Are Dentists Happy? A Study among Dental Practitioners in Coastal Andhra Pradesh Using Subjective Happiness Scale

Abstract

Introduction: The role of dental professionals in the society is vital. This profession allows the flexibility to balance a professional and personal life. Practice of dentistry at times is quite stressful, and stress impedes happiness and subjective well-being. Several studies have reported about stress among dental professionals and their various effects; however, studies evaluating the level of happiness (happiness index) among dentists are few and lack in this geographic region. Objectives: The present study was conducted to assess the subjective happiness level among dental professionals. Materials and Methods: A cross-sectional study was conducted among 194 dentists in Andhra Pradesh, India. A questionnaire measuring dimensions of professional satisfaction by Subjective Happiness Scale was used to assess the happiness level. The results were expressed in percentages, means, and mean rank. Independent samples nonparametric tests (Mann–Whitney U-test and Kruskal–Wallis test) and multivariable analyses were used to assess the determinants of happiness. Results: The mean happiness index of the respondents was 21.71 (0.26 standard error). Overall 67% of the respondents had an above average happiness score. Higher happiness score was found to be significantly associated with age, postgraduate degree, male gender, type of professional attachment, duration of practice, urban location of practice, and spouse employment status in univariate analysis. However, multivariable analysis showed association with type of professional attachment only. Conclusion: Although dentistry has been recognized as a stressful profession, majority of the dentists under study had a happiness score above the mean, and the level of satisfaction was influenced by various sociodemographic factors.

Keywords: Dental professional, job satisfaction, subjective happiness, workplace

Introduction

Dentistry is a rewarding profession that combines art and science, personal communication skills, and high ethical standards.[1] This profession is a social interaction between helper and recipient in their limited job setting and with personal characteristics.[2] Dental professionals act as pivots in society for the prevention and treatment of oral diseases. They have a flexibility to balance their professional and personal lives, opportunity to be their own bosses and to earn well. Nevertheless, dentists face various ergonomic problems and certain work-related stress, and stress impedes happiness and subjective well-being.[3] Significant stressors affect their personal and professional lives[2,4] and may lead to high incidence of cardiovascular disease, ulcers, colitis, hypertension, lower back pain, eye strain, marital disharmony, alcoholism, drug addiction, mental depression, and suicide.[3]

Happiness is a mental or emotional state of well-being characterized by pleasant emotions ranging from contentment to intense joy and it refers to how people experience the quality of their lives and includes both emotional reactions and cognitive judgments.[5] Furthermore, it is a major indicator of subjective well-being. Research on happiness and positive psychology have demonstrated the effect of positive psychological variables on successful life, enhancing human functioning, and increasing happiness.[6] One of the most essential constructs related to positive well-being is happiness.[7] Research also has suggested that increasing happiness has multiple benefits. Lyubomirsky has compiled research findings documenting that happiness is associated with multiple positive outcomes including better performance ratings at work, higher salaries, and improved health.[8,9]

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There are quite a good number of studies reporting occupational hazards, stress among dental professionals and their various effects but studies evaluating happiness among dentists are limited. Hence, the present study was conducted to assess the subjective happiness levels among dental professionals in India.

Materials and Methods

Study design

This cross-sectional study was conducted from August 2014 to November 2014 to assess the subjective happiness among dental professionals in the coastal districts of Andhra Pradesh, India.

Selection of participants

The list of dentists who were enrolled in the Indian Dental Association and practising in the coastal districts of Andhra Pradesh was obtained from the Indian Dental Association (Andhra Pradesh State Branch) office at Visakhapatnam. Among them, 230 dentists were selected by convenient sampling and were approached to participate in the survey.

Inclusion criteria

Dentists who were present in their workplace on the day of the survey were included.

