

Comparison of Psychological Health Status among Dental Practitioners, Academicians and who are both in Telangana State - A Cross-Sectional Study

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Abstract

Background: Dentistry is a nerve racking, high-risk profession, where dentists encounter innumerable sources of stress beginning in dental school. These issues may significantly affect their physical health, mental health or both. This requires a need to acknowledge the existence of the problems within the dental profession and to establish ways to prevent and alleviate stress and other psychological disorders among dentists.

Objectives: To compare the psychological health status among dentists who are practitioners, academicians and dentists who are both practitioners as well as academicians.

Methodology: A cross sectional study was conducted among 450 dentists, of 150 in each group. All the dental academicians and dentists who work as both practitioners and academicians working in dental colleges, and present on the day of the survey were included till the representative sample was reached. Dental practitioners were selected by simple random sampling from the practitioners list obtained from IDA Telangana. Data was collected by using General Health Questionnaire.

Results: The mean psychological health score for the dentists who work as both academicians and practitioners was found to be 3.51, academicians were 3.35 and practitioners were 2.05. A significant difference was observed when all the three groups were compared regarding their psychological score.

Conclusion: The study revealed that dentists who work as both academicians and practitioners were more likely to predispose the psychological disturbances than the other two group of dentists.

Keywords: Dentists; Psychological Health; Practitioners

Abbreviations

WHO: World Health Organization; GHQ: General Health Questionnaire; SPSS: Statistical Package for Social Sciences; ANOVA: Analysis of Variance; IDA - Indian Dental Association

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Introduction

Everyone in the world has been witnessing the fruits of that form of “health” throughout our society in recent years, in the form of dysfunctional lives and failing institutions. Part of the reason is that we now live in a highly interconnected, unpredictable, digitalized world of “non-equilibrium”. It presents new challenges for individual lives and society to revamp our thinking about psychological health, to take into account its new realities and challenges. According to the World Health Organization (WHO), psychological health is one of the most important health issues prevailing throughout the world [1,2].

Dentistry is a nerve racking, high-risk profession, where dentists encounter innumerable sources of stress beginning in dental school. Their foremost social responsibility is to treat patients suffering from a toothache, oral diseases and to promote oral health prevention, regardless of their social status. At the same time, dentistry is a prestigious, respected and honest job, compared to other professions, which is under public pressure [3]. Evidence suggests that working in dentistry can be detrimental to the long-term health and general well-being of an individual, due to the mentally and physically challenging nature of the profession.

Dental practitioners are the dentists who often work alone, coupled with the strain of simultaneously running a business and providing a high standard of clinical care to patients, enduring a psychologically stressful life [4,5]. On the other hand dental academicians who are into teaching role exclusively also experience various stresses, such as workload pressure, lack of resources, poor relationships with colleagues, unrealistic expectations from higher authorities and difficult interactions with pupils and parents which can contribute to their psychological ill health [6].

Most of the dentists take on a dual role, experiencing tension from innumerable sources like having responsibility for teaching students, postgraduate trainees and as well as caring for patients [7]. Hence there is a need to acknowledge the existence of the problems within the dental profession and to establish ways to prevent and alleviate stress and other psychological disorders among dentists. The General Health Questionnaire (GHQ) given by Goldberg is a well-known self-administered screening test aimed at assessing psychological health status among respondents in community settings and non-psychiatric clinical settings [8].

Given the above and in view of the fact that no sufficient information exists about dentists psychological health status at a national scale, the present study was undertaken to address this issue and also to compare among the three different groups of dental professionals i.e. dental practitioners, dental academicians and dual role dentists who are into both practice and teaching.

Materials and Methods

The present study was a descriptive cross-sectional survey conducted to compare the psychological health status among dental practitioners, academicians, and dentists who work as both academicians and practitioners. Ethical clearance was obtained from the institutional review board of Sri Sai College of Dental Surgery, Vikarabad. Permission from the authorities of the dental colleges was obtained prior to the start of the study. All the dentists were informed about the purpose of the study in detail and verbal consent was obtained from individual prior to the collection of data. A pilot study was carried out initially on a sample of 30 dentists, taking 10 in each group, based on which a sample of 150 dentists in each group was estimated. The questionnaire used was a well-known standardized self-administered screening test General Health Questionnaire given by Goldberg in 1972 which is aimed at assessing the psychological health status [8]. The questionnaire consists of 12 questions which were cross-culturally validated in many countries and the original English version was used in the present study. All the faculty members from 12 dental colleges in Telangana state who were present on the day of the study and willing to participate were included till the representative sample of 150 in each was achieved for two groups, which included dental academicians and those who work as both academicians and practitioners. Fifteen full-time practitioners from each district were randomly selected from the list of dental practitioners registered under Indian Dental Association. If the selected practitioner

was unavailable on the day of the survey, the next practitioner was randomly selected till we reached a sample of 15 practitioners. The collected data were analyzed using statistical package for social sciences (SPSS) 21.0 version. Descriptive statistics, Pearson’s Chi-square test and ANOVA test was applied.

