

STRESS AND COPING STRATEGIES AMONG MEDICAL STUDENTS IN BASRAH

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ABSTRACT

This is a cross-sectional study carried out to study stress and the coping strategies among medical students of the University of Basrah for the year 2005. The study involved 300 students (50 students from each class) selected randomly. Special question form was designed for the purpose of the study; it included sociodemographic criteria, like age, sex, residence and class, academic factors, delay years and coping strategies. The study found that 44.6% of the medical students perceived stress, and the highest prevalence was among the first year followed by the third then the fifth year medical students, with significantly higher rates among females than males, among those originally from other governorates and among those having delay years. The major reported cause of stress was academic factors and the current political and security reasons. The response or coping strategies vary between individuals. The study recommended that consideration should be given to program developers and health decision makers to focus on significant actions to reduce the academic stress perceived by medical students. Psychological consultations have to be in each medical school trying to help the students to face their individual stressors in a healthy way and to increase the emotional and financial support for the students specially those from other governorates.

INTRODUCTION

Stress is an unpleasant state of emotional and physiological arousal that people experience in situations that they perceive as danger or threatening to their well-being. The word stress means different things to different people. Some people define stress as events or situations that cause them to feel tension, pressure, or negative emotions such as anxiety and anger. Others view stress as the response to these situations^[1]. If not managed appropriately, stress can lead to serious problems. Exposure to chronic stress can contribute to both physical illnesses, such as heart disease, and mental illnesses, such as anxiety disorders^[1]. It is usually observed that medical students undergo tremendous stress during various stages of the MBChB course. There is a high rate of suicide among them. Academic factors were greater perceived cause of stress in medical students^[2]. Medical courses are inherently stressful because of the nature of the course, the workload and, for some students, financial issues. These stressors can lead to impaired judgment, reduced concentration and self-esteem and increased anxiety, manifested in turn in depression and even suicide^[2]. Students are faced with demanding academic standards, deadlines, career aspirations, and the need to compete for residency positions^[3]. The sources of stressors in medical students can be grouped into 3 general categories: *Academic stressors* include the condensed curriculum,

examinations, peer competition, interactions with senior staff on ward rounds, and fear of incompetence. *Social and personal stressors* are caused by lack of free time for recreation, family, and intimate friends. *Financial stressors* derive from the need for continued financial dependence on family^[3]. A person who is stressed typically has anxious thoughts and difficulty concentrating or remembering. Stress can also change outward behaviors. Teeth clenching, hand wringing, pacing, nail biting, and heavy breathing are common signs of stress. People also feel physically different when they are stressed^[1]. *Coping* with stress means using thoughts and actions to deal with stressful situations and lower our stress levels. Many people have a characteristic way of coping with stress based on their personality. People who cope well with stress tend to believe they can personally influence what happens to them. They usually make more positive statements about themselves, resist frustration, remain optimistic, and persevere even under extremely adverse circumstances. Most importantly, they choose the appropriate strategies to cope with the stressors they confront. Conversely, people who cope poorly with stress tend to have somewhat opposite personality characteristics, such as lower self-esteem and a pessimistic outlook on life.

A study was carried out in Kuwait in 2005 to study stressors in medical students; it showed

67% of medical students had stress, with a significantly higher rate among females, also it found that males and females differ in response to various stressor in terms of coping strategies they employ^[3]. Another study was carried out to study stressors in medical students in Seth GS medical college India; it showed that stress in medical students is common and it is process oriented^[2].

The main *objective* of the study is to estimate the prevalence of stress among medical students in Basrah Medical College, to study the causes of stress and coping strategies employed by the students.

METHODOLOGY

This is a cross-sectional survey carried out on medical college students/University of Basrah 2005. A sample of 50 students selected from each class randomly (a total of 300 students), 29 students did not respond, giving a response rate of 90.3%. A standard questionnaire was designed for the purpose of the study; it was self-administered, completed and returned by the involved students. It contained information about; age, sex, residency and number of delay years. Twelve stressors that usually face the

medical students were involved Three scores were given to each question [range between (0-36)]^[3]. The median was 18; individuals were classified into:

Stressed if they collect >18 scores.

