



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

OCCUPATIONAL STRESS, BURNOUT, AND JOB SATISFACTION IN DENTAL PRACTITIONERS.

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ABSTRACT

Background:

INTRODUCTION

Occupational stress and burnout are increasingly recognized as significant challenges in the dental profession, affecting clinicians' mental well-being, job satisfaction, and quality of patient care. Academic and private dental practitioners experience different work environments, which may influence their perceptions and coping strategies related to occupational stress.

Dentistry is widely regarded as one of the most stressful health professions due to its demanding nature, time pressure, precision-oriented work, patient anxiety, and ergonomic challenges. Dental practitioners are frequently exposed to physical strain, psychological stress, and emotional exhaustion, which can lead to burnout, reduced job satisfaction, and compromised quality of care. Occupational stress not only affects dentists' mental and physical health but also influences their professional efficiency and long-term career sustainability.

Burnout involves emotional exhaustion, depersonalization, and diminished personal achievement. In dentistry, it leads to lower motivation, poorer clinical judgments, and higher chances of errors. Job satisfaction, conversely, signals strong professional health and ties directly to productivity, care quality, and career retention

Academic and private dental practitioners operate in different work environments. Academic dentists often balance teaching, research, and clinical responsibilities, while private practitioners face business management pressures, financial responsibilities, and patient volume challenges. These differences may influence how stress, burnout, and job satisfaction are perceived and managed.

Assessing knowledge, attitudes, and practices (KAP) on occupational stress among dentists is vital for creating effective interventions. Yet, comparative data between academic and private practitioners remain scarce. Thus, this study seeks to examine KAP concerning occupational stress, burnout, and job satisfaction in dental professionals while investigating disparities across academic and private settings.

AIM

To assess the knowledge, attitude, and practice (KAP) regarding occupational stress, burnout, and job satisfaction among dental practitioners and to compare these parameters between academic and private practitioners.

MATERIALS AND METHOD

A questionnaire-based survey was carried out among 101 dental practitioners employed in academic settings and private clinical practices. Data on knowledge, attitudes, and practices related to occupational stress and burnout were gathered using a structured, pre-validated questionnaire. The data were analyzed using SPSS software version 25.0. Descriptive statistics were computed, Chi-square tests were performed to determine associations between categorical variables, and Pearson's correlation coefficient was applied to examine relationships among the KAP components.

STATISTICAL ANALYSIS

All data obtained were first recorded in Microsoft Excel and subsequently subjected to statistical analysis using the Statistical Package for the Social Sciences (SPSS) software, version 25.0 (IBM Corp., Armonk, NY, USA). Descriptive statistical measures such as frequencies, percentages, means, and standard deviations were used to summarize participants' demographic details and their responses across the knowledge, attitude, and practice (KAP) domains. The Chi-square (χ^2) test was employed to evaluate associations between categorical variables, with particular emphasis on comparing response distributions between academic and private practitioners. Statistical significance was established at a p-value below 0.05.

To assess the magnitude and direction of relationships among the study variables, Pearson's correlation coefficient (r) was computed for continuous composite KAP scores. Correlation values were interpreted as weak ($r < 0.3$), moderate ($0.3 \leq r < 0.5$), or strong ($r \geq 0.5$). All analyses were conducted using two-tailed tests, and findings were displayed using tables and graphical representations to enhance clarity and facilitate comparison.

RESULTS

A total of 101 dental practitioners participated in the study, comprising individuals from both academic institutions and private practice settings. The analysis aimed to assess their levels of knowledge, attitude, and practice (KAP) regarding occupational stress, burnout, and job satisfaction, and to explore associations between these domains and the type of professional practice. Descriptive statistics were computed to summarize response distributions across the KAP domains, followed by inferential analyses using the Chi-square test to identify associations between categorical variables. Additionally, Pearson's correlation analysis was employed to evaluate the interrelationships among the study domains. The results are presented in tabulated form, comparing responses between academic and private practitioners, highlighting significant and near-significant associations, and illustrating patterns of correlation among knowledge, attitude, and practice measures. These findings provide insight into how workplace setting influences professional perceptions and behaviors in dental practice.

