

# Job Satisfaction and its Influential Factors in Dental Academic Members in Tehran, Iran

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## Abstract

**Background:** Assessment of job satisfaction of the faculty members and its underlying factors may increase career fulfillment and raise the educational and research productivity, leading to higher quality of dental services at the community level, ultimately improving public oral health status. **Aim:** This study assessed job satisfaction and its influential factors in dental academic members in Tehran. **Subjects and Methods:** The job satisfaction level of 203 faculty members was assessed using a Likert scale questionnaire from 0 to 4, with 4 representing very satisfied and 0 not at all satisfied. The analysis of variance was used to compare the responses among dental faculty members of three different universities. The impact of age, gender, academic rank, employment status and the date of employment on the overall faculty job satisfaction was identified by multiple linear regression analysis. **Results:** The mean professional satisfaction score among faculty members was 1.5 (0.5) out of four. Among the studied underlying factors, only the date of employment was seen to have a statistically significant impact on the faculties' overall job satisfaction ( $P=0.05$ ). There was no difference in job compensation observed between the three dental faculties. Dissatisfying aspects of the academic work included educational and research policies, monetary strategies, quality of leadership and administration, promotion and tenure policies, job security, educational environment, equipments, and facilities. The only satisfying factor was the interaction between faculty colleagues and students. **Conclusion:** Faculty members of Tehran Dental Schools are dissatisfied with their work environments in Tehran Dental Schools. Issues such as salary and remuneration, facilities, equipments, promotion and tenure policies are strongly believed to account for the dissatisfaction.

**Keywords:** Academic members, Dental, Job satisfaction

## Introduction

Occupational satisfaction has been defined as emotional feeling toward one's job. According to dual-factor theory of Herzberg; motivational factors such as recognition, work tasks, responsibilities and hygienic factors such as job security, working conditions or salary affect job satisfaction.<sup>[1]</sup> Career

fulfillment is associated with various factors at the work environment. Thus, working conditions and interpersonal relationships play an important role in its shaping.<sup>[2]</sup> Job satisfaction can lead to better organizational commitment of employees, which in turn can enhance the overall organizational success and its progress and lowers the employees' intentions to leave the organization. Dissatisfied individuals are likely to leave the organization and as a result staying workers would show poor working performance and might sabotage the work and quit their jobs.<sup>[3]</sup>

Personal determinants such as age, race, gender, educational level, tenure and organizational factors such as nature of work, remuneration/pay, supervision, promotion opportunities, relationships with co-workers, job status and job level have

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been found to contribute to job satisfaction and organization commitment.<sup>[4]</sup>

Universities, being the most important centers for educational and research activities, recruit faculty members, who in turn form the most essential components of the educational system and main basic elements of community development. Since the quality of public health care and the future of dental and medical educational systems are directly dependent on academic job fulfillment at these faculties, promoting occupational motivation and satisfaction is essential to retain the work force. Achieving a productive, inclusive, and satisfying academic work atmosphere is merely attainable by recognition of job incentive factors. This leads to a vivid professional environment sustaining productive faculty members.<sup>[5]</sup> Dental faculty members serve as role models for future dentists, hence universities should support and encourage their academic members to achieve professional satisfaction leading to higher quality of teaching, which ultimately improves quality of treatments and the public oral health status.

Previous studies conducted in different countries on job satisfaction of dental faculty members have shown varied results. According to Shigli *et al.* most of the prosthodontic faculty members in India were satisfied with teaching and service items, but were rather dissatisfied with the financial and academic support for preparing presentations and attending conferences.<sup>[6]</sup>

Rogér *et al.* revealed that some factors such as mentorship and student interaction, opportunities for scholarship (research and discovery) and job diversity had positive influences; and bureaucracy/administrative burdens and barriers, time commitment and financial frustration had negative influence on job satisfaction of dental academic members.<sup>[7]</sup>

In a study conducted by Haden *et al.*, faculty members from 49 US dental schools rated their satisfaction as very satisfied to satisfied with their dental school and working place.<sup>[8]</sup>

No such research has been carried out on the job satisfaction at Tehran dental faculties. Therefore, this study was designed to determine the level of job satisfaction and factors influencing it for dental faculty members in Tehran.

## Subjects and Methods

All faculty members of the three dental schools in Tehran (Tehran and Shahed are public universities, but Islamic Azad is private university) have been invited to take part in this cross-sectional study in 2010. A questionnaire driven from valid and reliable "internal evaluation" form from Iran's Ministry of Health and Medical Education was used in this study. Areas of general job satisfaction comprising educational policies, salary and remuneration, quality of administration, quality of staff and

personnel, tenure and promotion policies, job security, work environment, interpersonal relationship, equipments, research policies and interaction with students were selected. Initial questionnaire was pilot tested with a sample of 20 Tehran Dental School faculty members prior to the study in order to evaluate the validity and reliability of the questionnaire. The faculties' corrective comments on different parts of the questionnaire were summarized and applied wherever necessary. The questionnaire was revised for its content validity using a nominal group technique. Consensus for each question was defined as at least 80% agreement and face validity was examined by a methodologist and four members of dental school.

