM Medical College, the grade detected in highest frequency was grade 2 (score 5-8)>grade 3(9-12)>grade 1(1-4) i.e. 87% students were screened as positive for GHQ-12 where as only 45% students were screened as positive for GHQ-12 in Holkar Science College, Indore.(Fig 1)



**Figure 1: Distribution of students according to GHQ 12 scale.**

**Table 1: Comparison of Students according to GHQ -12 responses.**

Parameters	MGM Medical College (in Percentage)	Holkar Science College (in Percentage)
Able to concentrate	83	70
Loss of sleep over worry	38	26
Playing a useful part	13	47
Capable of making decisions	76	43
Felt constantly under strain	58	23
Couldn't overcome difficulties	35	22
Able to enjoy day-to-day activities	48	70
Able to face problems	35	48
Feeling unhappy and depressed	50	20
Losing confidence	27	18
Thinking of self as worthless	30	13
Feeling reasonably happy	18	67

**Discussion:**

With the advent of globalisation and economic boom, even developing nations are slowly moving from the infectious diseases to life style diseases or chronic diseases. More and more competition in every field has threatened the economic stability of an individual and a family, thus leading to stress and psychological morbidity. This competition is on continuous rise in medical field and this has lead to stress which is impairing the quality of life in medicos. This negative effects of long and tiring medical education on the psychological status of students have been shown in several studies.

Our study done on psychological morbidity via GHQ-12 also revolves around medical students. Considering the limited number of interviewed students and their proportion of the original sample (n = 120), we do not present the numbers as estimates of prevalence. In our study the number of medical students screened positive for psychological morbidity as per GHQ-12 (87%) are more than most other studies from India and from other countries like Nepal and Pakistan. Guthrie et al in U.K. in a 5-year prospective longitudinal cohort study found that a small group of students repeatedly experience psychological distress during their medical training.<sup>6</sup> In Pakistan a cross-sectional descriptive study was carried out on all interns and residents at the Aga Khan University Hospital by use of General Health Questionnaire (GHQ-12) and found that more than 46% of the trainees scored over the threshold of more than 4 for morbid stress.<sup>7</sup> Blanco and his colleagues, who have studied mental health of college students, concluded that “urgent action” is needed to improve detection and early treatment in this group.<sup>8</sup> Our study did not show any significant association of stress with gender and residence.

In the present study 12-item GHQ was used. Earlier studies from United Kingdom used a more conservative cut off score of 3–4 for allowing comparability of results with other studies from United Kingdom. We considered a cut off score of 4–5 to identify probable cases. However, the actual cut off score chosen depends on the purpose and context of each study, and relates to the relative importance of sensitivity and specificity . But some studies on stress have either not used GHQ or used various other instruments for measuring the stress levels among the medical students There are also variations in the socio-cultural contexts and the medical curricula of the settings where such studies were carried out. Hence the results of the studies cited above may not be comparable.

We carried out our survey during the middle of the session to avoid the stressful time of sessional and university examinations. Therefore, the stress status measured may represent the natural level of stress among medical students.

Despite the variability of cut-offs used to estimate the prevalence, psychiatric morbidity reported in our study can be considered as high.

Cross-sectional design did not allow us to study the cause-and-effect relationship of psychological morbidity with stress and coping strategies. Therefore a prospective study is necessary to study the association of psychological morbidity with demographic variables, sources of stress and coping strategies.

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