Original Article

Dentists in India Feel Hopeless as a Full time Acadimician: A National Survey

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Abstract

Aim: Assess the relationship between job satisfaction and feeling of hopeless among dental academicians. **Setting and Design**: Cross-sectional study was conducted among dental academician across North india through email and social media using a pretested questionare. **Methods and Materials:** An Internet based cross-sectional survey was conducted among dental academician via social media and electronic mail throughout India. Demographics, credentials and job satisfaction across five dimensions (Working conditions, pay and promotional potential, work relationship, use of skill and abilities, and work activities.) were rated on a 5 point rated scale and a sense of hopeless was assessed using brief G neg scale. The results were collected using self reported google form. Bivariate and multivariate analyses were performed to identify the risk towards hopelessness and the relationship between job satisfaction and hopelessness was assessed using student's *t* test. **Results and Conclusion:** The mean hopelessness score among dissatisfied faculty was 8.5 and among satisfied was 5.6 ($P < 0.05$). Tutors, assistants, and associate professors with salary of INR < 0.05), and those willing to quit reported significantly lesser hopelessness compared to no/maybe. Regarding job satisfaction, greater hopelessness was reported with poor work relationships, poor working conditions, and poor pay and promotional opportunities ($P < 0.05$). Dental academicians in India are highly dissatisfied with their career as a full-time teaching faculty. Willingness to quit has a positive effect on hopelessness, depicting the stress faculties experience in institutions. Job satisfaction among academicians plays a vital role in the student's dental learning experience and dissatisfaction will have huge ramifications on the quality of dental education and future graduates in India.

Keywords: Dental education, Dental faculty, Hopelessness, Job satisfaction.

Introduction

A pleasurable emotional state resulting from the appraisal of one's job is defined as job satisfaction. Faculties of Indian dental institutes spend almost one-third of their day at the institution engaged in various activities directly or indirectly related to academic affairs, and they form the epicenter of the workforce in their institutions. In this era of academic warfare, with universities competing for national and international academic accreditation and rankings, everything is finally dependent upon the faculty's performance. Academicians satisfied with their job show better organizational commitment in improving the success and progress of the institution. Moreover, they do not want to quit the organization.[1] However, not all dissatisfied employees quit, some stay in the institution and might be pernicious to the vision of the institute by acting complacent and affecting the work efficiency of the entire team.[2] Several factors affect an employee's job satisfaction, and organizational factors that play a key role include responsibilities/nature of duties, salary/income, an opportunity for promotion, work-life balance, and relationship with co-workers.[3] At present, almost all institutes teaching dentistry are pushing towards excellence in research and innovation, and the excellence of each institute rests on the talent and contribution of the faculty.[4] Most of the institutes pushing towards excellence have entrusted the academicians with maintaining records on quality standards, preparing reviews for inspections, etc., apart from regular teaching and research work, which further exacerbates the

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already stressful environment.[2,5] The country producing the largest dental workforce every year has many challenges. Academicians in developed nations can afford to quit academia as private practice tends to be more lucrative. In India, however, supply and demand imbalance and overpopulation of dental clinics have made private practice risky for fresh graduates. Establishing a dental clinic requires huge financial investment and avenues for lucrative practice in cites are already choked.[6,7] At present, there are 310 dental colleges in India and reports showed rising levels of unemployment among dental graduates in 2016. The Dental Council of India (DCI) scrapped proposals for opening new dental colleges to mitigate the existing problem of acute job shortage. Despite the job and financial security provided by institutions to academicians, the past 5 years have witnessed the quality of dentistry plummeting along with an alarming rate of dental academicians burning out because of stress. Therefore, it helps to beg the question, "is this because academicians are not enthusiastic enough to impart quality education?" Alternatively, "is it because they are genuinely dissatisfied with their career trajectory in their respective institutes?" To answer these enigmatic questions and understand the general attitude on a national scale, as well as the relationship between job satisfaction and sense of hopelessness among Indian dental academicians, we conducted an online cross-sectional survey. This was done by inviting dental academicians throughout India to participate using electronic mail (e-mail), Facebook, Twitter, and WhatsApp.