The Cronbach's alpha coefficient of internal consistency reliability for the tested questionnaire was 0.8, which was acceptable. The final questionnaire was anonymous and had two parts. Part one included demographic questions addressing gender, age, date of employment, academic rank, and employment status. Part two included questions about general job satisfaction, educational policies, salary and remuneration, quality of administration, quality of staff and personnel, tenure and promotion policies, job security, work environment, interpersonal relationship, interactions with students, equipments and research policies to measure the faculty fulfillment. Questions were in 5-point Likert scale coded from 0 to 4 according to whether it was "not at all," "a little," "somewhat," "high" and "very high," respectively.

Sampling was conducted by census method. The purpose of the study was explained for the participants. They were told that the participation was voluntarily and their individual responses would remain confidential.

All faculty members in the three dental schools were asked to fill the questionnaires. The questionnaires were distributed by a dental student, in the last year of undergraduate training. In order to raise the response rate, several attempts were made to ensure that all the completed questionnaires were collected. The filled questionnaires were collected in at a pre-determined time point from certain staff in each department.

Statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS) for Windows Version 16.0 (Chicago, IL, USA). To assess the impact of demographic variables (age, sex, academic rank, date of employment, employment status) on the job satisfaction scores, backward multiple linear regressions were used.

Furthermore, the overall job satisfaction of faculty members of the three different dental faculties was statistically analyzed by analysis of variance (ANOVA). Type I error rate for ANOVA analysis was set as 0.05 and for multiple linear regression analysis at 0.1.

## Results

Two hundred and three dental faculty members out of a total of 294 took part in this study, making a response rate of 69% (203/294). Table 1 shows the demographic and characteristic information of the participants.

Regression tests showed that among all the personal and professional variables, only the date of employment had an impact on the overall job satisfaction of faculty members [Table 2].

Quantified on a scale of 0-4, with 4 representing very high and 0 indicating very low satisfaction, the mean satisfaction score was 1.5 (0.5) revealing higher frequencies in “not at all” and “a little” and “somewhat” answers compared to “high” and “very high” ones. There was no significant difference in the level of overall occupational satisfaction between the three dental schools ( $P = 0.11$ ) and between public and non-governmental dental faculties ( $P = 0.29$ ).

Difference existed in the areas of quality of administration and leadership ( $P < 0.001$ ), promotion policies ( $P < 0.01$ ), department environment and educational facilities ( $P = 0.03$ ), salary and remuneration ( $P < 0.001$ ) and equipments ( $P < 0.001$ ) among the three faculties.

The highest satisfaction rate among all members was scored for interaction with coworkers 2.3 (0.6) and lowest score was for rewarding and acknowledgement 0.7 (0.6) [Table 3]. In educational and research policies, quality of staff and personnel, quality of administration, tenure policies, job security and work environment only “somewhat” to “a little” satisfaction was reported by the faculty members. In the present study, the greatest dissatisfactions was reported in the fields of salary and remuneration, promotion policies and acknowledgement and recognition, which were rated as “not at all” to “a little.”

## Discussion

The results of our survey indicated that faculty members of Tehran Dental Schools were “somewhat satisfied” with their general occupational conditions. In general, participants showed a relatively higher satisfaction about their interaction with colleagues and students compared to other surveyed fields. The greatest dissatisfactions for the dental academicians were in the fields of salary and benefits, promotion policies and acknowledgement and recognition.

In contrast to our results, the majority of US dental faculty members in 2007 were very satisfied to satisfied with their dental school overall and their department.<sup>[8]</sup>

In this study, the most important factors related to occupational dissatisfaction were associated with salary and remuneration. Although, salaries have increased in recent years in Iran, the

**Table 1: The demographic and characteristic information of the respondents**

Variable	Number (%)
University	
Shahed	35 (17.2)
Azad Islamic	70 (34.5)
Tehran	98 (48.3)
Gender	
Male	90 (44.3)
Female	67 (33.0)
Non-respondent	46 (22.7)
Age	
20-29	3 (1.5)
30-39	45 (22.2)
40-49	94 (46.3)
≤ 50	47 (23.1)
Non-respondent	14 (6.9)
Employment status	
Tenure*	98 (48.3)
Non-tenure track**	64 (31.5)
Tenure review***	23 (11.3)
Non-respondent	18 (8.9)
Academic rank	
Professor	2 (1.0)
Associate professor	32 (15.8)
Assistant professor	144 (70.9)
Lecturer	9 (4.4)
Non-respondent	16 (7.9)
Date of employment	
2006-2010	50 (24.6)
2001-2005	35 (17.2)
1996-2000	27 (13.3)
1991-1995	29 (14.3)
Before 1991	28 (13.8)
Non-respondent	34 (16.8)