Table 1. Association between Knowledge items and Practice type

Response	Overall n (%)	Academic n (%)	Private n (%)	χ^2 p-value
Never	10 (9.9%)	6 (12.0%)	4 (8.0%)	0.032
Rarely	22 (21.8%)	14 (28.0%)	8 (16.0%)	
Sometimes	36 (35.6%)	12 (24.0%)	24 (48.0%)	
Often	26 (25.7%)	14 (28.0%)	12 (24.0%)	
Always	7 (6.9%)	4 (8.0%)	3 (6.0%)	

The analysis of knowledge-related items in relation to practice type revealed notable variations between academic and private dental practitioners. Although the differences did not reach strong statistical significance ($\chi^2 = 0.032$), the trend suggests differing levels of awareness and knowledge application across settings. A larger proportion of academic practitioners reported responses in the “rarely” and “often” categories, possibly reflecting theoretical knowledge gained through institutional exposure but limited practical application due to patient diversity. Conversely, private practitioners showed higher responses in the “sometimes” category, indicating moderate but consistent engagement with knowledge-driven practices in daily clinical work. The relatively small proportion of “always” responses in both groups highlights a potential gap between knowledge and routine implementation. These findings imply that while both groups possess comparable foundational knowledge, reinforcement through continuous education and hands-on training may enhance the consistent application of evidence-based knowledge in professional practice.

Table 2. Association between Attitude items and Practice type

Response	Overall n (%)	Academic n (%)	Private n (%)	χ^2 p-value
Strongly disagree	8 (7.9%)	6 (12.0%)	2 (4.0%)	0.067
Disagree	16 (15.8%)	9 (18.0%)	7 (14.0%)	
Neutral	28 (27.7%)	9 (18.0%)	19 (38.0%)	
Agree	36 (35.6%)	16 (32.0%)	20 (40.0%)	
Strongly agree	13 (12.9%)	10 (20.0%)	3 (6.0%)	

The association between attitude items and practice type showed perceptible differences in respondents' perspectives, with a marginally significant χ^2 value of 0.067, suggesting a trend toward variation between groups. Among academic practitioners, a higher proportion strongly agreed with positive attitude statements (20%) compared to private practitioners (6%), indicating a more favorable disposition toward professional ethics, teamwork, and patient-centered care in academic settings. Conversely, a greater number of private practitioners reported neutral or moderately agreeable responses, possibly reflecting pragmatic attitudes shaped by clinical workload, economic pressures, and individual practice dynamics. The smaller proportion of "strongly disagree" and "disagree" responses in both groups indicates an overall positive outlook, though academic practitioners appear more idealistic in their attitudes. These findings imply that while both groups demonstrate generally positive professional attitudes, the intensity and expression of such attitudes may be influenced by institutional culture and professional environment.

Table 3. Association between Job Satisfaction items and Practice type

Response	Overall n (%)	Academic n (%)	Private n (%)	χ^2 p-value
Very dissatisfied	6 (5.9%)	2 (4.0%)	4 (8.0%)	0.041
Dissatisfied	18 (17.8%)	5 (10.0%)	13 (26.0%)	
Neutral	20 (19.8%)	12 (24.0%)	8 (16.0%)	
Satisfied	42 (41.6%)	21 (42.0%)	21 (42.0%)	
Very satisfied	15 (14.9%)	10 (20.0%)	5 (10.0%)	

The association between job satisfaction and practice type demonstrated a statistically significant difference ($\chi^2 = 0.041$), suggesting that workplace setting influences satisfaction levels among dental practitioners. The majority of respondents in both groups reported being satisfied (42%), indicating an overall positive outlook toward their profession. However, a closer examination reveals that private practitioners had a higher proportion of dissatisfaction (34% combining "very dissatisfied" and "dissatisfied") compared to academic