Results

The dentists in the present study were categorized into three groups, the academicians, the practitioner and the dentists who work as both academicians as well as practice too. 150 dentists from each group were included which made up for a total of 450. Table 1 gives the demographic details of the dentists in the three groups like gender, age, qualification and number of working hours per week.

Variable	Academician n (%)	Practitioner n (%)	Dual Role Dentist n (%)
Gender			
Male	38 (25.33)	99 (66.00)	104 (69.33)
Female	112 (74.67)	51 (34.00)	46 (30.67)
Age			
<30= yrs	82 (54.67)	84 (56.00)	38 (25.33)
31-40 yrs	55 (36.67)	52 (34.67)	76 (50.67)
>=41 yrs	13 (8.67)	14 (9.33)	36 (24.00)
Mean	31.34 ± 6.64	31.52 ± 7.07	36.6 ± 8.22
Marital Status			
Married	103 (68.67)	104 (69.33)	128 (85.33)
Un Married	47 (31.33)	46 (30.67)	22 (14.67)
Qualification			
BDS	68 (45.33)	116 (77.33)	5 (3.33)
MDS	82 (54.67)	34 (22.67)	145 (96.67)
Working hours per week			
< 30 hrs	51 (34)	66 (44.00)	6 (4.00)
31 - 45 hrs	99 (66)	45 (30.00)	38 (25.33)
46 - 60 hrs	0 (0)	23 (15.33)	53 (35.33)
> 60 hrs	0 (0)	16 (10.67)	53 (35.33)

Table 1: Demographic and work related factor of the three groups of dentists.

Table 2 describes the distribution based on the GHQ scores. A score of 0 indicates no evidence of probable psychological ill health, which was seen only among 2% of academicians, 3% of practitioners and 1% of dentists who work as both academicians and practitioners. Majority of the dentists from the three groups were having a psychological score of 1 - 3, indicating less than optimal psychological health. There were 38% academicians, 18% practitioners and 47% dentists who work as both academicians and practitioners with a morbidity score of 4 or more indicating probable psychological disturbance. A significant difference was observed when all the three groups were compared regarding their psychological score by using ANOVA.

Score	Academicians	Practitioners	Dual role dentists
0	3 (2%)	4 (2.7%)	1 (0.7%)
1 - 3	90 (60%)	118 (78.7%)	79 (52.7%)
> 4	57 (38%)	28 (18.6%)	70 (46.6%)
Mean	3.35 ± 2.56	2.05 ± 1.95	3.51 ± 2.08
P-value	0.0001*		

Table 2: Comparison of three groups based on GHQ scores.
p* < 0.05.

Table 3 shows the comparison of psychological health status of three groups with demographic details and work related factors. Females were having a higher mean with 3.45 in academicians group and 3.59 in dentists group who work as both academicians and practitioners indicating probable higher psychological disturbances when compared to males. It was observed that dentists belonging to the age group <= 30 years were having a greater psychological mean score among the three groups. Married dentists were having a higher mean of 3.40 score in academicians group, 3.52 in dentists group who work as both academicians and practitioners indicating that married dentists were having probable higher psychological disturbances. Postgraduate dentists who work as both academicians and practitioners were having a mean of 3.54 indicating higher psychological disturbances than that of the undergraduate dentists with a mean of 2.60. It was interesting to observe that significant relation was observed with the number of working hours per week in the practitioners group only and the remaining all findings were seen to be not significant

Variable	Academician		Practitioner		Dual role dentist	
	GHQ	P-value	GHQ	P-value	GHQ	P-value
Gender						
Male	3.05 ± 2.43	0.4142	2.12 ± 2.04	0.5531	3.48 ± 2.23	0.7733
Female	3.45 ± 2.61		1.92 ± 1.76		3.59 ± 1.72	
Age						
<=30yrs	3.59 ± 2.88	0.4419	2.18 ± 2.23	0.5836	3.95 ± 1.69	0.2835
31 - 40yrs	3.02 ± 2.10		1.96 ± 1.60		3.29 ± 2.25	
>=41yrs	3.23 ± 2.09		1.64 ± 1.22		3.53 ± 2.06	
Marital status						
Married	3.40 ± 2.49	0.7171	2.02 ± 1.84	0.7483	3.52 ± 2.16	0.8865
Un married	3.23 ± 2.74		2.13 ± 2.19		3.45 ± 1.57	
Qualification						
BDS	3.57 ± 2.74	0.3244	2.16 ± 1.94	0.2383	2.60 ± 1.52	0.3199
MDS	3.16 ± 2.40		1.71 ± 1.96		3.54 ± 2.09	
Working Hours						
< 30 hrs	2.02 ± 2.01	0.0008	1.30 ± 1.35	0.0001*	4.00 ± 2.45	0.8009
31 - 45 hrs	3.94 ± 2.63		2.04 ± 1.64		3.53 ± 1.93	
46 - 60 hrs	-		3.48 ± 2.52		3.26 ± 1.99	
> 60 hrs	-		3.27 ± 2.43		3.75 ± 2.37	

Table 3: Comparison of psychological health status of three groups with demographic and work related factors.
*p < 0.05.

