

## Occupational stress among faculty of Wah Medical College a comparative study

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**Objectives:** To determine level of stress among faculty of Wah Medical College, compare levels of stress among clinical and basic sciences faculty and to assess gender difference in the level of stress among the faculty.

**Methodology:** A cross-sectional survey was conducted on basic and clinical sciences faculty of Wah Medical College, Pakistan. A convenient sample of 115 faculty members was included in the study. A questionnaire was given to all of them but 83 members filled those by themselves. Analysis was done by using SPSS version 19.

**Results:** Out of total 83 faculty members, basic sciences teachers were 43 while 40 were from clinical sciences and majority (65.1%) of them

were females. The mean stress score was 2.46, which falls in the moderate range of stress level. Clinical and basic sciences faculty showed no significant difference in their stress scores ( $p=0.640$ ) but significant difference was observed between stress scores of male and female faculty; female faculty was more stressed.

**Conclusion:** Medical faculty of Wah Medical College was under stress, especially the female faculty and it is an alarming situation which need immediate solution otherwise it may affect standard of medical education. (Rawal Med J 201;41:234-237).

**Key words:** Occupational stress, faculty, gender, teaching.

### INTRODUCTION

Occupational stress is a major health associated subject and a key concern for all organizations. It is defined as "any harmful physical or mental response, occurring due to individual's incompatibility with his/her ability," which might lead to aggressive behaviors, occupational injuries, physical diseases and even death.<sup>1</sup> Occupational stress may occur as a result of number of factors. It may be related to workplace as well as certain employee factors like mental health of employees.<sup>2,3</sup> Other factors include lack of appreciation, achievement, praise, incentives and promotion. Furthermore, inappropriate leadership, poor communication, non supportive behavior of colleagues and inapt administration also results in the development of stress among employees. Both the employee and the organization face lots of negative consequences as a result of stress. The employees experience various gastrointestinal disorders,<sup>4</sup> cardiovascular diseases,<sup>5</sup> mental health problems like anxiety depression.<sup>6-9</sup> The organization also faces various problems like

absenteeism, productivity loss and payment of extra cost to these employees.<sup>7,10</sup>

Teaching has very important place among all occupations as education is considered to be a vital mean for development and prosperity of any state.<sup>11</sup> Medical college teachers face a number of challenges, especially related to curriculum and with performance of students in the university examinations. Medical teachers are also indulged in moral training of the students and they teach them how to deal with patients. So, they have double responsibilities i.e., not only to teach academic knowledge to the students, but also to enlighten them with moral values. A study identified sources of teacher stress, which included students, curriculum, nonteaching duties, workload, and lack of recognition.<sup>12</sup> The objectives of the study were to determine level of stress among faculty of Wah Medical College, compare levels of stress among clinical and basic sciences faculty of the college and also to assess gender difference in the level of stress among medical faculty.

## METHODOLOGY

It was a Cross sectional survey conducted on faculty members of Wah Medical College, Wah Cantt, Pakistan. A convenient sample of 115 faculty members working in the college were recruited for the study and the questionnaires were given to all of them. A total of 83 members filled those by themselves. The study was carried out from January 2014 to June 2014. The questionnaire comprised of two parts; first part included demographic data like age, gender, marital status, length of experience, salary range, job rank and second part was based on a standard questionnaire named as "*Fimian's Teacher Stress Inventory (TSI)*" which is especially designed for the evaluation of stress among teachers. Reliability of TSI was above 0.70 for all TSI dimensions determined by the calculation of Cronbach's alpha coefficient.<sup>13</sup>

The TSI consists of 49 five-point Likert scale items that cover ten dimensions, the first five including Time management, Work-related stressors, Professional distress, Discipline and motivation, Professional investment are sources of stress while the rest includes implications of stress that is Emotional, Fatigue, Cardiovascular, Gastronomical and Behavioral manifestations. The respondents recorded their response on a five point rating scale ranging from never to always. The mean score of all dimensions was computed after calculating mean of each dimension. A mean stress score of less than 2.25 was labeled as mild, score ranging from 2.26 to 2.87 was taken as moderate whereas a score above 2.87 was considered as high stress level. These score were determined on the basis of percentile ranks<sup>13,14</sup>

The consent and confidentiality was maintained while collection of the data.

The data were analyzed using SPSS version 19.0. Independent T-test was applied to determine difference in stress level among clinical and basic sciences faculty while Chi-square square test was used to explore gender difference in the stress level among medical faculty considering p-value < 0.05 as significant.

## RESULTS

Out of 115, 83 faculty members responded to the questionnaire with a response rate of 72.1%. Out of

them, 40 (48%) were from clinical sciences and 43 (52%) from basic sciences. Female and male faculty was 54(65%) and 29 (34.9%), respectively.