Not stressed when they collect ≤ 18 scores.

Coping strategies was assessed by answering 7 questions.

For data analysis, SPSS (Statistical Package of Social Science) version 11 was used, and chi-squared test was used as a test of significance.

RESULTS

The study involved 300 medical students, only 271 respond to the study with a response rate of 90.3%. Mean age was 21.4 ± 1.6 years, with 54.6% were females and 45.4% were males.

The distribution of the studied students according to the prevalence of stress and class was shown in (Table-1). Out of 271 studied students 121 perceived stress giving an overall prevalence of 44.6%, with the highest prevalence rate was among the first year (62.8%), followed by the 3rd year (55.6%) and 5th year students (47.7%). The 6th year students showed the least prevalence (27.3%).

Table 1. Distribution of students according to prevalence of stress and class.

	Stress				Total
	Positive		Negative		
Class	No.	%	No.	%	
First	27	62.8	16	37.2	43
Second	16	33.3	32	66.7	48
Third	25	55.6	20	45.4	45
Fourth	21	44.7	26	55.3	47
Fifth	21	47.7	23	52.3	44
Sixth	12	27.3	32	72.7	44
Total	121	44.6	150	55.4	271

The distribution of the studied students according to prevalence of stress and gender was shown in (Table-2); it shows that the

prevalence of stress was higher among females than males (52.5% vs. 33.6%) and the difference was statistically significant ($P < 0.01$).

Table 2. Distribution of students according to prevalence of stress and gender.

Gender	Stress					
	Positive		Negative		Total	
	No.	%	No.	%	No.	%
Male	38	33.6	75	66.4	113	100
Female	83	52.5	75	47.5	158	100
Total	121	44.6	150	55.4	271	100

$X^2 = 9.5, df = 1, P < 0.01$

The distribution of students according to prevalence of stress and residency was shown in (Table-3), it shows that the prevalence of stress was higher among students from other

governorates than those from Basrah (38.4% vs. 61.6%) and the difference was statistically significant ($P < 0.01$).

Table 3. Distribution of students according to prevalence of stress and residency.

Residency	Stress					
	Positive		Negative		Total	
	No.	%	No.	%	No.	%
Basrah	76	38.4	122	61.6	198	100
Other	45	61.6	28	38.4	73	100
Total	121	44.6	150	55.4	271	100

$X^2 = 11.8$

$df = 1$

$P < 0.01$

The distribution of students according to delay years and stress was shown in (Table-4), it shows that the prevalence of stress was higher among students who had delay years than those

who had no delay years (66.0 vs. 39.8%) and the difference was statistically significant ($P < 0.01$).

Table 4. Distribution of students according to prevalence of stress and delay years.

Delay years	Stress					
	Positive		Negative		Total	
	No.	%	No.	%	No.	%
Positive	33	66.0	17	34.0	50	100
Negative	88	39.8	133	60.2	221	100
Total	121	44.6	150	55.4	271	100

$df = 1, P < 0.01$

Regarding the causes of stress; the majority of stressed students admitted problems caused by the current political and security situation (89.0%), difficulties in examination (79.3%), lack of time to revise and prepare (74.2%), difficulties in understanding lectures (57.0%), concentration difficulties (48.8%), and economic problems (46.3%). (Table-5).

Table 5. Causes of Stress.

Causes	Stress	
	No.	%*
Difficulties in understanding lectures being delivered	69	57.0
Concentration difficulties	59	48.8
Examination difficulties	96	79.3
Problems with teaching staff	27	22.3
Lack of time to revise and prepare	89	74.2
Social connection	32	26.4
Economic problems	56	46.3
Familial problems	26	21.5
Health problems	31	25.6
Aspects of everyday life	51	42.1
Personal emotional problems	39	32.2
Problems caused by the current political and security situation	96	89.0

*% was calculated out of 121 stressors.

