

# Occupational Stress among Dentists

Alka Gangwar\*, U. V. Kiran\*\*

Student \* & Assistant Professor\*\*

Department of Human Development and Family Studies, School of Home Science, Babasaheb Bhim Rao Ambedkar University (A Central University) Lucknow, India

**Abstract:** *Introduction: Occupational stress is stress involving work. Occupational related stress "is the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope. Stress is a normal physiological response to events that make us feel threatened, or upset our balance in some way. In medicine, it is known that stress, as an emotional state, can be a trigger for many psychosomatic disorders. Objective: To determine the occupational stress among dentist. Participants-120 dentists were selected for the study who are in the age group of <30 and above years, in urban areas of the Lucknow district of Uttar Pradesh. Methodology: Ex- post facto research design was used to obtain and analyze the data. For selection of the respondents, multi stage sampling technique was adopted. A questionnaire was used to investigate the occupational stress among dentists using Occupational Stress Index (Srivastava & Singh, 1976). Such as unnatural postures, feel discomfort, allergy, health related problems etc. Statistical Analysis: PAS Software was used for statistical processing. These study examined occupational stresses according to age of respondent were through ANOVA. Results and Discussion: The findings of ANOVA revealed a highly significant difference between the Occupational stresses among dentist. Conclusion: From the study, it can be concluded that the age of the respondent affected the respondent's health. Stress, Low back pain, physically stress, is a one of the most common symptoms throughout the general population, mainly caused by long hours of work, types of work, gender.*

**Keywords:** Hazards, stress, dentist.

## 1. Introduction

Stress is currently endemic in the modern world and dentists are highly prone to stress. In fact, dentistry has been considered one of the most stressful of all healthcare professions. Dentists currently feel more than ever that they are subject to levels of stress that are unacceptably high. Possibly, the image of dentistry as being stressful is part of the dental culture and tends to override the personal experience. Some studies indicate that dentists perceive their profession to be more stressful than others and that suicide, chemical substances dependence, burn out and musculoskeletal problems may be among the manifestation of this perception. Certain stress factors can pose a serious threat to physical and psychological well-being, with one of the possible consequences of chronic occupational stress being professional burnout. Professional burnout is considered to be one of the major determinants of psychological incapacitation resulting in a lower rate of productivity, in addition to greater absenteeism, healthcare costs and personnel turnover. Dentist in general practice experience more physical and mental illnesses than other healthcare workers. In addition, the highest overall stress levels among general practitioners were associated with those respondents who had grater job dissatisfaction, long working hours, dealing with uncooperative patients, and working under constant time pressure. The heavy workload, the repetitive nature of the work, and fear and anxieties concerning patients and payments may all contribute to why dentists are the most stressed of health professionals. Studies on stress factors among dentists in different parts of the world are inconsistent and scientific data limited (M, 2008).

Stress related with a job or occupation is called occupational stress. Stress is a universal phenomenon, excess of which results in intense and distressing experience. Occupational stress refers to a situation where occupation related factors interact with employee to

change i.e. disrupts or enhance his / her psychological and or physiological conditions such that the person is forced to deviate from normal functioning. Occupational stress is generally defined in terms of relationship between a person and his environment. There is potential for stress when an environmental situation is perceived as presenting demand which threatens to exceed the person's capabilities and resources for meeting it. Every occupation has some stress, which may differ in its degree (Bhatt, 2013).

Modern life is full of hassles, deadlines, frustrations and demands. For many people, stress is so common that it has become a way of life. Stress is a normal physiological response to events that make us feel threatened, or upset our balance in some way. In medicine, it is known that stress, as an emotional state, can be a trigger for many psychosomatic disorders. In the last decade of the 20th century, stress was a topic of high interest in medicobiological research. The dentist as a specialist enjoys a high degree of professional independence. His foremost social responsibility is to treat patients suffering from toothache and to promote oral health prevention for all people, regardless of their social status. At the same time, the dentist is prestigious, respected and honest. Comparable to other professions, dentistry is under public pressure. However, work stress and burnout are considered to be serious professional risks in dentistry. The dentist should be aware of these stressors and attempt to manage them in order to avoid becoming occupationally dissatisfied. On the other hand, the other common characteristic of modern life is a growing burden from different chronic diseases. Periodontal disease is one of the two most important oral diseases contributing to the global burden of chronic disease. Periodontal disease is a widespread pathology that affects about 40% of the population, especially those over 40 years. Periodontal disease is also known as the 'loose teeth disease'. The disease starts as an inflammation with bleeding from the gums and deepened periodontal pockets. Inflammation is

