

Gender Differences in Stress at Work Place among Doctors and Nurses

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Abstract :

Introduction : Work stress is increasingly recognized as one of the most serious occupational health hazards reducing workers' satisfaction and productivity, and increasing absenteeism and turnover. Some studies found that females suffer more from work stress than males, while some could not find any differences. Doctors and nurses suffer from work stress differently as they are involved in professions with more human interactions. **Material and Methods :** It is a cross sectional observational study involving 200 doctors and 200 nurses with equal number of gender distribution. Demographic characteristics were collected through semi structured proforma and level of workplace stress was assessed by the Workplace Stress Scale. **Results :** In this study, overall 66.2% subjects reported workplace as stressful (mean-19.01) on workplace stress scale. As compared to males (60.5 %), females reported workplace more stressful (72.5%, $p < 0.05$). Workplace stress is significantly higher among female nursing staff (76%, mean-21.3) and female doctors (69%, mean-19.4) as compared to male nursing staff (61%, mean- 18.1) and male doctors (60%, mean 17.2), respectively. **Conclusion :** Females find workplace significantly more stressful than males. There is a need of giving importance to improve work environment of doctors and nurses, specifically female staff, which in turn can help patients and community at large.

Key Words: Doctors, Gender differences, Nurses, Work stress.

Introduction:

The term 'stress' was coined by Hans Selye in 1936.

⁽¹⁾Workplace stress is the harmful physical and emotional response that occurs when there is a poor match between job demands and the capabilities, resources, or needs of the worker.⁽²⁾ Job stress is also associated with various biological reactions that may lead ultimately to compromised health, such as cardiovascular disease and psycho-somatic disorders.⁽¹⁾ Job stress results from the interaction of the worker and the conditions of work. Differences in individual characteristics such as personality, gender, economic class, social background and coping skills are very important in predicting whether certain job conditions will result in stress. Work stress is increasingly recognized as one of the most serious occupational health hazards, reducing workers satisfaction and productivity, and increasing absenteeism and turnover.⁽³⁾ Workplace stress is a major problem, and it

has been suggested that gender may be an important demographic characteristic to consider in the experience of stress. While on one hand it has been reported that there are no differences between women and men in relation to workplace stress⁽⁴⁾, it has also been noted that there are differences in both stressors and the severity of stress between genders.^(5,6,7,8) Women suffer from more workplace stress than men, because of some unique stressors faced by women including discrimination, stereotyping, marriage/work interface, and social.^(6,7,9) Male doctors are more stressed than the female doctors in cases of inter-role distance and role inadequacy.⁽¹⁰⁾ Role ambiguity and role conflict were also correlated with work stress among 50 emergency doctors working in nine hospitals of the northern areas of Jordan.⁽¹¹⁾ For doctors poor working environment, lack of facilities, staffs, recourses and equipments are major workplace hurdles.⁽¹²⁾ Nurses are subject to more general stress which arises from the physical, psychological, and social aspects of the work environment. High levels of stress result in staff burnout and turnover and adversely affect patient care.⁽¹³⁾

Material & Methods :

It is a cross sectional observational study conducted at a

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medical college affiliated to a general hospital. Permission of the Superintendent of the hospital was taken. Total 400 subjects were surveyed for this study. In this study, we have included doctors (M.D. or M.S.) - 100 females and 100 males and nursing staff - 100 females and 100 males as subjects randomly after taking informed consent. Subjects were interviewed in groups and asked to fill self-rated questionnaires during the interview. All data were collected over a period of four months and data entry and analyses were done in one month. The demographic details were collected through a specially designed semi-structured proforma. Level of workplace stress was assessed by the workplace stress scale.

The Workplace Stress Scale

The Marlin Company and the American Institute of Stress had created a quick test for people to measure their job stress levels and compare themselves with the

rest of the American work force in 2001. The scale was further validated and standardized by The Marlin Company, North Haven, CT, and the American Institute of Stress, Yonkers, NY. The scale includes eight statements thinking about current job, each of the statement describes how the subject feels. Each item of the scale rated on 5 point scale (never very often). Total score is 40 and cut off score is 15. All those who had scored more than 15 considered workplace as stressful. Workplace stress is further divided according to the scores as low stress (16-20), moderate stress (21-25), severe stress (26-30) and profound stress (31-40).⁽¹⁴⁾

Results :

Table 1 shows age and years of experience distribution is almost similar in both the gender and both job cadres. Overall 42% having work experience <10 years, 41% having 10-25 years and only 16% having >25 years.