Questionnaire

Subjective happiness was assessed with the Subjective Happiness Scale (SHS). It consists of four items rated on a 7-point Likert scale, where participants had to indicate whether they agreed or disagreed with the statements. SHS score was computed by adding responses to the four items so that scores can range from 4 to 28. Previous studies have shown that the SHS has good to excellent internal consistency (0.80–0.88), test-retest reliability (0.79), and convergent and discriminant validity across different languages, countries, and cultures.

Statistical analysis

The results were expressed in percentages, means, and median. Independent t-test was used for continuous variables. Mann–Whitney U-test and Kruskal–Wallis test (with Conover test) were used to evaluate the significant difference in happiness scores between the variables. Multivariable regression model was used to find the determinants of happiness. $P < 0.05$ was considered to be significant. Collected data were analyzed using suitable statistical software (SPSS, Inc., Chicago, IL, USA, version 20 and Stata 14 IC, StataCorp LLC, 4905 Lakeway Drive, College Station, Texas 77845, USA).

Ethical clearance and informed consent

Ethical approval for conducting the survey was obtained from the Ethical Committee of Sree Sai Dental College and Research Institute. All participants were explained about the purpose and process of the study, and informed written consent was obtained. Those unwilling to participate were not included in this study.

Results

Out of the 230 dentists, who were approached to participate in the survey, 194 agreed and completed the questionnaire with a response rate of 84.3%. Distribution of the study participants according to age, gender, qualification, type of profession, duration of practice, location of practice, and spouse employment status is presented in Table 1. The mean age of the respondents was 35 (0.57 standard error [SE]) years, and mean age of male dentists was significantly higher than the females (36.9 vs. 29.6; $t = 6; P < 0.001$). Majority of the participants were males (73.7%), belonged to age group 23–33 years (48.5%) and were full-time practitioners (84%). The number of dentists with BDS and MDS qualification was almost equal (90 and 89, respectively). Most of them were located in urban areas (83%) and were clinical practitioners (66%) having experience <5 years (47%). Most of the spouses of the respondents (49%) were also dental practitioners.

Subjective happiness level

The mean subjective happiness score of the respondents was 21.7 (0.26 SE). Majority of the respondents (67%; $n = 114$) had happiness score of 22 or more. There was a statistically significant difference in happiness score among different variables such as age group, gender, qualification, type of profession, location and duration of practice, and spouse employment status [Table 1].

Happiness and age

There was a positive correlation between happiness index and age [Figure 1] with Spearman’s rank correlation coefficient of $r = 0.251$ ($P < 0.01$). Happiness score was

![Figure 1: Correlation between happiness index and age of dental professionals under study](image-url)
Table 1: Distribution of happiness score in the study population

