

Gender Difference in Psychosocial Perspective of Students Entering Professional College – A Cross Sectional Study on Medical Students.

Prasad BK*, Sindhuja A

Department of Physiology, SS Institute of Medical Sciences and Research Centre, Davangere–577005, Karnataka, India.

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*For Correspondence

Department of Physiology, SS
Institute of Medical Sciences
and Research Centre,
Davangere–577005, Karnataka,
India.

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ABSTRACT

The aim of the present study was to examine whether there is a gender based difference in exposure to socio-economic, lifestyle & psychosocial aspects and their role in fostering health inequalities. Overall the results obtained in the current study support the notion that there is difference in psychosocial aspects among the two groups though not statistically significant for stress, anxiety and depression ($p > 0.05$). However sleep parameters were more affected in male than the female population. These results can be used as a subjective measure to assess stress related problems. This plays a major role towards our understanding of gender differences and the need for health care planners to consider varied effects of psychosocial aspects in designing and implementing health policies.

INTRODUCTION

MBBS course is the toughest course among all professional courses including Engineering, Economics, BCA or other technical courses. Medical schools undertake an extensive selection process to identify intelligent and altruistic individuals with a strong commitment to these goals and then spend four years trying to prepare those individuals to achieve them [1].

The professional educational programme is highly stressful. A minimal amount of stress is necessary to spark in a healthy competitive spirit while too much of the same can be counter-productive. Stress, quality of life and sleep are all interrelated aspects each impinging on the other. Living away from home, making the transition to independent, work load and feeling overwhelmed by the information load that should be mastered have been hypothesized to contribute to this decline of mental health, in students [2].

Males and females differ from each other in many aspects of life like visuo social ability, self-confidence. Females show emotional responses whereas behavioural responses are expressed by males. Life style related issues including lack of physical activity and improper nutrition is significantly more common among female students as already reported by other authors. This may be due to weight consciousness or psychological preponderance of females towards eating disorders. Social pressure is brought to bear on females from an early age not to pursue higher education. One might therefore expect that women who overcome these pressures and enrol in higher education would be well equipped with both the motivation and the aptitude to succeed. This might be the cause for them to excel academically than the men [3,4].

These facts emphasize that perception and coping of psychosocial factors will differ based on gender. The results of studies on one region cannot be generalised to the other. This study is an attempt to explore the perception of stress and allied stressor among male and female medical students who have just entered into professional life.

METHODOLOGY

The study was carried out at S.S.Institute of Medical Sciences & Research Centre, Davangere, Karnataka which is a private medical college affiliated to Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka.

The purpose of the study was communicated well in advance to the students and their participation in research was voluntary. Data collection was done in the first quarter of first MBBS for the academic year 2013-2014. Negative emotional state was assessed using Depression Anxiety Stress Scale (DASS) [5] and sleep was assessed using Pittsburgh Insomnia Rating Scale (PIRS) [6]. The participants included 71 male students and 62 female students. They were assembled in the lecture hall and the instructions were given in mass by a single observer. They were instructed to fill the questionnaire independently and asked to not spend more than a minute for each question. After completing the questionnaire they were then asked to select options from the common template which enlisted various psychosocial factors leading to depression, anxiety, stress whichever was best applicable to them.

Questionnaire

DASS is a 42 item questionnaire includes three self-report scales designed to measure negative emotional states of Depression, Anxiety and Stress. Each of these scales contains 14 items. The depression scale assesses dysphasia, hopelessness, devaluation of life, self-deprecation, lack of interest or involvement, anhedonia and inertia. Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety and subjective experience of anxious effect. Stress scale is sensitive to levels of chronic nonspecific arousal, assesses difficulty relaxing, nervous arousal and being easily upset/agitated, irritable/over reactive and impatient. Respondents were asked to use four point severity/ frequency scales to rate the extent to which they have experienced each state over the past week. Scores of D, A, and S was calculated by summing the scores for relevant items. The scores for each of the respondents over each of the subscale were then evaluated as per severity rating given by manual.

