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Study on first year students in Shyam Shah Medical College Rewa in psychosocial adjustments, general self-efficacy and psychological distress

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Abstract
This study examined the study on first year students in Rewa Medical College in psychosocial adjustments, general self-efficacy and Psychological distress. A cross-sectional study was designed and data was collected from 50 first year medical students of a government medical college in Rewa (M.P.). According to GHQ-12, 39.7% (95% CI 29.6-50.7) students had psychological distress; it was slightly higher in male students (33.3%) than their female counterparts (30.0%). The prevalence of psychological distress among first year medical students was high. The causes of psychological distress among medical students should be recognized and strategies should be designed to address those issues.

Keywords: psychosocial adjustments, general self-efficacy, psychological distress

Introduction

Psychological distress is a general term used to describe unpleasant feelings or emotions; it is psychological discomfort that interferes with our activities of daily living. Psychological distress can result in negative views of the environment, others, and the self. Sadness, anxiety, distraction, sleeplessness, lack of concentration, inability to take decisions, unhappiness and symptoms of mental illness are manifestations of psychological distress. Mclean, Strongman, & Neha, (2007) [1], define psychological distress as a negative emotional condition that is an adjunct to the appraisal of threat, harm or loss. According to Talala, (2013) & Korkeila (2000) [2-3] defined psychological distress as 'a non-specific syndrome that covers constructs such as anxiety, depression, cognitive problems, irritability, anger and obsession-compulsion.' Psychological distress is highly prevalent in the general population, estimates being between 5–48%. Psychological distress has been proposed as one probable explanation in mediating the socio-economic gradient in health and mortality. Psychological distress is often experienced as a part of normal life, a consequence of persistent or temporary adversities, such as distress due to normal life transitions, challenges and losses, in education and work, family life, relationships, ageing and so on, and is associated with social deprivation, exclusion or persecution (Bolton, 2010) [4]. According to McDowell and Newell (1996) [5], measures of psychological distress have been used as a strategy to evaluate psychological well-being. Psychological distress can be thought of as a maladaptive response to a stressful situation. Psychological distress occurs when external events or stressors place demands upon us that we are unable to cope with.

Medical college is recognized as a stressful environment that often exerts a negative effect on the academic performance, physical health and psychological wellbeing of the student. Compared to students of other academic streams, medical students face higher stress (Dyrbye *et al.* (2008) [6]. In a study conducted in the USA, 57% of undergraduate medical students were found to be under psychological stress (Mosley *et al.* 1994) [7].

First year medical students are expected to learn and master a huge amount of knowledge and skills within short time. Undergraduate medical students have been the most distressed group of students compared to any other course undergraduates and this stress has serious consequences which may lead to the development of depression and anxiety (Wolf and Kissling, 1984, Kumar *et al.* 2013) [8-9].

Studies on psychological problems such as stress, depression and anxiety among medical students have found that these disorders are under diagnosed and under treated. Failure to detect these disorders unfortunately leads to increase in psychological morbidity with unwanted effects throughout their careers and lives and there have also been reports of significant psychological morbidity in young doctors (Ko *et al.* 1999) [10]. Early detection of psychological problems shortens the duration of an episode and results in far less social impairment in the long term. It is therefore important to be aware of the symptoms of psychological stress in medical students, in order to facilitate early detection and treatment of these problems (Tyssen *et al.* 2001) [11].

Objectives

1. Student teacher bodies which are capable of providing primary preventive measures such as psycho educational lectures, seminars on stress management and therapeutic techniques like crisis intervention and counseling may be setup at medical college.
2. Lower general self-efficacy was found to be significantly associated with psychological distress.
3. In the present study, psychological distress was found to be high among first year medical college students.

Materials and Methods

Study Design

Shyam Shah Medical College is an institution of Madhya Pradesh State Government. It is one of the oldest medical colleges of the country with glorious and rich heritage. It is located in Rewa - the land of white tigers which is also gaining foothold in the field of education. The college was initially established in 1963 with 60 students in the first batch.

It has reached its present intake of 100 undergraduate (MBBS) and 50 post-graduate (MD/MS/Diploma). The college is affiliated to A.P. Singh University, Rewa and approved by Medical Council of India, New Delhi. It is one of premier institution of the Madhya Pradesh. The college provides all the basic facilities for the Medical Courses to its students. Exclusion criteria were those who were not willing to take part in the study and those not available at the time of administering the questionnaire. Finally, data was collected from 88 students.

Study tool

The questionnaire used in the study consisted of four parts, Socio demographic data, 12 item Goldberg's general health questionnaire (GHQ-12) [12]10, Schwarzer's general self-efficacy scale (GSES) [13-14] and Pareek's preadolescent adjustment scale (PAAS) [15].

