

COMPARISON OF ROLE STRESSORS, JOB SATISFACTION AND TURNOVER INTENTIONS OF DENTISTS WORKING IN PUBLIC AND PRIVATE SECTORS

¹SAEEDA ABDULLAH, BDS, MCPS, FCPS

²TAHIR SAEED, MBBS, MBA, PhD

ABSTRACT

The main purpose of present study was to determine the difference in level of role stressors (Role Conflict and Role Overload) and their effect on Turnover Intention or Job Satisfaction of dentists. The study also explored the impact of role stressors with reference to demographic factors of age, sex and experience level.

The current research was consisting of two parts, a pilot study and then main study. In pilot study a sample of 50 respondents were taken to pre-test and establish instruments' psychometric properties in local socio-cultural context.

Main study was carried out on 100 faculty dentists' working in public/private teaching institutes. Dentists with minimum of one year job experience were selected by using Convenience Sampling technique.

This was analytical, cross sectional & correlation study. A specially designed questionnaire used in present study was based on General Health Questionnaire (GHQ), Role Stressors Inventory, Turnover Intentions and Job Satisfaction instruments.

Multiple regression analysis was computed to examine the relationship between role stressors and outcomes. T-test and ANOVA analyses were used to examine the difference on the basis of gender and experience level respectively.

In the present study 40% of the sample were males and 60% females. Females were more stressed than male dentists. More workload and conflict was found among dentists working in public/government dental teaching institutes as compared to private dental teaching institutes but on the other hand turnover intentions were more in dentists who were working in private dental teaching institutes.

The knowledge of how to manage stress at work may be beneficial to better manage job related attitudes and behaviors. Health sector reforms should emphasize management of the stressors by means of better organizational and job design.

Key Words: Role stressors, turnover intentions, conflict, work overload, stress at the workplace.

INTRODUCTION

Stress has been defined in different ways over the years. Originally, it was conceived as pressure from the environment, then as strain within the person. Generally accepted definition today is "one of interaction between the situation and the individual". It is the psychological and physical state that results when the

resources of the individual are not sufficient to cope with the demands and pressures of the situation.¹ It is not just a stimulus or response, but rather, it is a process by which we perceive and cope with environmental threats and challenges.^{2,3}

Stress is always carried out in three phases. The first phase, called an alarm phase, prepares the individual for the action. The second stage, called a resistant phase, is adaptation to stress. However, if the stress is acting on, it leads to tiredness and to the third stage, called a phase of exhaustion.^{1,4}

Various studies in different contexts have found high levels of stress. Stressors have been identified among healthcare professionals relevant to demograph-

¹ Assistant Professor, PIMS, Islamabad. Correspondence: dr_saeeda@hotmail.com

² HOD, Faculty of Management Sciences Preston, University, Islamabad.

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ic characteristics (age, work experience), personality, work-related attitudes, (for instance organizational commitment, general job stressors like high workload, lack of social support, and role conflict or ambiguity), specific job stressors (e.g. much direct patient contact), individual health such as depression and psychosomatic complaints and organizational behavior (such as absenteeism and impaired performance. Recent Studies reported in the dental literature confirm that dentists are subject to a variety of stress-related physical and emotional problems.⁵

Dentists perceive dentistry as being more stressful than other occupations. Different studies showed dentists are always or frequently worried or anxious. Their symptoms often are associated with anxiety and depression. When humans are exposed to challenging environments, they exhibit a broad range of physiological and emotional responses that vary in type and strength, according to how well they can cope with the demands.⁶⁻⁹

Studies have examined stress among dental surgeons with reference to anxious patients, to identify the perceived sources of occupational stress among dental departments, age, sex and length of dental practice experiences as outcomes of job stress, job stress as a predictor of burnout, identifying sources and consequence of stress among dental institutions etc.^{7,10}

Stress is more likely in some situations than others and more in some individuals than in others. It can undermine the achievement of goals, both for individuals and for organisations. Signs of stress can be seen in people's behaviour, especially the change which occurs in the behaviour. Acute responses to stress may be in the areas of feelings (for example, anxiety, depression, irritability, fatigue), behaviour (for example, being withdrawn, aggressive, tearful, unmotivated), thinking (for example, difficulties in concentration and problem solving) or physical symptoms (for example, palpitations, nausea, headaches). Situations that are likely to cause stress are those that are unpredictable or uncontrollable, uncertain, ambiguous or unfamiliar, or involving conflict, loss or performance expectations.