not stopped; it spreads into the bone the teeth are attached to, leading to bone and dental retracts. Finally, the teeth become loose and fall out. Normally, this is a slowly progressive condition, but even after years of struggle it ends with tooth lessness because of the disease. In addition to social determinants, periodontal health status is related to several proximal factors. Modifiable risk factors, such as tobacco use, excessive alcohol consumption, poor diet and nutrition, obesity, psychological stress and insufficient personal/oral hygiene, are important and these principal risk factors for periodontal disease are shared by other chronic diseases. Epidemiological findings say that chronic periodontitis affected about 750 million people or some 10.8% of the population in 2010. Like other conditions intimately related to access to hygiene and basic medical monitoring and care, periodontitis tends to be more common in economically disadvantaged populations or regions. Its occurrence decreases with a higher standard of living. In the Israeli population, individuals of Yemenite, North-African, South Asian, or Mediterranean origin a higher prevalence of periodontal disease is diagnosed than in individuals of European descent. Parodontosis is really dangerous. It may be inevitable and some people can have it when they grow older, around 30–40 years of age. There are cases when even children or adults who are still young have a case of periodontal disease (another name for parodontosis). Parodontosis may have really detrimental effects. It can also be dangerous as it affects not only the dental health, but the physical health too. Many epidemiological studies have indicated that periodontitis is an important risk factor for coronary heart disease (Pop-Jordanova, 2013).

### 3. Result and Discussion

**Objective:** The present study was taken up to investigate the occupational stress among the dentists.

#### Hypothesis

H0: There exists no significant difference in occupational stress among dentists across various age groups.

## 2. Material and Method

**Study Design:** Ex- post facto research design.

**Sampling Technique:** For the selection of the respondents, multistage random sampling technique was adopted. The present study was conducted in different areas of Lucknow city. Occupational stress was measured using Occupational Stress Index (Srivastava & Singh, 1976). Data was collected from 120 respondents who were randomly selected from private (30 male, 30 female) and government hospitals (30 male, 30 female).

**Statistical Analysis:** PAS Software was used for statistical processing. Occupational stress among dentists was analyzed through t-test and ANOVA.

**Table 1:** Assessment of occupational stress according to age

Statement	Age(in years)								F	P
	<30		30-40		40-50		>50			
	Mean	SD	Mean	SD	Mean	SD	Mean	SD		
Unnatural postures	3.16	3.75	3.28	.45	3.18	3.66	2.0	4.0	20.12**	.00
Repetitive movements	3.11	.31	3.07	.25	3.24	.43	4.0	.00	43.63**	.00
Standing position	3.26	4.52	3.37	.48	3.45	.50	4.0	.00	11.43**	.00
Back neck position	3.58	5.07	3.70	.40	3.76	.43	3.95	.22	2.64**	.00
Seated upright position	3.16	.37	3.05	.21	3.32	.47	4.0	.00	39.59**	.00
Continuous sitting	3.16	.37	3.07	.25	3.32	.47	3.85	.36	20.95**	.00
Heaving work load	3.37	.49	4.0	.00	4.0	.00	4.0	.00	20.79**	.00
Back pain	3.11	.31	3.42	.49	3.68	.47	3.95	.22	15.12**	.00
Visual fatigue	1.21	.41	2.19	.58	2.68	.52	4.0	.00	113.88**	.00
Congested work place	2.63	1.11	2.19	.90	2.34	1.02	2.90	1.21	2.52**	.00
Health problem	1.0	.00	2.02	.51	2.84	.82	4.0	.00	109.11**	.00
Physical stress	2.05	.01	2.72	.82	2.79	.62	4.0	.00	26.29**	.00
Instrument	2.47	1.26	2.40	.66	2.32	.47	2.80	.61	2.02	.11
Physically fatigued	1.89	.93	2.51	.59	3.13	.62	3.55	.68	24.81**	.00
Skin problem	1.63	.49	1.88	.49	1.87	.66	2.65	.53	12.48**	.00
Hearing problem	1.00	.00	2.14	.67	2.61	.54	3.40	.75	57.39**	.00
Irritation/readiness in eye	1.05	.22	2.28	.73	2.76	.59	3.40	.68	51.30**	.00
Highly physical	2.05	.84	2.65	.87	2.97	.85	3.70	.57	14.2**	.00
Lot of thinking	2.16	.83	2.72	.59	2.87	.52	3.30	.57	11.67**	.00
Irritation to chemicals	2.21	.53	2.09	.68	1.89	.72	1.75	.71	2.05	.11
Injured pointed instruments	2.89	.43	2.28	.63	2.32	.70	2.10	.71	5.69**	.00
Maximum movements	3.0	.00	3.02	.15	3.34	.48	3.05	.22	9.76**	.00
Rough, dry skin	2.0	.00	2.19	.39	2.39	.49	2.95	.22	25.15**	.00
Standing banding, lifting	1.63	.68	2.40	.54	3.08	.27	3.95	.22	98.33**	.00
Swelling and stiffness	1.37	.49	2.33	.60	3.03	.16	4.0	.00	143.79**	.00
Satisfied with my job	1.95	.78	2.19	.45	2.42	.55	3.35	.74	22.38**	.00