Goldberg's General Health Questionnaire (GHQ-12): The questionnaire10 contains 12 items. Scores were given based on four point Likert scale as 0-strongly agree, 1-agree, 2-disagree and 3-strongly disagree. Six questions are positively phrased and the other six are negatively phrased. Scores will be reversed for the negatively phrased questions. The scale can be used from 16 years and above. Maximum score will be 36 and the scores above 12 were taken as the cut-off indicating psychological distress.

Schwarzer's General Self-efficacy scale (GSES): The scale11, 12 contains 10 items and scores were given based on four point Likert scale as 1-not at all true, 2-hardly true, 3-moderately true and 4-exactly true. Summing up the response of all the 10 items will yield the final composite score with a range from10 to 40. Higher the score, better the self-efficacy.

Pareek's preadolescent Adjustment Scale (PAAS): The scale 13 consists of 40 items: home (9), school (8), peers (8), teachers (8) and general (7). Slight modifications were made in the questions for 'school' since they were administered to college students. For each area of adjustment a separate score was obtained. The total of the five scores gives the score for the total adjustment. Responses were given in terms of 'yes' or 'no'.

These scale values are positive as well as negative for different items. Scores for each sub scale are obtained by adding the scale values on the items checked by the student. The possible score range for each sub-score are home (-10 to +10), college (-10 to +6), peers (-10 to +6), teachers (-10 to +6) and general (-6 to +6). High positive scores indicate high adjustment in that area, while high negative scores indicate a high degree of mal adjustment. The total adjustment score is obtained by adding scores on all the sub-scale. It ranges from -46 to +34. Though called preadolescent scale, PAAS has been used in Indian studies for adolescents of all age groups and also in young adults and it has also got acceptable level of validity and reliability and significant inter correlation between adjustments on the five areas of adjustment (Pareek *et al*. 1975) [15].

Ethical issues

Permission for conducting the study was obtained from Institutional Ethical Committee. Relevant information was provided about the aims and objectives of the study and the methodology the methodology adopted. Students were assured about their confidentiality and informed written consent was obtained. In the end, different stress management techniques were taught and guidance services for personality development were provided to the students.

Statistical analysis

Data was analyzed using SPSS version [16]. Chi square test was used for drawing statistical inferences and p values of <0.05 were considered significant.

Results & Discussion

Of 50 students who participated in the study, 36 (37.0%) students were of 18 years of age and 30 (60.0%) were males. Majority of the students belong to nuclear family, 40 (80.0%) and 24 (48.0%) students had one sibling. About the educational statuses of the student's fathers, most of them were post-graduates 12 (24.0%) and 28 (56.0%) were graduates. Among mothers, 10 (20.0%) were post-graduates and 24 (48.0%) were graduates. Ten (20.0%) students reported their parents' occupation as teachers, clerk and farmer. Twenty four (48.0%) students came under Revised Kuppuswamy's socio economic class I (Kumar *et al.* 2012) [17]. The median family income per month was 20,000 rupees and the median mark scored by the students in their final school exams was 80%. Table 1 shows distribution of students according to socio demographic profile.

Table 1: Distribution of students according to socio-demographic profile (n=50)

Socio-demographic factors		Respondents (%)
Age in completed years	17	6 (12.0%)
	18-19	36 (77.0%)
	20 and above	8 (16.0%)
Gender	Male	30 (60.0%)
	Female	20 (40.0%)
Family type	Joint	10 (20.0%)
	Nuclear	40 (80.0%)
Number of siblings	0	2 (4.0%)
	1	24 (48.0%)
	2	16 (32.0%)
	>2	8 (16.0%)
Father's education	Illiterate	1 (2.0%)
	High School	9 (18.0%)
	Graduate	28 (56.0%)
	Post graduate	12 (24.0%)
Father's occupation	Business	6 (12.0%)
	Engineer	5 (10.0%)
	Doctor	4 (8.0%)
	Teacher	10 (20.0%)
	Clerk	10 (20.0%)
	Farmer	10 (20.0%)
	Others	5 (10.0%)
Mother education	Illiterate	2 (4.0%)
	High School	14 (28.0%)
	Graduate	24 (48.0%)
	Post graduate	10 (20.0%)
Mother occupation	House wife	27 (54.0%)
	Teacher	16 (32.0%)
	Others	7 (14.0%)
Socio-economic class	I	24 (48.0%)
	II	18 (36.0%)
	III	8 (16.0%)

Psychological distress

The number of students scoring 8 and above in Gold-berg's GHQ-12 were 15 (62.5%, 95% CI 1.16-12.12) and found to be in psychological distress. It was slightly higher in female students 6 (30.0%, 95% CI 0.34-3.95) than that of male students 10 (33.3% 95% CI 0.34-3.95). But there was no

significant difference between psychological stress and gender *(p*-0.804).