PIRS contains 65 questions which assess distress, sleep parameters and quality of life. The respondents were asked to use four point severity/ frequency scales to rate the extent to which they have experienced each state over the past week. Scores for the above parameters was calculated by summing the scores for relevant items.

A common template containing attributable psychosocial factors of anxiety, stress and depression was given and the students were asked to mark one or more factors which ever was applicable to them. The template contained proven psychosocial factors like academic demands, financial needs, new living environment, social habits, psychological makeup, physical health problems, personality factors etc [7,8,9]. Students were also emphasized to mention reasons other than those in the template, if they were any.

Statistical analysis

Statistical analysis was carried out using SPSS trial version 16.0. Mean and standard deviation were calculated for all the parameters for both the gender and correlation between different parameters was assessed.

RESULTS

Table 1

DASS	Gender	N	Mean	Std. Deviation	Std. Error Mean
D SCORE	M	71	8.86	7.965	.945
	F	62	8.90	6.523	.828
A SCORE	M	71	8.69	6.861	.814
	F	62	7.84	5.876	.746
S SCORE	M	71	10.37	6.685	.793
	F	62	10.56	6.704	.851

Table 1 shows the mean scores of depression, anxiety and stress among male and female participants

Table 2

Sleep Parameters	Gender	N	Mean	Std. Deviation	Std. Error Mean
DISTRESS SCORE	M	71	39.46	22.967	2.726
	F	62	36.10	19.544	2.482
SLEEP SCORE	M	71	8.04	4.537	.538
	F	62	6.24	4.159	.528
QUALITY OF LIFE	M	71	12.28	5.370	.637
	F	62	11.24	4.981	.633
TOTAL	M	71	59.79	29.725	3.528
	F	62	53.58	25.314	3.215

Table 2 shows the mean scores of sleep parameters among male and female participants

Table 3

Parameters considered for Gender difference	Sig. (2-tailed)
D SCORE	.972
A SCORE	.447
S SCORE	.865
DISTRESS SCORE	.368
SLEEP SCORE	.019*
QUALITY OF LIFE	.251
TOTAL	.200

Unpaired T Test *P<0.05

Table 3 shows the p value of difference in mean scores between male and female participants. Significant difference noted only in distress score.

Table 4

Attributable psychosocial factors	Males (71)	%	Females (62)	%
Stress				
1. Greater academic demands	35	49.3	21	33.87
2. Being on one's own in a new environment - with new responsibilities	19	26.76	24	38.71
3. Changes in family relations and one's social life	5	7.04	5	8.06
4. Financial responsibilities	7	9.86	7	11.29
5. Exposure to new people, ideas, and temptations	20	28.17	17	27.42
6. Being away from home, often for the first time	19	26.76	23	37.10
7. Making decisions, on a higher level than one is used to	13	18.31	10	16.13
8. Awareness of one's sexual identity and orientation	2	2.82	0	0
9. Preparing for life after graduation	8	11.27	5	8.06
10. Psychological make-up low self-esteem, pessimism	4	5.63	2	3.23
Depression				
1. Living away from family for the first time	21	29.58	20	32.26
2. Missing family or friends, Feeling alone or isolated, Experiencing conflict in relationships	26	36.62	20	32.26
3. Facing new and sometimes difficult school(college)work	32	45.07	31	50.00
4. Worrying about finances.	14	19.72	3	4.84
5. Loss of member of family / illness of parents	3	4.23	2	3.23
Anxiety				
I. Family history of mental health problems	0	0	0	0
II. Ongoing stressful events				
a. job stress or job change (as a medical student)	4	5.63	11	17.74
b. change in living arrangements	18	25.35	17	27.42
c. change in food habit	28	39.44	19	30.65
d. family and relationship problems	3	4.23	2	3.23
e. major emotional shock following a stressful or traumatic event	4	5.63	2	3.23
f. death or loss of a loved one.	4	5.63	2	3.23
III. Physical health problems				
i. hormonal problems (e.g. overactive thyroid)	2	2.82	4	6.45
ii. diabetes	0	0	0	0
iii. asthma	1	1.41	1	1.61
iv. heart disease	0	0	0	0
v. Others-	5	7.04	8	12.9
IV. Substance use - alcohol, cannabis, amphetamines or sedatives	0	0	0	0
V. Personality factors				
a. perfectionism,	6	8.45	9	14.52
b. easily flustered (become nervous or confused),	16	22.54	24	38.71
c. lack self-esteem or	12	16.90	7	11.29
d. want to control everything	14	19.72	8	12.9