Historically, the typical response from employers to stress at work has been to blame the victim of stress, rather than its cause. Increasingly, it is being recognised that employers have a duty, in many cases in law, to ensure that employees do not become ill. It is also in their long term economic interests to prevent stress, as stress is likely to lead to high staff turnover, an increase in sickness absence and early retirement, increased stress in those staff still at work, reduced work performance and increased rate of accidents, and reduced client satisfaction.¹¹

There is some evidence to suggest that job stress

plays an important role in some types of chronic health problems such as cardiovascular diseases, musculoskeletal disorders and psychological illness. The issue of job stress is of utmost importance to the public health community and working populations. The economic costs of job stress in general (such as absenteeism and lost productivity) are difficult to estimate but most importantly, there is a potential for preventing much illness.¹²⁻¹³

Chronic stress (at the workplace) which has not been successfully dealt with, will lead to burnout. Burnout is characterized by exhaustion and depersonalization (negativism) and is found predominantly in caring and social professions (e.g. social workers, teachers, nurses, doctors, dentists).¹⁴

Beside physical or mental health problems, high levels of stress can lead to poor working relationships and low job satisfaction and the quality of care provided may also be affected.¹⁵

Cross-sectional studies indicate that 10% of dentists experience high levels of 'burnout', a possible long-term consequence of occupational stress. It has been found that dentists lack awareness and knowledge about managing their stress.¹⁶

However, before developing interventions to manage and prevent stress among dentists, the job-related stressors and existing coping strategies need to be determined. The most common stressors reported include time related pressures, heavy workloads, financial concerns, anxious patients, staff problems, equipment breakdowns, defective materials, poor working conditions, medical emergencies in the surgery and the routine nature of the job. Some stressors appear to be linked to the type of health system in which dentists work and the way in which they are remunerated.¹⁶⁻¹⁹

People spend more and more time at work, therefore the leaders of organizations should identify and prevent stress among employees. Today's working environment is very demanding in economical and psychological context. People are emotionally, physically and spiritually exhausted. There is less and less joy within success among people. In organizations the increasing trend of reducing the number of employees means more work for the employed at each workplace. This work overload has effect on physical health and the individual loses his intellectual ability to work. Stress in the workplace can cause huge financial losses and reduce profitability. Stress is therefore a problem of the organization as a whole and not just of an individual.^{20, 21}

By keeping in mind all these problems, present study was conducted. The objective of the present study was to identify the perceived sources of stress among faculty dentists working in public or private teaching institutes of Rawalpindi and Islamabad (Pakistan).

METHODOLOGY

The current research was done in two parts, a pilot study and then main study. In pilot study a sample of 50 respondents were taken to pre-test and establish instruments' psychometric properties in local socio-cultural context.

Main study was carried out on 100 faculty members (including professors, associate professors, assistant professors and demonstrators) working in public/private teaching institutes of Rawalpindi and Islamabad during the year 2011. Dentists selected were by using Non-probability, purposive (Convenience Sampling) technique. Dentists who had minimum of one year job experience in that particular institute at the time of data collection were included, while dentists who were not involved in teaching or dentists on deputation and had less than one year job experience in that particular institute at the time of data collection were excluded.

This was analytical, cross sectional and correlation study. Questionnaires were distributed among them to collect data. The questionnaire designed was based on General Health Questionnaire (GHQ), Role Stressors Inventory, Turnover Intention and Job Satisfaction instruments.

Data collected were entered in computer by using software SPSS Version 17. Multiple regression analysis was computed to examine the relationship between role stressors and outcomes. T-test and ANOVA analyses were used to examine the difference on the basis of gender, public or private sector and experience level respectively. Statistical significance was considered if $p < 0.05$.

RESULTS

The results of the present research showed, out of total 100 dentists, 40 dentists were (40%) males and 60 were (60%) females (Table 1). Out of 100 dentists, 54 dentists were (54%) from private dental teaching institutes and 46 (46%) were from public dental teaching institutes.

Table 5 shows the Correlation Matrix of all variables and it shows that all variables have positive relationship. This study found that dentists who faced more conflict and work overload in their working environment had more turnover intentions.

A surprising thing in the present study was that conflict alone was responsible for 19 % of turnover intention of the dentists (Table 6), while remaining 81% of turnover intention was due to other causes. To compare the difference of role stressors and its outcome between both genders, t-test was applied. More work load was

found in female dentists as compared to male dentists but the difference was not significant. However conflict and turnover intentions were less in male dentists as compared to female dentists but again the difference was not significant (Table 7).