\*Tenure: Is used to indicate that an academic university member has a permanent position, \*\*Non-tenure track: Non-tenure track academic university members are employed by the school on a year-to-year, or fix-term contracts, sometimes they are not eligible for a permanent contract, \*\*\*Tenure review: Is an evaluation process conducted to determine whether or not an academic should be granted tenure

**Table 2: Impact of demographic factors and employment status of participants on job satisfaction scores**

Variable	Standard coefficient beta	T	P value
Age	0.04	0.32	0.75
Academic rank	0.06	0.60	0.55
Employment status	0.10	1.05	0.26
Gender	0.13	1.50	0.13
Date of employment	0.17	1.96	0.05

current dissatisfaction may suggest that the rise does not cover the living costs of those surveyed. This may be the reason why the majority of them scored their satisfaction towards remuneration factors as “not at all” or “a little” with a mean score less than one out of four, which was significantly lower in Islamic Azad university (non-governmental university) compared to the other two public universities.

**Table 3: Mean satisfaction scores for each predictive factors**

Area	University mean (SD)			Average standard scores mean (SD)	P value
	Public		Private		
	Tehran	Shahed	Azad		
Educational policies	1.6 (0.6)	1.7 (0.4)	1.6 (0.5)	1.6 (0.6)	0.47
Research policies	1.4 (0.6)	1.4 (0.5)	1.5 (0.7)	1.4 (0.6)	0.72
Quality of administration and leadership	1.8 (0.7)	2.2 (0.6)	1.6 (0.7)	1.8 (0.7)	<0.001
Team performance	1.8 (0.6)	1.9 (0.8)	1.7 (0.7)	1.8 (0.7)	0.31
Employment policies	1.2 (0.8)	1.2 (0.6)	1.4 (0.7)	1.3 (0.7)	0.24
Promotion policies	0.8 (0.7)	1.0 (0.7)	1.2 (0.8)	1.0 (0.8)	<0.01
Job security	1.4 (0.7)	1.6 (0.6)	1.6 (0.9)	1.5 (0.8)	0.47
Searching and learning equipment and related facilities	1.2 (0.6)	1.2 (0.5)	1.0 (0.5)	1.1 (0.6)	0.03
Equipment, consumable materials and budget	0.8 (0.7)	1.7 (0.6)	1.0 (0.6)	1.0 (0.7)	<0.001
Interactions with colleague	2.1 (0.6)	2.3 (0.7)	2.3 (0.6)	2.3 (0.6)	0.12
Interaction with students	2.0 (0.9)	2.2 (0.9)	2.0 (0.9)	2.0 (0.9)	0.56
Rewarding and recognition	0.7 (0.6)	0.8 (0.6)	0.6 (0.6)	0.7 (0.6)	0.36
Salary and remuneration	1.1 (0.1)	0.9 (1.0)	0.4 (0.6)	0.8 (0.8)	<0.001
Level of job satisfaction	1.4 (0.5)	1.6 (0.4)	1.4 (0.5)	1.5 (0.5)	0.11

SD: Standard deviation

The importance of salary and work environment on job satisfaction has been discussed by other studies.<sup>[8-10]</sup> The monetary issue and salary have been described as the most negative aspect of the work environment.<sup>[11,12]</sup> In addition, salary has been reported as the most prominent reason for the dental faculty members leaving the academia and entering the private practices.<sup>[12,13]</sup>

In the present study, the level of respondents' satisfaction on "job security" was low affirming inadequate job security in their work places. In a study conducted at three teaching hospitals in Karachi, the majority of doctors were not satisfied with their jobs and lowest scores were reported for pay and benefits, safety and security of job and workload, which was consistent with our results.<sup>[5]</sup> As stated by an American investigation, job security is one of the essential factors in occupational fulfillment, recruitment and retention of workforces.<sup>[11]</sup> Inadequate job security in our results may be rooted in the employment status as only about half of those surveyed were on tenure track with the remaining, working with temporary or fixed time contracts. However, Haden *et al.* showed that the greatest dissatisfaction within the dental school environment was expressed by tenured associate professors. This may have been related to the feeling of "being stuck" in their careers.<sup>[8]</sup>

Inadequate educational facilities and budget deficits were reported marked shortcomings in this survey. A general dissatisfaction was observed regarding the disposable materials and other equipments available in pre-clinical and clinical departments and audiovisual facilities in classrooms. However, the faculty members of Shahed dental school were more satisfied with the existing educational facilities. It should however, be noted that after the completion of this study, the Dental School of Tehran University of Medical Sciences moved to newly constructed building with more

equipped departments, which could affect future assessments about the satisfaction of its members. We also found a limited satisfaction with research allocated resources, funding and facilities in regards to publication and research activities. Most of the prosthodontic academic faculty members in India gave neutral responses regarding financial support for research and institutional research rewards.<sup>[6]</sup>

The majority of the participants were not pleased with the current promotion and tenure processes and believed that their rights were overlooked, feeling to be judged by promotion requirements that are hard to achieve or incongruent with their present duties. According to our results merely 2% of those surveyed were highly satisfied with current rules.