**Table 1. Descriptive statistics of categorical variables.**

Variable	Categories	Number	Percent
Age	25-35	37	44.5%
	36-45	25	30.1%
	>45	21	25.3%
Marital status	Married	66	79.5%
	Unmarried	17	20.4%
Educational status	Bachelor	27	32.5%
	Master	3	3.6%
	Post graduate	53	63.8%
Income	< 50,000	45	54.2%
	50,000-70,000	9	10.8%
	70000-100000	15	18%
	> 100000	14	16.8%
Working experience	< 5 years	32	38.5%
	5-10 years	36	43.3%
	10-15 years	6	7.2%
	15-20 years	2	2.4%
	> 20 years	7	8.4%
Post in the institute	Lecturer	34	40.9%
	Assistant Professor	19	22.8%
	Associate Professor	7	8.4%
	Professor	6	7.2%
	Medical Officer	13	15.6%
	Senior Registrar	4	4.8%

**Table 2. Mean stress scores according to TSI.**

Variables	Mean±SD
Time management	2.6900±.60796
Work related stressor	2.9864±.77300
Professional distress	2.9690±.79024
Discipline and motivation	2.7171±.74788
Professional investment	2.6206±.71794
Emotional manifestation	2.5006±.81878
Fatigue manifestation	2.4623±.84988
Cardiovascular manifestation	2.2601±2.37528
Gastronomical manifestation	2.3621±.76233
Behavioral manifestation	1.5174±.61807

The mean stress score of medical faculty was 2.46. (Table 2). Independent t-test was applied to determine stress level difference among clinical and

basic sciences faculty, which showed insignificant difference. (Table 3)

**Table 3. Stress score of clinical and basic sciences faculty.**

Category of teaching	Number	Mean score±SD
Basic sciences	43	2.4419±0.66611
Clinical sciences	40	2.5043±0.53088

p=0.640

**Table 4. Age of faculty and stress level.**

Gender	Level of stress			Total
	Less than 2.25 (mild stress)	2.26-2.87 (moderate stress)	More than 2.87 (major stress)	
Male	14	4	11	29
Female	16	27	11	54
	30	31	22	83

p=0.005

Chi-square test was applied to determine stress level difference among male and female faculty members, which showed that female faculty had higher stress as compared to male faculty with a p-value of 0.005 (Table 4).

## DISCUSSION

Occupational stress among medical teachers is considered to be a very important issue that must be controlled and managed like any disease because psychological stress affects their physical, mental, personal and social life. The study observed that the overall stress level was moderate among the faculty. This is supported by other studies.<sup>15-17</sup> that were conducted in arts, secondary school teachers and professional colleges. Our findings are inconsistent with the studies like, Khan et al<sup>18</sup> which demonstrated mild stress among college lecturers and Chaudhry, which showed that most of the university teachers considered stress as no more problem.<sup>19</sup> The stress among teachers might be because of performing multiple roles like duties as an instructor, researcher, supervisor, manager and even some of them also have to carry out extra roles including administrative and student dealing responsibilities.

The study showed insignificant difference in stress levels among clinical and basic sciences faculty. This difference might not be detected because of

small sample size or both the groups faced equivalent stress irrespective of the task they perform. Female faculty was found to be more depressed, like the results of Kumar et al,<sup>20</sup> Bauer et al<sup>21</sup> and Antoniou et al.<sup>22</sup> We all know that females have additional responsibilities related to their family and house-hold commitments. Moreover, females are usually considered to be more emotional and devoting to their work as compared to males. The combined effects of all these may be responsible for higher stress levels of female faculty but the result was not compatible with that of Chaudhry<sup>19</sup> and Bada et al,<sup>23</sup> which showed no significant difference in stress level between male and female faculty.

Stress affects the efficiency of teachers so there is a need to provide proper conducive environment and support at their workplace and this is a prime responsibility of administration. Furthermore, to cope with stressful situation, an integrated approach can be employed including protection, promotion and early diagnosis of mental health problems among them.<sup>24</sup> It is also recommended that regular assessment of stress level should be conducted for implementation of preventive measures and the administrative authorities should investigate the causes of stress and evaluate the organizational culture to control this dilemma.

## CONCLUSION

The medical faculty of Wah Medical College was under stress, especially the female faculty and it is an alarming situation, which need immediate solution otherwise it will affect standard of medical education. There should be a good interaction between faculty and higher authorities so that faculty can verbalize their needs and problems. The administrative authority should provide support both socially and economically in the form of raise pay and timely promotions. Moreover the teachers should have workshops, refresher courses and training to cope with the factors that can cause stress.

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