Subjects and Methods

This Internet-based cross-sectional study was conducted from December 2018 to March 2019. The institutional ethics committee approved the protocol (IRB/2018/212), following which dentists working as full-time academicians were contacted through social media (WhatsApp, Facebook, Instagram, Twitter, and e-mail) to participate in this survey, which assessed job satisfaction as an academician and academics as a primary source of livelihood. All the responses were anonymous and voluntary. The survey questionnaire was divided into the following five segments: (1). Demographics such as age, gender, and marital status (2). Dentistry as a career-degree, academic position, and experience (3). Dentistry as a choice-was dentistry your first choice for a career? Do you have any intention to quit the present job? What is your salary/month? (4). Job satisfaction and dentistry as a source of livelihood. This segment was measured across the following five dimensions: (a). Working conditions (b). Pay and promotional potential (c). Work relationships d. Use of skills and abilities e. Work activities (Appendix) (5). Sense of hopelessness towards the future These five dimensions were scored from "Extremely satisfied" to "Not at all satisfied." The fifth component measured the sense of hopelessness towards the future using the Brief-H-Neg scale. This scale is a two-item questionnaire, including "The future seems to me to be hopeless and I can't believe that things are changing for the better" and "I feel that it is impossible to reach the goals I would like to strive for." Dentists were asked to mark the hopelessness scale in a 5-point scale ranging from 2–10, with 10 being the greater score indicating a higher sense of hopelessness and 2 being the lowest hopelessness score.

Validation of the questionnaire

The job satisfaction and hopelessness scale were checked for validity and reliability among a sample of 30 random dentists

Table 1: Multiple logistic regression to estimate the risk of hopelessness among variables found significant in bivariate Chi-square analysis

Variables	B	WALD	*P*	Exp (B)	Lower	Upper
Marital status						
Married	0.768	4.999	0.025	2.156	1.099	
Single	2.688	2.816	0.093	6.705	1.637	
Widow	1.915		0.097			
Degree						
BDS	0.545					
MDS	1(R)	0.097	1.888	1.915	1.888	
Academian position						
Tutor	0.545	0.829	0.363	1.724	1.534	
Assistant professor	0.772	1.926	0.041	2.163	1.724	
Associate professor	0.581	0.936	0.333	1.789	0.551	
Professor/Head	1(R)					
Ever thought of quitting						
Yes	1.233		0.001	0.281	0.140	
No	0.581	10.846	0.195	0.579	0.233	
May be	1 (R)	1.679				
Income						
<10,000–25,000	<10,000	6.615	0.002	7.750	2.124	
25,000–50,000	10,000–250000	9.540	0.001	12.000	3.346	
>50,000	25000–50000>50,000	8.837	0.001	9.471	2.897	

(pilot survey), who were invited to participate via e-mail. The content validity was assessed by experts and dentists in the pilot trial and was found to be good (Content validity index = 0.83). Criterion validity was measured against the one item global job satisfaction question "How would you rate your level of satisfaction at the present job" on a 5-point scale and was found to be good. The inter-rater reliability was assessed using Cohen's Kappa (κ) and was found to be 0.74.

Statistical analysis

The data were analyzed using the Statistical Package for the Social Sciences software, V21. Illinois, Chicago. The variables other than job satisfaction were analyzed using the Chi-square test for bivariate analysis, and multiple regression was performed using logistic regression (enter method) to estimate the risk. Sense of hopelessness was the outcome variable and the scale was divided into hopeful/hopeless based on the median score of 8 for the categorical analysis. Similarly, the job satisfaction questionnaire was dichotomized into satisfied/not satisfied based on the median score for each dimension, and relationship with hopelessness score was assessed using independent *t*-test, and significance was set at 5%.

Results

Open invitation to respond to the survey was reciprocated by 1,028 academicians working in various dental colleges across India. Of them, the survey was completed by only 1,003 academicians. These survey data were used for analysis. The mean age of participants was 30.7 ± 6.4 years and twice more men (63.7%) than women (34.5%) responded. Regarding academic degree, 22.5% were undergraduates and 76.9% were specialists (6.8% endodontists, 6.5% oral medicine, 8.9% oral surgery, 6.5% oral pathology, 4.9% orthodontics, 7.7% pedodontists, 5.8% periodontists, 19.4% dental public health and 10.1% prosthodontists). Of the respondents, 32.3% were tutors (undergraduates), 42.2% were assistant professors and 20.3% were associate professors and 5.2% were professors/head. Only 46.8% chose academics willingly and 53.2% opted for it as a secure means for monthly income. The bivariate analysis found a significant association among marital status, income, thought of quitting, academic position, and sense of hopelessness ($P < 0.05$). However, an academic degree is a significant predictor for the sense of hopelessness and was included in the logistic regression model but was not found to be significant. Married couples were twice (Adjusted ODD's Ratio [AOR] = 2.1, $P < 0.05$) and single individuals (AOR = 6.7) 7 times more likely to feel hopeless compared to widows being a dental academic in India. Tutors, assistants ($P < 0.05$) and associate professors were twice more likely to report hopelessness compared to professors. The response "Yes" to the thought of quitting was found to be Significantly Valuable (AOR = 0.3, $P < 0.05$) compared to "Maybe." Faculty receiving a pay of INR < 0.05). The relationship between job satisfaction and hopelessness is presented in Table 2. Almost all the factors in all the five dimensions reported hopelessness. The mean score was 8.5 among academics for "not satisfied with their job," and among faculty who reported "job satisfaction" the mean hopelessness score was 5.6. Other than the use of skill and talent, opportunity to learn new skills, independence, periodic change in duties and all other factors had significantly higher mean hopelessness score ($P < 0.05$).