** More than one cause may be combined.

The response or coping to stress varies between different individuals. The distribution of stressed students according to coping strategies was shown in (Table-6). The majority (66.1%) reported repeated absence from lectures, 60.3%

tend to cry, 52.9% reported sleeping for longer periods, 47.9% tend to be isolated from family and friends, or 2.84% tend to smoke and 12.4% use tranquilizer.

Table 6. Coping strategies.

Coping strategies	Stress	
	No.	%
Being isolated from family and friends	58	47.9
Sleeping for longer periods	64	52.91
Using tranquilizers	15	12.4
Crying	73	60.3
Driving too fast	15	12.4
Smoking	30	24.8
Repeated absence from lectures	80	66.1

DISCUSSION

Stress among medical students is common and is a process oriented. The present curriculum of MBChB course is vast. As a large syllabus is fitted in a short period. The course is extremely demanding in terms of student effects^[2]. This study showed that 44.5% of the medical students perceived stress, which is comparable to other studies^[2,3]. Stress was higher among the first medical students which is comparable to other studies which explain that it could be due to entry into a large professional college makes students feel insecure in the initial period^[4,5]. Fifth year medical students were the next to perceive stress, which is attributed to the excessive load of both paraclinical and clinical subjects as compared to only clinical subjects in the sixth year medical students^[2]. The study showed significant gender difference where females perceive higher stress than males which is comparable to other studies which stated that females medical students were more worried about personal issues related to their future, family expectations and emotional problems^[6]. Gender difference could also be attributed to multiplicity of demands, the relative lack of women role models in academic medical centers and more difficulty in resolving issues of intimacy and career have been reported as contributing factors^[3,5]. The study showed that students from other governorates perceived stress more than those from Basrah governorate who were living with their families. This result is comparable to other studies which stated that it is mainly due to residential problems and lack of financial support^[7] in addition to the frequent power outage, inadequate water supply and separation from the family. Academic factors were greater perceived causes of stress in medical students in this study which is comparable to other studies which stated that large amount of information and frequent examinations were recognized as most important factors causing stress^[3,4].

The distribution of the coping strategies of medical students to stress may be found different from those found in other studies. This can be which is attributed to difference in the cultural and religious factors which determine the behavior of the individuals and some behavior regarded socially unacceptable i.e. smoking among females and drinking alcohol in both sexes, which is comparable to other studies which stated that religious orientation affects the better way of using coping styles^[8,9]. After the discussion of the results of the study, it is recommended that consideration should be given to program developers and health decision makers to focus on significant actions to reduce the academic stress perceived by medical students. Psychological consultations have to be in each medical school trying to help the students to face their individual stressors in a healthy way, and to increase the emotional and financial support for the students specially those from other governorates.

REFERENCES

1. Hilgard. What is stress? Oxford Textbook of Psychology 1985: 135
2. Supe AN. A study of stress in medical students at Seth G.S. Medical College. Indian J Clin. Psychol 1998; 44(1): 1-6
3. Badr H, Hamoda H. Stressors and coping strategies of medical students. Gender differences. Saudi Med J. 2005; 26(5): 890-892
4. Coburn DR, Jovaisus AV. Perceived sources of stress among first year medical students J Med. Education. 1975; 50: 589-595
5. Petelini M, Tiberio I, Saadeh A, et al. Anxiety and depression in the first year of medical residing training. Med Education 2002; 36: 66-72
6. Hojat M, Glaser K, Xu G et al. Gender comparison of medical students psychological profiles. Med Education 1999; 33:342-349
7. Indragan A, Rao S, Grover V et al. Freshers perception of problems in medical education. Indian J Med Education 1985; 24:85-94
8. Palmer JB, Sebby R A. Intrinsic - extrinsic religious orientation and individual coping style. Psychol Rep 2003; 93: 395-398
9. Kumarsway N, Ebigbo PO. Stress among 2nd year medical students: A comparative study. Indian J.Clin. Psychol. 1989; 16: 21-23.