| Characteristics                        | n (%) | Mean rank | Statistical significance |
|----------------------------------------|-------|-----------|--------------------------|
| Gender                                 |       |           |                          |
| Male                                   | 143 (73.7) | 104.24    | Z=2.81; P=0.005          |
| Female                                 | 51 (26.3)  | 78.59     |                          |
| Age group                              |       |           |                          |
| 23–33                                  | 94 (48.5)  | 83.7<sup>b</sup> | χ²=11.6; df=3; P=0.009   |
| 34–43                                  | 62 (32.0)   | 107.51<sup>a</sup> | *P=0.004                 |
| 44–53                                  | 34 (17.5)   | 115.97<sup>n</sup> | bP=0.002                 |
| >54                                    | 4 (2.0)     | 109.75    |                          |
| Qualification                          |       |           |                          |
| BDS                                    | 90 (46.4)   | 82.38<sup>a</sup> | χ²=17.7; df=2; P=0.0001   |
| Diploma                                | 15 (7.7)    | 115.84<sup>b</sup> | *P=0.000                 |
| MDS                                    | 89 (45.9)   | 79.37<sup>ab</sup> | bP=0.007                 |
| Type of profession                     |       |           |                          |
| Clinician                              | 128 (66.0)  | 86.12<sup>b</sup> | χ²=15.7; df=2; P=0.0004   |
| Academician                           | 42 (21.6)   | 117.61<sup>a</sup> | *P=0.0006                |
| Both                                   | 24 (12.4)   | 123.02<sup>ab</sup> | bP=0.0012                |
| Type of practice                       |       |           |                          |
| Full time                              | 163 (84.0)  | 99.15     | Z=0.94; P=0.345          |
| Part time                              | 31 (16.0)   | 88.82     |                          |
| Years of practice                      |       |           |                          |
| <5                                     | 91 (46.9)   | 81.87<sup>ab</sup> | χ²=13.97; df=3; P=0.003   |
| 5–10                                   | 50 (25.8)   | 109.22<sup>a</sup> | *P=0.002                 |
| 10–15                                  | 36 (18.6)   | 116.71<sup>b</sup> | bP=0.0007                |
| >15                                    | 17 (8.8)    | 106.00    |                          |
| Location of practice                   |       |           |                          |
| Urban                                  | 161 (83.0)  | 102.02<sup>ab</sup> | χ²=6.66; df=2; P=0.036    |
| Semi-urban                             | 21 (10.8)   | 80.4<sup>a</sup> | aP=0.04                  |
| Rural                                  | 12 (6.2)    | 66.75<sup>b</sup> | bP=0.01                  |
| Mode of income                         |       |           |                          |
| Only dental practice                   | 176 (90.7)  | 98.59     | χ²=1.23; P=0.214         |
| Dental practice with Alternate business| 18 (9.3)    | 81.50     |                          |
| Spouse employment status               |       |           |                          |
| No spouse                              | 6 (3.0)     | 96.58<sup>a</sup> | χ²=12.17; df=5; P=0.03    |
| Dental practitioner                    | 95 (49.0)   | 95.51<sup>b</sup> | *P=0.05                  |
| Medical practitioner                   | 24 (12.4)   | 92.54<sup>a</sup> | bP=0.005                 |
| Government job                         | 15 (7.7)    | 117.07<sup>d</sup> | *P=0.018                 |
| Private job                            | 11 (5.7)    | 50.32<sup>abcde</sup> | *P=0.001                |
| Homemaker                              | 43 (22.2)   | 110.05<sup>c</sup> | *P=0.0007                |

highest in the 44–53 years age group and least in the 23–33 years age group. There was statistically significant difference in the score between the youngest age group and other groups (P = 0.009) except the oldest group (>54 years).

**Happiness and gender**

Males were found to have higher happiness score when compared to females, and this difference was found to be statistically significant (z = 2.81; P = 0.005).

**Happiness and qualification**

Participants with MDS qualification were found to have higher happiness score when compared to those who have BDS (P < 0.0001) and Diploma (P = 0.0077) qualifications.

**Happiness and type of profession**

Happiness index was significantly lower among dentists who were only clinical practitioners as compared to their counterparts who were either purely academician (P = 0.0006) or who were engaged in both academics and clinical practice (P = 0.0012), the last group being the happiest ones.

**Happiness and duration of practice**

Mean happiness score was highest in case of dentists with 10–15 years of practice (22.75) and least among
those having <5 years of practice (20.61), the latter differed significantly from those practicing for 5–10 years \( (P = 0.002) \) and 10–15 years \( (P = 0.0007) \). There was no significant difference in the mean score between other groups.

Happiness and location of practice

Happiness among participants practising in urban areas was significantly higher than those in semi-urban \( (P = 0.04) \) and rural \( (P = 0.01) \) areas.

Happiness and spouse employment status

Happiness score was found to be more among dentists whose spouses were either government employees or homemakers and was least in those with their spouses employed in private firms. There was a significant difference in happiness scores among dentists with different spouse employment status \( (P < 0.05) \).

Determinants of happiness score

Type of profession (only clinician/only academician/both clinician and academician) significantly determined the happiness of dental professionals in multivariable analysis. About 13% of variability in the happiness score was explained by the regression model \( (R^2 = 0.129) \) [Table 2].