Table 4 shows the attributable psychosocial factors for depression, anxiety and stress among male and female participants

DISCUSSION

Distress has been found to be associated with anxiety and depression, interpersonal conflict, sleep problems, lower academic and clinical performance. It decreases attention, concentration, hamper decision-making, and affect the students' abilities to establish good relationships with peers and patients.

The present study showed that students experience negative emotional state like depression, anxiety and stress. The mean scores of depression and stress were higher among females. Males had a higher mean value of anxiety than female students. This implies that negative emotional states are present in both male and female students in different proportion though not statistically significant. All the mean values for sleep parameters were higher among the male students than female students which were statistically significant.

The attributable factors for stress among male students were greater academic demands (49.3%), exposure to new people, ideas and time (28%), being in one's own environment with new responsibilities (26%), being away from home (26%). Females quoted being in one's own environment with new responsibilities (38%), being away from home (37%), and greater academic demands (33%). This difference in perceiving academic demands as stress among males and females substantiate the fact that women are better at handling academic stress than male students and hence are academically better off than males.

The reasons quoted for depression by males are facing new and difficult college work (45%), missing family or friends, feeling alone or isolated, experiencing conflict in relationships (26%), living away from family for the first time (21%). Females attributed depression to factors like facing new and difficult college work (50%), missing family or friends, feeling alone or isolated, experiencing conflict in relationships (32%), and living away from family for the first time (32%).

The reasons for anxiety in males were change in food habit(39%) , change in living arrangements (25%), personality factors like easily flustered (22%), want to control everything(19%), lack of self-esteem (16%), perfectionism (8%).The reasons for anxiety in females were change in food habit(38%), change in living arrangements (26%), personality factors like easily flustered (30%), want to control everything(12%), lack of self-esteem (11%), perfectionism (14%).

Mean sleep parameters score were higher among males than females but significant difference noted only with distress score. This indicates that sleep pattern is less affected among females as they are able manage the stress.

A study found that the female group reported a significantly higher rate of concern regarding the expression of symptoms and catastrophic cognitions as they related towards anxiety compared to the male group [10,11]. Men are more prone to the negative impact of comorbid insomnia symptom and obstructive sleep apnoea on their level of fatigue and quality of life than women. ¹² In contrast few studies showed that women are at least twice as likely as men to suffer from depression and anxiety disorders, including unipolar depression, dysthymia, panic disorder, post-traumatic stress disorder, generalized anxiety disorder, social anxiety disorder, and phobias [13,14].

Medical UG training is extensive and emotionally exhausting. The period of undergraduate education is a sensitive period in an individual's life span, and this period is regarded by many as important for developing systems and intervention methods that may prevent or reduce mental problems [15]. This study shows that there is gender based difference in psychosocial perspective though not statistically significant for all the parameters. Early medical interventions to reduce the levels of negative emotional states can help students to overcome these problems and help them progress well in the academics.

CONCLUSION

The results obtained in the current study support the notion that there is difference in psychosocial aspects among the two groups though not statistically significant for stress, anxiety and depression ($p > 0.05$). However sleep parameters were more affected in male than the female population. Better understanding of gender difference in psychosocial parameter and early intervention will point the way to preventing clinical manifestation & better treatment. These highlight the need for further research on gender based inequalities in health. Advancement towards this goal is limited by the symptom based diagnostic system. However in the near future neurobiology is expected to play an interesting role in validating these questionnaire based methods for categorising psychosocial disorder.

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