Discussion

The results of our study, unfortunately, portray a sad state of affairs for dentists who are full-time academicians. Of the total 1,028 faculty members who responded to the questionnaire, 751 (73%) reported hopelessness with a score of 8 and above. Married faculty members, assistant professors, and faculty members with an income below INR 50,000/month felt more hopelessness compared to other respondents ($P < 0.05$). In India, part-time faculty comprised almost all the academic posts in the previous decades. Part-time faculty is a "misnomer," the faculty members not only work full time in dental institutions teaching students but also have their own full-time private practice. Hence, their efficiency as a full-time academic is compromised because of personal interests; however, this scenario is slowly changing because of the strict rules for full-time academicians from the DCI. Faculties are being evaluated and promotions have been centralized based on academic accomplishments by their contribution towards peer-reviewed publications per year, participation in educational programs and projects undertaken or guided in a year. In recent years because of the polarized overpopulation of dental colleges in our country, the dental workforce grew without considerations about prospects for job opportunities or new avenues for professional and personal growth for new graduates. The rate of unemployment among Indian dental graduates is at an all-time high, further, they seek employment in insurance sectors and call centers that require the qualification of high school graduation.[7] With regard to the poor prospects for a successful independent career, many resorts to academics for wan of job security and financial stability. Ironically, dental academia fails to be as lucrative as before leading to an all-time low in students wanting to pursue dentistry,[8] and of the few who join dentistry, it is because of the pressure to become a doctor as their admission in medicine was unsuccessful, which creates the vicious circle of dissatisfaction. Another major consideration is the poor quality of standard of many dental institutions in our country that degrades the profession and the career prospects for dental graduates.[9] Majority of the colleges in India are poor in standard and infrastructure as compared to premier institutes in our country and excellent institutions in the west providing holistic dental training. Such institutes deliver poor quality of education leading to poor quality of dental graduates, which leads to poor dental. Academics which in-turn produce poor quality of education, and they are recruited only in colleges poor in quality! This vicious cycle keeps continuing. However, a handful of talented and passionate dental academicians are found in

Table 2: The relationship between five dimensions of job satisfaction and mean hopelessness score using independent t-test

Job satisfaction dimensions	Variables	Answer	n	Mean of hopelessness scale	SD	*P*
Working	Hours	Not satisfied	200	1.97583	1.97583	
	Flexibility	Not satisfied	125	2.72830	2.72830	
	Paid vacation	Not satisfied	211	1.98923	1.98923	
	Location	Not satisfied	112	2.63237	2.63237	
	Salary	Not satisfied	228	2.16089	2.16089	
Pay and promotional potential	Promotion	Not satisfied	9	2.80570	2.80570	
	Oportumities	Not satisfied	180	1.77223	1.77223	
	Job security	Not satisfied	145	2.67971	1.77223	
Work Relationship	Recognition	Not satisfied	257	2.22568	2.22568	
	Co-Worker	Not satisfied	68	2.54667	2.54667	
Use of Skills and abilities	Subordinates	Not satisfied	270	2.25579	2.25579	
	Superiors		55	2.82747	2.82747	
	Use of skill and talent		71	2.41292	2.41292	
	Learn new skills		54	2.87256	2.87256	
	Grant for learning		258	2.41292	2.41292	
	Job responsibilities		67	2.81298	2.81298	
Work activities	Independent		241	2.47162	2.47162	
			84	2.04936	2.04936	
			187	2.47612	22.15271	
			138	2.15271	2.47612	
			192	2.2789	2.2789	
			133	2.789	2.7890	
			205		2.23456	
			120		2.3457	
			213		2.2345	
			112		2.5789	
			212		2.2345	
			113		2.28790	
			113		2.23457	
			267		2.23459	
			218		2.0578	
			107		2.04669	
			208		2.57240	
			107		2.04669	
			2038		2.29394	