Table 1: Demographic characteristics of the subjects

Demo-graphic Variable	Number of Subjects	Nursing staffs		Doctors		Total
		Male	Female	Male	Female	
		100	100	100	100	
Age	<35 Yrs	43	40	43	39	165
	35-50	44	40	41	44	169
	>50	13	20	16	17	66
Marital Status	Married or living with partner	89	80	86	85	340
	Single	11	20	14	15	60
Years of experience	<10	40	40	44	46	170
	10-25	45	39	40	39	163
	>25	15	21	16	15	67
Family	Nuclear	42	37	37	56	172
	Joint	58	63	63	44	228

Table 2 shows that there is significantly higher mean score of the workplace stress scale in females (20.3) as compared to males (17.7; P<0.001). Among job cadres, mean score of the workplace stress scale is statistically significantly higher in nursing staff (19.71) as compared with doctors (18.3; P<0.05). Total 72.5% females scored low to profound stress in the workplace stress scale, while only 60.5% males scored

same.(P<0.05). Item no. B, C, D, E, G, H of the workplace stress scale were scored significantly higher by females as compared to males (P<0.05). Among job cadres, nursing staff scored item no. B, C, D, and G of the workplace stress scale higher than doctors (P<0.05).

Table 2: The workplace scale results for nurses v/s doctors and males v/s females

Scale items	Score	Nursing (N-200)	Doctors (N-200)	Comparison Results	Male (N-200)	Female (N-200)	Comparison Results
A. Conditions at work are unpleasant or sometimes even unsafe	1	7	8	$\chi^2=3.004$ df=4 P=0.5572	8	7	$\chi^2=6.936$ df=4 P=0.1393
	2	14	17		19	12	
	3	41	48		50	39	
	4	74	78		77	75	
	5	64	49		46	67	
B. I feel that my job is negatively affecting my physical/ emotional well being.	1	68	92	$\chi^2=12.54$ df=4 P=0.01376*	96	64	$\chi^2=24.34$ df=4 P=0.00006828*
	2	70	68		70	68	
	3	31	25		25	31	
	4	19	13		7	25	
	5	12	2		2	12	
C. I have too much work to do and/or too many unreasonable deadlines	1	31	37	$\chi^2=15.23$ df=4 P=0.004245*	36	32	$\chi^2=27.81$ df=4 P=0.00001361*
	2	76	96		100	72	
	3	52	51		52	51	
	4	23	12		11	24	
	5	18	4		1	21	
D. I find it difficult to express my opinions or feelings about my job conditions to my superiors.	1	57	61	$\chi^2=9.915$ df=4 P=0.04188*	60	58	$\chi^2=19.76$ df=4 P=0.0005576*
	2	67	69		75	61	
	3	35	48		49	34	
	4	20	15		10	25	
	5	21	7		6	22	
E. I feel that job pressures interfere with my family or personal life	1	82	94	$\chi^2=6.099$ df=4 P=0.191895	105	71	$\chi^2=12.78$ df=4 P=0.01240*
	2	50	54		46	58	
	3	50	31		32	49	
	4	15	19		14	20	
	5	3	2		3	2	
F. I have adequate control or input over my work duties.	1	95	86	$\chi^2=3.013$ df=4 P=0.5556	92	89	$\chi^2=4.505$ df=4 P=0/3420
	2	40	48		46	42	
	3	23	29		30	22	
	4	23	24		20	27	
	5	19	13		12	20	
G. I receive appropriate recognition or rewards for good performance.	1	65	62	$\chi^2=13.89$ df=4 P=0.007652*	66	61	$\chi^2=15.62$ df=4 P=0.003569*
	2	45	70		71	44	
	3	49	49		44	54	
	4	27	14		13	28	
	5	14	5		6	13	
H. I am able to utilize my skills and talents to the fullest extent at work	1	80	69	$\chi^2=1.873$ df=4 P=0.7592	83	66	$\chi^2=14.09$ df=4 P=0.007022*
	2	56	65		68	53	
	3	43	46		37	52	
	4	12	13		6	19	
	5	9	7		6	10	
Stress level 1. No stress (</=15) 2. Low (16-20) 3. Moderate (21-25) 4. Sever (26-30) 5. Profound (30-40)		63	71	$\chi^2=9.364$ df=4 P=0.05261	79	55	$\chi^2=21.44$ df=4 P=0.0002589*
		50	67		66	51	
		47	41		39	49	
		27	15		12	30	
		13	6		4	15	
Mean Score/Sd		19.71 /6.31	18.30 /5.47	P=0.0174*, T=2.3878 Df=398, SED=0.590	17.66 /5.34	20.35 /6.21	P<0.0001*, T=4.6449 Df=398, SED=0.579

