

Evaluation of Stress Level Among Orthodontists: A Survey Based Study

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ABSTRACT

Background: Now a days dentistry is considered a highly stressful occupation, with work-related stress levels among dentists being among the highest compared to other professions. Unfortunately, there are very few studies regarding the levels of work-related stress among dentists particularly orthodontists.

Materials and methods: This study was based on an online survey. A total of 48 orthodontists were assessed for the level of physical, mental and emotional stress. A questionnaire was made and all the orthodontists in the study were asked to answer on scale of 1 to 5 where 1 indicated minimum score and 5 maximum through e-mails.

Results: In this online survey 29.16 % orthodontists showed minimal stress, 41.6 % orthodontists were reported with moderate stress and whereas 29.16 % were reported with high stress .very minimal as well as dangerously high level of stress was not reported in any of the orthodontists under study.

Keywords: Stress, orthodontists, workplace, survey.

INTRODUCTION

Stress has become a major problem in our society. For medicine, it is an interdisciplinary problem. We can distinguish various factors, for example, endogenous, that is, the disease, or exogenous, for example, workplace, environment, and socioeconomic status. The negative effects of stress contribute to a number of disorders and dysfunctions. Stress also triggers fear of the unknown, worries about patient's future, and future of his/her family. Usually it manifests itself as headache, neckache, choking sensation in the throat, trembling eyelids, and limbs. There are other symptoms such as tachycardia, palpitations, excessive sweating, and dry throat. List of ailments caused by stress is extensive. The largest groups are diseases of the heart and circulatory system¹. With the fast-evolving knowledge and resulting competition dentistry has become one of the

stressful professions. Dental work is characterized by isolated conditions and a strong reliance on technical skills, also less quality time with family and friends, lack of time for exercise and food etc; resulting into stressful life.²

Now a days, stress level in the dental profession is very much high, while job satisfaction is on the decline³. Dental professionals perceive dentistry to be more stressful than other occupations.⁴ This is consistent with their experiences of moderate to severe stress at work, where they get an average of five to seven significant stress contributory factors each day.⁵ The most common contributing factors are (1) time pressures, (2) patient demands, (3) uncooperative patients (pediatric, fearful, nervous, or militant), (4) high levels of concentration and focus, and (5) team issues. Burnout, mood disorders (particularly depression and anxiety), alcohol abuse, and physical health issues such as

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cardiovascular problems can be easily encountered in dental practices.^{2,3}

The suicide rate of dentists is more than twice the rate of the general population and almost three times higher than that of other white collar workers. Emotional illness ranks third in order of frequency of health problems amongst dentists, while in the general population it ranks tenth. Coronary disease and high blood pressure are over 25% more prevalent among dentists than in the general population. Dentists suffer psycho-neurotic disorders at a rate of 2 1/2 times greater than physicians.

The dental treatments are both physically and mentally stressful and as a result, strain, back troubles, circulatory disorders and fatigue are common. It is relatively easy, over a period of time, for a dentist to become both physically and emotionally "burned-out." Isolation, stress of perfection, economic pressure, time pressures, compromise treatment frustration and patient anxiety are some of the important causative agent of stress in dental practice. The study on level of anxiety and stress are very less and hence this study aimed to assess job related stress in orthodontists.

MATERIALS AND METHODS

To conduct an online survey, a questionnaire was developed which included a scoring pattern from 1 to 5. 1 indicated least stress level whereas 5 indicated maximum level of stress (Table 1). The questionnaire was sent to around 60 orthodontists in including post graduate students of the speciality through e-mails. Out of 60, response was obtained only by 48 orthodontists. Hence this study was conducted based on the responses obtained by 48 orthodontists. The questionnaire included questions like quality and duration of sleep, work satisfaction, energy levels, personal relationships and professional relationship.

Table 1: Grading system used in questionnaire.

Sr no	Grading of stress	Scores	Inference
1	GRADE 0	20-30	NO STRESS
2	GRADE 1	31-40	LOW/ MINIMAL STRESS
3	GRADE 2	41-50	MODERATE

			STRESS
4	GRADE 3	51-60	HIGH STRESS
5	GRADE 4	61-70	DANGEROUS STRESS

RESULT AND DISCUSSION

Hans Selye defined stress in the 1930s as all that is unpleasant, noxious, or excessively demanding⁶. The identified top stressors or excessively demanding tasks that orthodontists are dealing with on a regular basis are; patients that show dissatisfaction with care received, performing difficult tasks on a difficult or uncooperative patient, falling behind schedule, constant time pressures, motivating patients with poor oral hygiene and/or decalcification as well as patients with broken appliances. Time pressures and motivating patients with poor oral hygiene and/or decalcification came out especially high in the rankings.

Table 2: Response obtained by various orthodontists.

Sr.no	Grades	Responses(in percentage)
1	Grade 0	0 (0%)
2	Grade 1	14 (29.16%)
3	Grade 2	20 (41.6)%
4	Grade 3	14 (29.16%)
5	Grade 4	0%

Table 2: Percentage of responses in various grades according to various variables.

Variables affected by stress	Grade 0	Grade 1	Grade 2	Grade 3	Grade 4
sleep	10	35	26	14	15
Energy level	42	22	6	23	7
Personal relationship	18	22	8	23	29
Professional relationship	34	7	30	24	5
Work satisfaction	48	32	6	8	6
Quality of job environment	7	44	6	41	2

Result of the present study showed that each and every orthodontist in study was found to be affected by certain amount of stress which was evident by

0% response in grade 0 (table 1). A total of 14 (29.16%) orthodontists, among 48 were found to be minimally affected by job related stress level (grade 1). 41.6% response was recorded for level grade 2 which indicated that 20 out of 48 orthodontists were affected moderately by job related stress and in these orthodontists, chances of burnout development can be predicted. Around 29.6 % responses were recorded for grade 3 which indicated a good number of orthodontists affected seriously by job related stress. No response was recorded for grade 4 level which indicated that no orthodontist was in emergency condition due to job related stress. Results of this study was found to be almost identical with those done by Vinay V. Bedre⁷ who found 26 % responses for minimal stress with no signs of burnout, 38 % responses for moderate stress with fair chances of burnout and 36 % responses for high level of job related stress.

While considering various variables (table 2), personal relationship was found to have more impact due to job related stress. 15 % of responses was recorded in grade 4 for sleep category which indicated a disturbed sleeping pattern in majority of orthodontists. Various studies have shown that in comparison to the general population, dental students have been reported to experience increased levels of anxiety and depression.⁸ A study conducted comparing chronic stress between medical and dental students concluded that chronic stress was more pronounced⁹ among dental students. Previous findings of similar studies showed that "lack of leisure time" and "completing graduation requirements"¹⁰⁻¹² are the main causative factor of stress in dental students.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

CONCLUSION

Our study reveals high levels of stress and burnout among orthodontists which is a matter to be discussed efficiently and proper solution should be investigated to decrease the job related stress. Regulating bodies of dentistry should take initiatives to provide financial security and future job prospects for the overall dental professionals. Stress can never be totally eliminated

from dental practice. However, it must be minimized as much as possible in order to avoid the many stress-related physical and emotional problems that it causes.

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