every institute who are the pillars of dental education in India. Job satisfaction among the academicians focused only on full-time academics is the need of the hour. Job satisfaction helps them accomplish their own professional goals at the same time working in tandem with the vision and goals of the institute enhancing the quality of dental education on which the future of the graduates depends.[3] Salary and opportunities for promotion seem to be the greatest barriers towards job satisfaction in our findings. Similar findings have been reported by almost all the studies evaluating job satisfaction among academicians.[10,11] Professors and Heads, and some Associate Professors earning more than INR 50,000 rupees/month reported being hopeful as an academic compared to Assistant Professors. This finding contrasts with the findings by Froeschle and Sinkford, who reported that the "intent to remain in academia long term decreases with the number of years in academia." Senior academicians in India already have a fully established dental practice as the main source of income; hence, the greater sense of hope as compared to junior faculties who depend primarily upon the monthly income from the institute.[2] Some of the factors, which affect faculty job satisfaction, include the burnout experienced by them because of workload related to non-academic matters, such as preparing reports for inspections and maintaining records for internal quality assessments. All of these overwhelm the academics that are already entrusted with teaching, clinical and research works pushing them towards underperformance and ultimately dissatisfaction toward work.[12] Salaries of Indian dental academics have no fixed scale and ranges from INR 3000 to more than a lakh per month and it is purely based on experience. Outcome/performance-based income is still in infancy. It was shocking to find that 25% had a salary of lesser than INR 10,000 a month as a tutor and 33% between INR 10,000–25,000 per month as Assistant Professors. Further, the lack of recognition in the form of incentives demotivates people to strive for

excellence and propel them toward disgruntled employees. Universities have reduced their salaries because of diminishing funds to the extent that it seems no longer useful to serve as full-time academic tutor/assistant professor in almost all the private institutes in India and this situation has also been reported by Guskin and Marcy.[13] The lack of promotion is largely affected by the grey academic population who do not quit when it is time to quit, thus barring vacancies for fledgeling academicians. Unlike the government institutes, the age for retirement is not set for private institutions and it is usually understood they serve till voluntary retirement or till they die. Time/hours plays a significant role in job satisfaction, because of the increase in non-academic workload, the number of hours spent on actual productive work is affected leading to dissatisfaction, which hinders promotion and incentives.[12,14] Some of the factors which frustrate dental academicians are administrative barriers and burdens, political and financial frustration in the institute, lack of skills development, and funding for scholarly activity have been reported in a survey among US dental schools.[2,15] Similar findings have been reported by our faculties who feel that working as an academician in institutes with poor working conditions, poor pay and promotional activities, acrimonious environment with peers, seniors, and colleagues, not able to use their skills and abilities to its fullest potential and nature of work responsibilities is hopeless The willingness/thought to quit the academic position and its relationship to the feeling of hopelessness provided an intriguing finding. People who responded yes had lower odds of being hopeless as compared to no and maybe. This finding could summate the overall impact of the academic job on their personal and professional fronts. To the best of our knowledge, no study has evaluated the relationship between marital status, thought of quitting, and hopelessness among dental academicians. Married males reported greater hopelessness than females as they were the primary bread-winner of the family. This forlorn feeling arises from the feeling of having minimal returns after investing 10 lakhs (1 million) for under graduation and 30 lakhs for post-graduation. Several studies have evaluated the job satisfaction among dentists using various questionnaires, but no one has reported such an in-depth assessment of the role of the institution at the micro-level and this is merit for our study. Moreover, the national sample increases the generalizability to almost all the dental institutions in our country. The role of salary with regard to government and private institutions was not assessed as the representation from public sector institutions was very less, but almost all of them were satisfied with respect to salary as the government unlike private institutions regulates them and this could be considered a limitation. The response to the questionnaire compared to the magnitude of the dental force in our country is minimal; however, it was representative of the entire dental academic fraternity in India. The results of our study should serve as a warning beacon to the regulators of dental education in India and they should be sensitive towards the feeling of dental faculty and towards their fruitful career in dental institutions. Only 5% of the total dental workforce is employed by the public sector;[7] hence, the government should increase the number of the dental workforce in the rural districts to improve job opportunities, reduce polarization of workforce and maintain quality. The quality of private dental institutions should further be monitored including the salary paid, work culture, and benefits due for the faculty at the micro-level let alone the paperwork filed. Faculties should also endeavour towards self-improvement and work counter-intuitively to disprove the age-old saying "those who can, do; those who can't, teach."[12]

Conclusion

The dental faculties at tutor, assistant professor and associate professor levels are highly dissatisfied as a teacher and have reported hopelessness regarding their future as fulltime academicians. This population encompass 90% of a dental academia's workhorse. In dentistry, job satisfaction plays a key role in this era of academic metamorphosis as they are instrumental in nurturing and training future dentists and poor satisfaction may affect the quality of the students from the institute. Job satisfaction is a two-way street; the institution should commit to providing a favorable environment for the academicians to help attain their full potential in teaching, clinical and scholarly activities to improve the dental education experience of the students holistically and in return faculty should strive to empower the institute through their commitment and hard work into a center of excellence which would ultimately benefit them in the long run.

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