The present study also showed more workload and conflict among dentists working in public/government dental teaching institutes as compared to private dental teaching institutes but on the other hand turnover intentions was more in dentists who were working in private dental teaching institutes (Table 8).

ANOVA was applied to examine the effect of studies role stressors on duration of job of dentist but nothing significant was found except dentists who had more job experience perceived less work overload (Table 9).

TABLE 1: GENDER DISTRIBUTION OF THE RESPONDENTS (N = 100)

Category	Frequency	Percentage	Cumulative Percentage
Male	40	40	40
Female	60	60	100

TABLE 2: AGE DISTRIBUTION OF THE RESPONDENTS (N = 100)

Age	Frequency	Percentage	Cumulative Percentage
20-30	69	69	69
31-40	22	22	91
>40	09	09	100

TABLE 3: DISTRIBUTION OF RESPONDENTS WITH RESPECT TO LENGTH OF JOB EXPERIENCE (N = 100)

Experience	Frequency	Percentage	Cumulative Percentage
01-05	75	75	75
06-10	16	16	91
>10	09	09	100

TABLE 4: ALPHA RELIABILITY COEFFICIENTS OF ALL INSTRUMENTS (N=100)

Variables	No. of Items	Alpha Coefficient
Role Overload	05	.84
Role Conflict	05	.71
Turnover Intention	03	.82

TABLE 5: CORRELATION MATRIX OF ALL VARIABLES (N = 100)

Variables	I	II	III	
Role Overload	---			
Role Conflict	.34**	.58**	---	
Turnover Intention	.26**	.35**	.39**	---

TABLE 6: REGRESSION FOR ROLE STRESSORS WITH TURNOVER INTENTION (N =100)

	B	SE	β	t
Constant	3.60	1.99	—	1.80*
Role overload	.09	.07	.14	1.36
Role conflict	.22	.09	.26	2.34*
R ² = .19				
ΔR^2 = .16				
F=05.85, df 4,95, p<.001				

*p<.01

DISCUSSION

Stress can have detrimental effects on dentists and it is known to be associated with physical distress, psychological distress, emotional exhaustion and burnout. With the development of many new dental institutes in recent years the dentists have got more jobs opportunities. Now, it is a hot topic of their discussion that whether the working environments of private dental teaching institutes are better than government's dental teaching institutes. They compare chances of professional growth, better working environment, salaries packages and job security in both types of the institutes. The present study was the first study in Pakistan to examine the differences in level of some of the common stress factors in both types of teaching institutes and the results of this study do echo some of the findings consistent with international literature.

As the study was limited to the teaching institutes and some seniors were not willing to participate in the study, therefore the sample size of seniors' faculty members was inadequate.

TABLE 7: T-TEST FOR GENDER, ROLE STRESSORS & TURNOVER INTENTION (N=100)

	Male (n = 40)		Female (n = 60)		t	P
	M	SD	M	SD		
Role Overload	12.65	4.62	12.77	4.38	-.12	.90
Role Conflict	10.02	3.41	10.63	3.57	-.85	.39
Turnover Intention	5.82	2.35	6.65	3.25	-1.40	.14

df=98

TABLE 8: T-TEST FOR PUBLIC/PRIVATE SECTORS, ROLE STRESSORS & TURNOVER INTENTION (N=100)

	Private (n = 40)		Public (n = 60)		t	P
	M	SD	M	SD		
Role Overload	11.31	4.61	14.37	3.67	-3.68	.00
Role Conflict	10.28	3.37	10.56	3.68	-.34	.73
Turnover Intention	6.70	3.16	5.87	2.63	1.40	.15

df=98

TABLE 9: ONE-WAY ANALYSIS OF VARIANCE (ANOVA) OF EXPERIENCE LEVEL CATEGORIES FOR SCORE ON ROLE STRESSORS (N=100)

		SS	df	MS	F
Role overload	Between Groups	179.16	2	89.58	4.85*
	Within Groups	1788.99	97	18.44	
Role conflict	Between Groups	7.37	2	3.68	.74
	Within Groups	1208.41	97	12.45	

* p<.05, **p<.01

This study brings out the fact that there is a high level of mental and physical stress among dentists and the conflict with their co-workers specifically put them through a lot of distress. Majority of the dentists were of the opinion that receiving criticism about work was moderately stress provoking factor.