Psychological distress was found to be more in students who had scored 80% or more in their final school exams than those who had scored less than 80% and the difference was found to be statistically significant (*p*-0.0247). But there was no statistically significant difference of psychological distress with Gender (p-0.804), type of family (p-0.775) and number of siblings (p-0.705) as shown in Table 2.

Among the different socio economic classes, (Revised Kuppuswamy's classification, 2012) [17] psychological stress was found to be more in class II with 50% (95% CI 28.8-71.2), followed by class III at 41.2% 95% CI 19.4 – 66.5) and class I at 34.7% (95% CI 22.1-49.7).

Table 2: Distribution of students according to psychological stress and its relation with various socio-demographic factors (n=50)

Socio Demographic factors		Psychological distress		p- value	Crude OR (95% CI)
		Present (%)	Absent (%)		
Gender	Male	10 (33.3%)	20 (66.6%)	0.804	0.16 (0.34-3.95)
	Female	6 (30.0%)	14 (70.0%)		
Family type	Joint	4 (40.0%)	6 (60.0%)	0.775	0.81 (0.19-3.33)
	Nuclear	18 (45.0%)	22 (55.0%)		
Number of siblings	≤1	10 (38.5%)	16 (61.5%)	0.705	1.25 (0.39-3.98)
	>1	8 (33.3%)	16 (66.7%)		
Marks in school final exams	≥80%	15 (62.5%)	9 (37.5%)	0.0247*	3.75 (1.16-12.12)
	<80	8 (30.7%)	18 (69.3%)		

*p-value <0.05

General self-efficacy

The median monthly family income was thirty thousand rupees. It was found that general self-efficacy was higher in study participants whose monthly family income was higher than the median than those whose family income was lower than the median income (*p*-0.024). However, there was no significant difference of general self-efficacy with Gender (*p*-0.355), type of family (*p*-0.119), number of siblings (*p*-0.272) and academic achievement (*p*-0.144) as shown in Table 3.

Table 3: Distribution of students according to general self-efficacy and its relation with various socio-demographic factors (n=50)

Socio Demographic factors		General self-efficacy		p- value	Crude OR (95% CI)
		High (%)	Low (%)		
Gender	Male	14 (46.7%)	16 (53.3%)	0.355	0.58 (0.18-1.83)
	Female	12 (60.0%)	8 (40.0%)		
Family type	Joint	7 (70.0%)	3 (30.0%)	0.119	3.15 (0.71-14.01)
	Nuclear	17 (42.5%)	23 (57.5%)		
Number of siblings	≤1	8 (30.7%)	18 (69.3%)	0.272	0.52 (0.16-1.67)
	>1	11 (45.8%)	13 (54.2%)		
Monthly family income	≥30,000	7 (26.9%)	19 (73.1%)	0.024*	0.26 (0.08-0.86)
	<30,000	14 (58.3%)	10 (41.7%)		
Marks in school final exams	≥80%	16 (66.7%)	8 (33.3%)	0.144	2.33 (0.74-7.34)
	<80	12 (46.2%)	14 (53.8%)		

*p-value <0.05

The study identified that 48.0% of first year medical college students were under psychological distress. The results were comparable to the results of similar studies conducted among medical students in Malaysia (Sherina *et al.* 2004) [18] (41.9%) and England (Firth 1986) [19] (31.2%). The findings show a relatively higher prevalence of psychological distress in both male and female medical students than the studies conducted among similar age group students belonging to other academic streams (Warbah *et al.* 2007) [20] and also in general population (Mishra *et al.* 2011) [21]. In this study it was found that gender was not associated with stress. Stress was also not associated with students' age, socio-economic status, family type and number of siblings.

The study results show that Shyam Shah medical college towards college was seen in 19.31% and Shyam Shah medical college with teachers in 9.11% students. Psychological distress was found to be significantly associated with college and teacher Shyam Shah medical college. These findings show that those students who find it difficult to cope up with the college, teachers and academic curricula are experiencing more psychological distress.

Conclusion

The psychological distress was high among first year medical students. Lower general self-efficacy was the main cause of distress. Shyam Shah Medical College towards and teachers acted as additive factors. By identifying the symptoms of psychological distress among first year medical college students, suitable actions can be undertaken at an earlier stage to prevent psychological morbidity among medical students and young doctors.

Screening at the time of entrance and further evaluation of positive cases by a psychiatrist can establish baseline data. Student teacher bodies and counseling services should be setup which is capable of providing primary preventive measures such as psycho educational lectures, seminars on stress management, and therapeutic techniques like crisis intervention and counseling. Students should increase their

social interaction and develop good relations with seniors and faculty members. Campuses should be made more students friendly, encouraging extracurricular activities.

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