Table 3: Result of the workplace stress scale for gender difference among doctors & nursing staffs

Scale items	Score	Nursing		Comparison Results	Doctors		Comparison Results
		Male (N-100)	Female (N-100)		Male (N-100)	Female (N-100)	
A. Conditions at work are unpleasant or sometimes even unsafe	1	5	2	$\chi^2=12.05$ df=4 P=0.01699	3	5	$\chi^2=1.614$ df=4 P=0.8063
	2	11	3		8	9	
	3	25	16		25	23	
	4	35	39		42	36	
	5	24	40		22	27	
B. I feel that my job is negatively affecting my physical/ emotional well being.	1	40	28	$\chi^2=12.26$ df=4 P=0.01551*	56	36	$\chi^2=13.81$ df=4 P=0.007913*
	2	38	32		32	36	
	3	15	16		10	15	
	4	5	14		2	11	
	5	2	10		nil	2	
C. I have too much work to do and/or too many unreasonable deadlines	1	19	12	$\chi^2=19.47$ df=4 P=0.0006356*	17	20	$\chi^2=11.64$ df=4 P=0.02026*
	2	45	31		55	41	
	3	26	26		26	25	
	4	9	14		2	10	
	5	1	17		nil	4	
D. I find it difficult to express my opinions or feelings about my job conditions to my superiors.	1	32	25	$\chi^2=17.55$ df=4 P=0.001508*	28	33	$\chi^2=6.834$ df=4 P=0.1449
	2	40	27		35	34	
	3	19	16		30	18	
	4	6	14		4	11	
	5	3	18		3	4	
E. I feel that job pressures interfere with my family or personal life	1	45	37	$\chi^2=4.14$ df=4 P=0.3873	60	34	$\chi^2=14.21$ df=4 P=0.006664*
	2	26	24		20	34	
	3	19	31		13	18	
	4	8	7		6	13	
	5	2	1		1	1	
F. I have adequate control or input over my work duties.	1	48	47	$\chi^2=7.535$ df=4 P=0.1102	44	42	$\chi^2=1.549$ df=4 P=0.8179
	2	24	16		22	26	
	3	14	9		16	13	
	4	7	16		13	11	
	5	7	12		5	8	
G. I receive appropriate recognition or rewards for good performance.	1	33	32	$\chi^2=7.729$ df=4 P=0.1020	33	29	$\chi^2=14.81$ df=4 P=0.005105*
	2	26	19		45	25	
	3	28	21		16	33	
	4	8	19		5	9	
	5	5	9		1	4	
H. I am able to utilize my skills and talents to the fullest extent at work	1	39	41	$\chi^2=3.25$ df=4 P=0.516839	44	25	$\chi^2=22.16$ df=4 P=0.0001860*
	2	30	26		38	27	
	3	24	19		13	33	
	4	4	8		2	11	
	5	3	6		3	4	
Stress level	1. No stress (</=15)	39	24	$\chi^2=12.3$ df=4 P=0.01526*	40	31	$\chi^2=11.36$ df=4 P=0.02282*
	2. Low (16-20)	29	21		37	30	
	3. Moderate (21-25)	20	27		19	22	
	4. Sever (26-30)	8	19		4	11	
	5. Profound (30-40)	4	9		nil	6	
Mean Score/Sd		18.12 /6.9	21.31 /6.1	P=0.0007*, T=3.4637 Df=198, SED=0.921	17.21 /4.44	19.40 /6.17	P=0.0044*, T=2.8810 Df=198, SED=0.760