In the present study, the conflict was found to be major culprit among all studied stresses and was contributing 19% of turnover intentions of the dentists. It is very alarming situation that conflict alone is responsible for too much stress, while it can be easily resolved or can be avoided with the help of active and sincere participation of administration or head of institutes. Our dentists are unaware of too much influence of conflict on their working environment. More conflict in government dental institutes shows lack of interest of administration to take care of their employees and it results in more and more stress in dentists. This stress causes lack of interest of employees in their work, ignorance in patient care, absences from the duties and poor performance of the dentists who are still trying to cope with this stress. Those dentists who continuously face conflict reach in exhausted or burnout phase.

The female dentists were found to perceive more stress than male dentists in the present study, which is again consistent with previous studies.²²

The results of the present research showed, female dentists (60%) were more. The reason for this is due to open merit in dental institutes, more females students were as compared to male students. This result is consistent with studies at Canada which showed that dentistry was a profession dominated by men. Women had been making significant inroads only since the 1970s, as a result of professional initiatives and women's movements, raising questions about the effects of feminization on dentistry, defined as an increase of female presence.^{23,24} In 2008, 6 of 10 Canadian dental faculties had more female graduates than male.²⁵

In the recent past years, more and more private dental teaching institutes were established very rapidly in Pakistan and 6 private dental teaching institutes were opened in twin cities of Rawalpindi and Islamabad, therefore the sample size of private dental teaching institutes was more (54%) than from public/government teaching institutes (46%).

Majority of the dentists (69%) in the present research were in age group of 20-30 years, which is again due to establishment of new dental teaching institutes resulted in more chances for the students to get admission. The present dentists' population of Pakistan is in young age group which is shown by sample size of the present study. As majority sample was in young age group so their job experience was less and large sample size lie in category of 1-5 years of experience.

It has been found in this study, that there were more workload and conflict among dentists working

in public/government sector as compared to private teaching institutes but on the other hand turnover intentions was more in dentists who were working in private teaching institutes. This shows that there are some other strong role stressors in the private teaching institutes which drive the faculty to turnover intentions. In other words, dentists at private teaching institutes are not satisfied with their present job and are willing to change their present job with another.

More stress of work load was found in female dentists as compared to male dentists because of added work load of domestic and family problems and this result is in contradiction to an American study. That American study compared stress in male and female dentists and found that stress levels were similar, although women experienced more personal and domestic problems. That study also indicated that burnout due to stress resulted in lowered production, increases in absenteeism, health care costs, and personnel turnover²⁶. The reasons of stress were studied at private dental institute of Islamabad and showed workplace factors played major role in development of stress.²⁷

Similar to present study, another study showed more stress in female faculty than male faculty and women were more affected by time pressure, heavy teaching loads²⁸. However the study of Te Brake contradicts the present study and revealed higher scores of male dentists on the depersonalization/dehumanization dimension than the female dentists.²⁹

Maccacaro found out a higher percentage of burnout due to stress in male than in female in their study of 1604 participants comprising of physicians, administrative staff and local service personnel of hospital departments.³⁰

There is popular belief in a higher woman's susceptibility, lower adaptation possibilities and lower resistance to mental stressors. This may be the reason; the present study concluded that female dentists were more vulnerable to the experience of stress than their male counterpart.

Stress in dentistry is well known condition and is shown by many researches. A study of more than 3,500 dentists found that 38 percent of those surveyed always or frequently were worried or anxious. Moreover, 34 percent of the respondents said that they always or frequently felt physically or emotionally exhausted, and 26 percent said they always or frequently had headaches or backaches. These symptoms often are associated with anxiety and depression.³¹ In the present study it is confirmed that Pakistani dentists' experiences a lot of stress in their working environment in private and government dental institutes but conflict and work overload is more among female dentists of government sector.

CONCLUSION

The amount of stress induced may vary from institute to institute and from culture to culture but with the implementation of few strategies a more friendly environment can be created so that detrimental consequences of stress can be reduced.

Further studies should be conducted to find out the other stressors responsible for turnover intention and burn out of Pakistani dentists. After identification of causes of the stresses, efforts should be made to give training to dentists about how to cope with unavoidable stresses.

It is important for all the teaching institutes to identify stress levels among its faculty to create a less stressful working environment and get maximum performance of them.

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