Assessment of promotion and tenure requirements at US dental schools reflect the trend to increase diversity or flexibility in academic standards and to determine additional opportunities for faculty members' promotion and tenure.<sup>[14]</sup>

In the present study, respondents stated that the administration was "a little" to "somewhat" caring and supportive and they did not think of balancing the power, spending time with his/her team and consulting with their staff in making decisions. It is also notable that four in five faculty members were dissatisfied with the level of autonomy in their jobs. In a research performed by Chung *et al.* autonomy had a great impact on the satisfaction of faculty members.<sup>[15]</sup>

The role of the chairman in the occupational fulfillment of staff and faculty members has been stated in several surveys.<sup>[8,12]</sup> A successful administration encourages others to act more efficiently to achieve career advancements and provides opportunities for professional development.<sup>[8,9,15]</sup> Due to the important impact of the administration on the satisfaction and longevity of the academicians and the low score it obtained



in our survey, special attention should be paid to the surveyed dental schools on this area.

About half of those surveyed, postulated that educational policies are not comprehensive or explicit and the majority of them believed that the faculties' own rights have been overlooked in the educational legislation.

An appropriate work environment relates to employee's job satisfaction and is under the influence of various factors such as administration, facilities, mentorship and professional relations.<sup>[9]</sup> Whereas the compensation provided for dentists at the academia is considerably lower than at private practice, the variety of work and the social and intellectual interaction with colleagues in the academia offset the financial sacrifice.<sup>[9,12]</sup>

The interpersonal relationships and interactions among colleagues and with students had the highest satisfaction rates in the present study, which was in accordance with other studies.<sup>[9,16]</sup>

We have noticed the impact of the "date of employment" or in other words the years at service in academic work on the overall occupational satisfaction. This may be explained by the fact that new faculties in the first years of their appointments experience intense pressure and workload. Lack of collegial support, isolation, slow career advancements and time constraints are the most significant problems faced by new faculties.<sup>[9,17]</sup> A supportive comfortable atmosphere that welcomes all members with flexible work schedule makes a positive work environment for new members.<sup>[12,18]</sup>

In our study, gender difference was not a significant factor in job satisfaction. In contrast to our results, Haden *et al.*, showed a significant influence of gender with the overall balance of work and other aspects of life. Males chose "satisfied" and "very satisfied" more often than females did.<sup>[8]</sup>

In the present study, we have assessed the job satisfaction of faculty members working in Tehran Dental Schools, however, our sample may not be representative of all Iranian dental academicians. Therefore, we suggest further studies in other dental schools to evaluate their members' satisfaction and its impeding factors. We have used a questionnaire for this purpose. Self-reporting of satisfaction is widely used as an appraisal technique, which is a subjective rather than an objective method in evaluating the impact of intrinsic and extrinsic factors on the occupational fulfillment.<sup>[19]</sup> As many external and internal factors may change over time, we propose the use of longitudinal research methods in future investigations to determine how different factors may affect the overall job satisfaction in an academic environment.

According to our results there are various dissatisfying factors in Tehran Dental Schools, which may disappoint the tenured faculty members or challenge the recruitment of new workforces. Displeased academicians may leave the academic

work or even worse, may stay and degrade work environment and productivity.<sup>[12,15]</sup> Thus, providing a professional environment, which sustains the current efficient members and encourages enrollment of new vigorous and creative junior faculty is essential for an institution's viability. Considering both positive aspects of academic work and negative environmental or financial factors, it should be a priority for all administrations in dental schools to make a positive perception among the academicians. Due to dissatisfaction among dental faculty members of Tehran universities, immediate steps should be taken to improve the working environment and enhance job satisfaction.

## Conclusion

On the whole, demographic variables such as gender, employment status, and academic rank had no significant impact on the overall job satisfaction among faculty members and years of employment were the only factor to affect professional fulfillment.

A considerable dissatisfaction existed among all of the respondents in areas of salary and remuneration, quality of personnel and staff, quality of administration, job security, promotion and tenure policies, educational and research strategies and facilities. Interaction with other colleagues was the only point for a moderate satisfaction.

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