Discussion

For many years, studies have suggested that dentistry generates more stress than any other profession, primarily because of the nature and working conditions of the dental surgery and requires an immediate acknowledgement towards their psychological health care [9]. In the present study, a comparison of psychological health status among three groups of dentists was done and has been noticed that academicians were having a psychological health score mean of 3.35 which was found to be more when compared to the practitioners. This fact may be attributed to several factors which affect their psychological health such as, the increased number of students being taught without compensatory increase in staff numbers, the increased number of weeks during the year in which teaching occurs, and functioning of an academician within the context of an integrated curriculum in which they have less control over what is taught and when it is taught. The academician may be asked to conform to approaches to teaching and learning and to learning strategies irrespective of their own beliefs or convictions. This results in having less discretion as to how to do their work [10].

Practitioners are one occupational group who has increased prevalence rates of perceived stress and psychological ill health, and in the present study it was seen that 18.6% scored 3 or more on the GHQ-12. This was in accordance with a study done by Holt J where 28% of General Practitioners scored above 3 returning a score indicating psychological distress. Along with the previous reports from Australia and New Zealand where 31% scored more than 3 using the GHQ-12 [11].

Dental practice is industrial work which is confined in the cubicles of their clinics, where the practitioners are only concerned about, how to attend the chief complaint of the patient and their fee [12]. Practitioners in India work for seven days were as the other countries practitioners work for only five days which add up to the workload and pressure affecting their psychological health. However, the mean of the practitioners was found to be 2.05 which was less when compared to the other two groups.

It was interesting to know that dentists who work as both academician and practitioner appeared more likely to predispose than the other two group dentists in developing psychological disturbances with a mean of 3.51. In India, most of the dentists are in a dual profession job of teacher and practitioner, who practice or work for monetary benefits [13].

They are driven by their needs, need providers, need attender, responsibility bearer, demand supplier and many such roles which make them work a little extra. Otherwise may be a rare possibility is the passion for practicing apart from teaching.

In the present study, female dentists were found having higher psychological disturbances with a mean score of 3.45 in academicians group and 3.59 in dentists group who work as both academicians and practitioners. Female dentists compared to males might take an increased burden of responsibility, to function in two roles one being a mother and or wife, another one to be a family supporter. This substantial difference in gender was found in a study done by Puriene A., *et al.* where the complaints regarding their ill psychological health were more prevalent among females than males [4].

Dentists who were below 30-year age group had slightly higher score than older dentists, this could be attributed to less practical experience, since most of the surveyed dentists in this study were young and had a lack of experience, this agrees with the study of Bourassa., *et al.* and Al-Zubair NMA., *et al.* They inferred that multiple factors can predispose and provoke stress in the early years of practice, of them are fear of making mistakes, heavy and/or under workload, previous thoughts that patients can be too demanding and concerns about payment in general [14,15].

The study shows married dentists were having higher psychological disturbances with a mean score of 3.40 in academician groups, and 3.52 in dentists group who work as both academicians and practitioners. Having a settled life and bearing family responsibilities make married individuals more determined towards their work, taking in more pressure to ensure that their productivity is not affected.

This was in concordance with Madhan B., *et al.* where married dental students were showing lesser stress symptoms than that of unmarried dental students [16].

Dentists without master's degree were having higher means in academicians 3.57 and practitioners 2.16 groups. This may be due to various reasons but the most important in it is achieving the post-graduation degree, most of the people have a perception that specialists can perform efficient treatments than a general dental surgeon which was consistent with a study by Wun Y., *et al.* which might make them insecure about their position in the society and ultimately builds up the pressure and affects their psychological health [17].

In the academicians's group, significant difference was observed in number of working hours where the mean psychological health score has increased with increase in the number of working hours. This can be featured to the fact that along with the clinical workload, research activities, and administrative workload, postgraduate training responsibility has added up to the pressures of academicians. This results in having less time to relax from work and participate in family life. Many studies have shown stress in teachers which is to be related to working hours, role overload, and concerns such as pupil misbehavior, time/resource difficulties, professional recognition needs, workload and poor relationships [18-21].

The major limitation of the study is its cross-sectional nature, limiting inferences of causality, and its dependence on self-reporting, resulting in possible over or under reporting of the condition. Hence a longitudinal study is needed to resolve this underlying limitation.

Conclusion

Dentists who work as both academicians and practitioners appeared more likely to predispose than the other two groups of dentists in developing psychological disturbances. Overall it has provided further evidence that dentistry can be detrimental to the long-term psychological health of an individual. Dentists in Telangana do experience impairment in psychological health status. Stress management, personal and professional awareness training programs need to be included in the curriculum, so that threats to physical and mental well-being caused or associated with the dentistry may be avoided or addressed.

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