Discussion

The objective of this study was to assess happiness level among dental professionals and its relation with various other factors. To the best of our knowledge, this study was the first of its kind. Happiness among dental professionals has never been reported in peer-reviewed literature so far. In our study, it was observed that majority of the dental professionals were subjectively happy in their life. Happiness was more among higher age group dentists (highest in the 44–53 years age group) as compared to those who freshly started their career. This was in agreement with the findings of Baran who reported that those in the 50–59 age group showed higher levels of satisfaction as compared to those in the 30–40, 40–50, or 60–70 age groups \( (P = 0.008) \).[14] Happiness was also found to be highest among those who were practising for 10–15 years.

Most of the dentists in this study were males (73%), which supports findings of other studies that dentistry is practised mostly by males in India[11] and also in western countries.[12] Happiness score was also higher among males, and the finding was in agreement with the finding of Myers and Myers.[12]

Happiness was more among dentists with a postgraduate degree when compared to those with a graduate or a diploma degree. This was in accordance with the findings of Jain et al.[10]

Practising dentists who were also engaged in teaching in dental colleges were happier than those who were either fully engaged in teaching profession or who were doing only private practice. However, a study by Pandita et al. reported that full-time clinicians were more satisfied than part-time dentists.[11]

In India, about 75% of dentists are practising in urban areas[13] and it was almost similar to the findings in our study (83%). Happiness was also more among those practising in urban areas; however, Pandita et al. found no significant association between professional satisfaction and the geographic location of practice.[11] In our study, we assessed the association between dentist’s happiness score with the employment of their spouses and it was found that happiness was higher among dentists whose spouse was either a homemaker or a government employee.

Limitations

Since it was a cross-sectional study, evaluation of temporality and causality of the observed relationships was a limitation. Generalization of findings would be difficult due to convenient sampling and associated selection bias. Besides, exclusive reliance on self-reported rating scales and psychosocial and professional characteristics might have raised the issue of measurement error, related to systematic positive or negative response tendencies.

| Coefficient | SE | t | Significant | 95% CI |
|-------------|----|---|-------------|-------|
| Gender | −0.3872124 | 0.6371361 | −0.61 | 0.544 | −1.644154−0.8697297 |
| Qualification | −0.1622398 | 0.466033 | −0.35 | 0.728 | −1.08163−0.7571501 |
| Type profession | 1.257142 | 0.4006107 | 3.14 | 0.002 | 0.4668167−2.047466 |
| Duration | 0.4391485 | 0.4126532 | 1.06 | 0.289 | −0.3749337−1.253221 |
| Location | 0.8441669 | 0.473087 | 1.78 | 0.076 | −0.777473−0.891393 |
| Spouse employ | −0.0625991 | 0.1716802 | −0.36 | 0.716 | −0.4012499−0.2761317 |
| Age group | 0.2363194 | 0.520363 | 0.45 | 0.654 | −0.7929528−1.260191 |
| Constant | 20.5705 | 1.617388 | 12.72 | 0.000 | 17.37971−23.76128 |

| Model | Sum of squares | df | Mean square | F | R² | Significant |
|-------|----------------|----|-------------|---|----|-------------|
| Regression | 343.417 | 7 | 49.060 | 3.943 | 0.129 | 0.0005 |
| Residual | 2314.418 | 186 | 12.443 | | | |

*Dependent variable: Happiness score. Predictors: Constant, spouse_employ, location, type_profession, gender, qualification, duration, age_groups. CI=Confidence interval, SE=Standard error
Conclusion

This study highlights the subjective happiness among the dentists. Various factors such as age, postgraduate degree, male gender, full-time clinician, duration, and urban area of practice were found to be associated with increased happiness score. Multivariable regression analysis showed that type of profession (both clinician and academician) significantly determined the happiness score; however, more longitudinal studies are needed to corroborate this finding. The issue of professional satisfaction among the practising dentist needs to be addressed in society to increase the level of happiness, which will eventually improve the quality of service rendered by them.

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Conflicts of interest

There are no conflicts of interest.

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