Table 3 shows that there is significantly higher mean score of the workplace stress scale in female nurses (21.3) as compared to male nursing staff (18.1; $P < 0.05$). Same in doctors also, female doctors scored higher (19.4) than male doctors (17.2; $P < 0.05$). Item no. B, C and D of the workplace stress scale was scored significantly higher by female nursing staff as compared to male nursing staff ($P < 0.05$). Among doctors, female doctors scored item no. B, C, E, G, and F of the workplace stress scale higher than male doctors ($P < 0.05$). 76% female nursing staff scored low to profound stress in the workplace stress scale, while only 61% male nursing staff scored same. ($P < 0.05$). 69% female doctors scored low to profound stress in the workplace stress scale, that is significantly higher than male doctors (60%; $P < 0.05$). Overall, 66.2% scored low to profound stress in the workplace stress scale and overall mean score of the workplace stress scale is 19.01.

Discussion :

Sample size of the study is adequate and comparable with other studies of this type. Overall there is 66.2% reported workplace stress, that is similar with the results of other studies.^(2,14,15) In our study, total mean score of The Workplace Stress Scale is 19.0, which is closer to reported mean of the Work Place Stress Scale score 18.4 in a study by the Marlin company.⁽¹⁴⁾

There is significantly higher mean score of the workplace stress scale in females (20.3) as compared to males (17.7; $P < 0.001$). This finding is not similar with above mentioned study.⁽¹⁴⁾ They found mean score of workplace stress scale 18.6 and 18.1 in males and females, respectively and no significant difference between genders. This finding may be due to different gender roles in Eastern and Western cultures. In East, even today working women are major homemakers.

As compared to males (60.5%), females reported workplace more stressful (72.5%, $P < 0.05$). This finding is similar (65% males and 72% females) to as in the study by Khuwaja et al. among male and female doctors in teaching institute.⁽¹⁶⁾ Other different studies on workplace stress concluded that women suffer from more workplace stress than men.^(7,17,18) This may be due to dual role functioning in females along with higher subjective perception of stressors. This finding is contrary to findings of The Bristol Stress and Health at

Work Study in UK⁽¹⁹⁾, which found no significant differences between men and women overall work stress. This might be possible due to difference in cultural and social background, different occupation groups and workplace. Gender role difference is becoming minimal in the Western culture.

This is the first instance of comparison between workplace stress among doctors and nursing staff and we found that 70% nursing staff reported workplace more stressful (mean score - 19.7) as compared to 64.5% doctors (mean score - 18.3). This finding is statistically significant ($P < 0.05$). This difference may be due to the nursing staff having high workloads, restricted authority due to lower cadre than doctors, unsocial hours of work, shift duties, conflict with other nurses, supervisors and medical staff. Workplace stress is significantly higher among female nursing staff (76%, mean-21.3) and female doctors (69%, mean-19.4) as compared to male nursing staff (61%, mean- 18.1) and male doctors (60%, mean 17.2) respectively, ($P < 0.05$ in all above statistics).

Conclusion and Limitations of the Study :

It is clear that workplace stress is present in nursing staff and doctors. Females find workplace significantly more stressful than males. Indian cultural background is still playing role in our set up and there is a need of giving attention to improve female work environment somewhat more than that of the male. Improving working conditions and environment, adequate resources, clarifying roles, constructive resolution of conflicts and stress management training may be beneficial in reducing the workplace stress. The government will be well advised to harness this potential and improve facilities at tertiary care centers.

The cross-sectional design of this study is one limitation which precludes any causal relationship between psychosocial job factors and self-perceived depression, anxiety and stress. Another limitation of this study is that all of the study data were self-reported, which may have introduced bias. However, self-report is often the only feasible strategy to gather information concerning workers' working conditions. Sample from only a single centre was studied. We could not conduct study on a representative sample of all different working groups because it was challenging and required lot of funds.

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