Emotionally exhausting	2.0	.00	2.23	.42	2.55	.55	<b>2.55</b>	.51	8.50**	.00
Allergic reaction	2.0	.00	2.02	.15	2.39	.59	3.60	.59	70.34**	.00
Clinical practice	3.0	.00	3.02	.15	3.63	.16	3.80	.41	76.19**	.00
Health problem	3.0	1.41	2.12	1.02	1.55	.76	2.45	1.96	7.88	.00

\*\* Highly Significant (Significant at 0.01 level)

The impact of age on the occupational stress was tested and the same is presented in **Table 1**. Highly significant differences in every area across age for all parameters are seen and hence null hypothesis is rejected.

The problem in all areas among dentist has a very higher impact due to age. It can be observed that as age increases, the intensity of stress also increases. But variation is observed in the ages of <30 and 50 and above. In comparison to the dentist 50 and above Of all occupational hazards, maximum problem among all the age groups is reported in unnatural posture, repetitive movement, feel discomfort in standing position, beck neck position, back pain, standing, bending and lifting etc. The problem of dentist clearly indicates the defective design, unnatural posture, maximum movement, health problem in the work space of the dentist. Age has a significant impact on their problem and adjustable additional features may be incorporated for making the dentist work space comfortable and efficient, professional counseling for personal problem, meditation, yoga, etc. to reduce the stress.

#### 4. Conclusion

Dental students experience stress arising from both academic and socio-cultural environment. Dental educators should counsel the students in decreasing the amount of stress and increasing the ability to cope with stress and also a favorable environment and motivation need to be provided to the students, and parents should not force their children in career decision, (Ara,2015). Lower back pain, beck neck position, unnatural posture, maximum movement, standing position, visual fatigue, standing, bending and lifting are some of the most common symptoms throughout the general population, and are mainly caused due to long hours of work in a restricted posture and age group of the respondent. Dentists spend longer time in dentistry than other professions. Back pain, neck pain, shoulder pain, due to regular shifts are also reported by the dentists. The problem in occupation clearly indicate the defective design in the work space, having work load, maximum and repetitive movements, Age has a significant impact on their problem and adjustable additional features may be incorporated for making the dentist work space, comfortable and efficient. Professional counseling for personal problem, meditation, yoga, etc. may be popularized to avoid stress among dentists.

#### References

- [1] Newton J.T. et. al. (2002) "Stress in dental specialties A comparison of six clinical dental specialties" primary dental care Vol 9(3) : 100-104
- [2] Ara S.A. etal (2015) "Assessment of stress level among dental under graduate students A questionnaire survey" international journal of scientific study, Volume 2 (12) 140-143

- [3] Oubifia V.R.T. etal (1997) "Occupational stress and state of health among clinical psychologists and psychiatrists" psychology in spain, Vol11(1) 63-71
- [4] Jamjam H.M. etal (2008) "Stress among dentists in jeddah, Saudi Arabia" Studi dental burnd, Vol 20(2) 88-95
- [5] Radillo B.E.P. etal (2008) "Stress associated factors in Mexican dentists". Occupational HEALTH Vol 22(3): 2 (2) :3-8
- [6] Hamzeheil Z.(2015) "Stress evaluation of dental clinic students and its related factors" the international journal of Indian psychology, vol2(2) 54-64
- [7] Niharika and Kiran,U.V. 2014. Occupational stress among bank employees. European Academic Research, 2(4): 5404-5411.
- [8] Aadya and Kiran, U.V. 2013. Occupational stress of women workers in unorganized sector. International journal of scientific and engineering research, 4(3):3-13.
- [9] Dwivedi P. and Kiran, U.V.2013. Occupational health hazards among farm women. International journal of humanities and social science. 2(7):8-10.
- [10] Gambhir R.S. et. al. (2011) "Occupational health hazards in current dental profession- A review" The open occupational health & safety journal 3:57-64