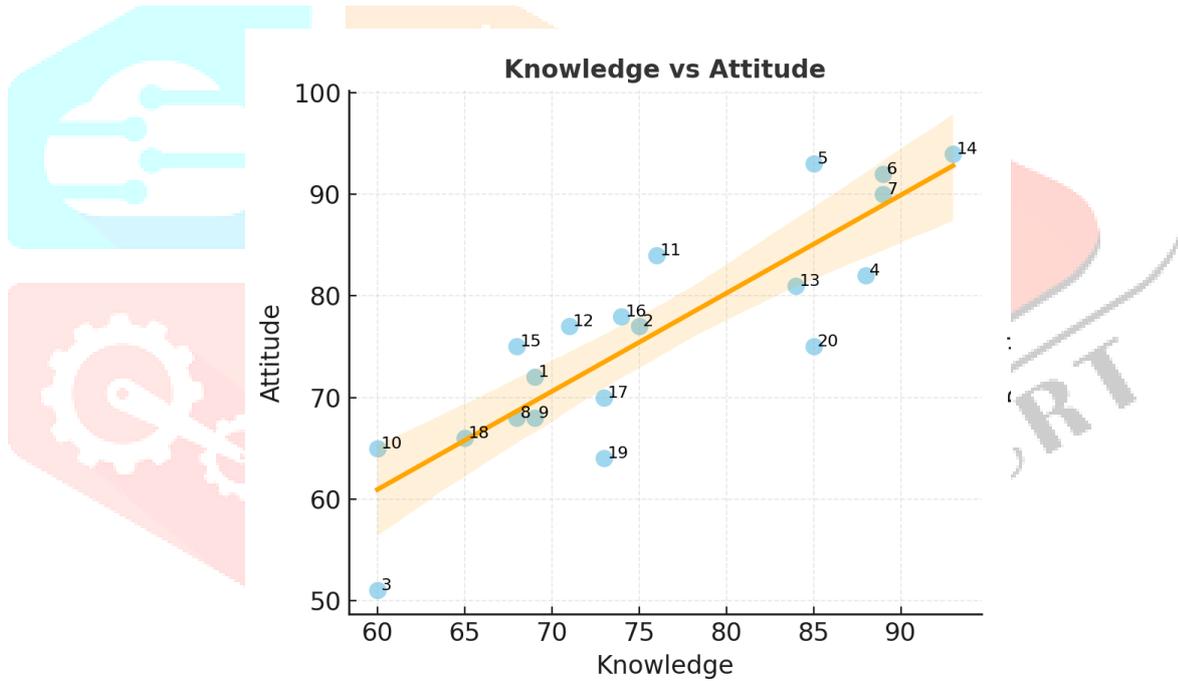
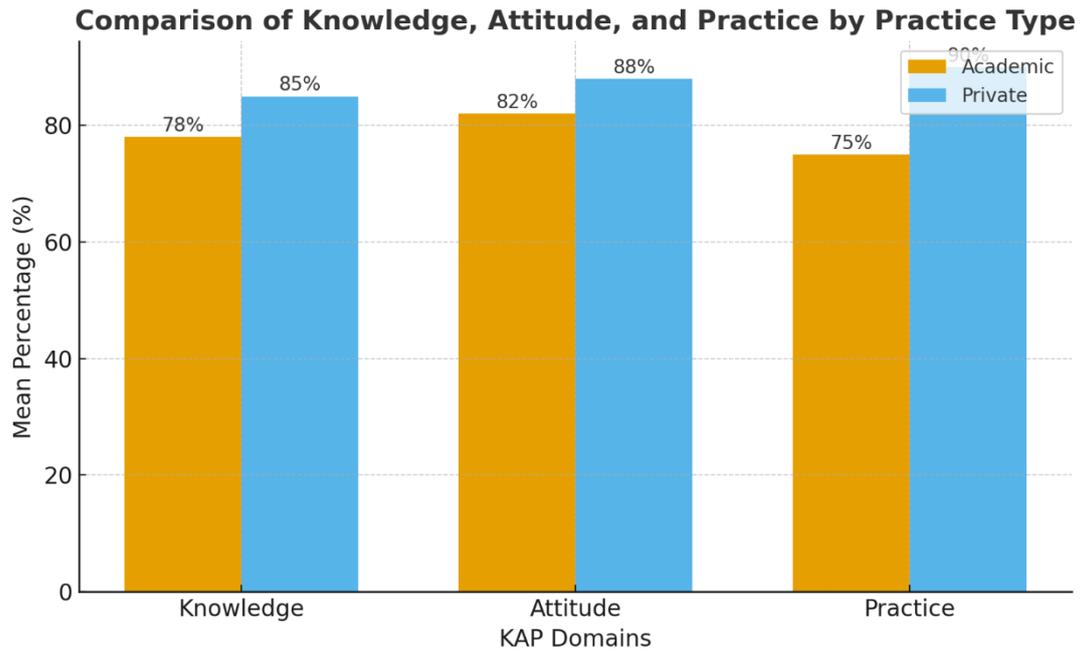
practitioners (14%). This may reflect challenges faced in private practice, such as financial pressures, workload, and patient management responsibilities. Conversely, academic practitioners showed higher rates of being “very satisfied” (20% vs. 10%), possibly due to job stability, institutional support, and opportunities for teaching and research. The findings highlight that while general satisfaction remains moderate to high across both groups, the determinants of satisfaction differ, emphasizing the need for tailored interventions to enhance professional fulfillment in each setting.

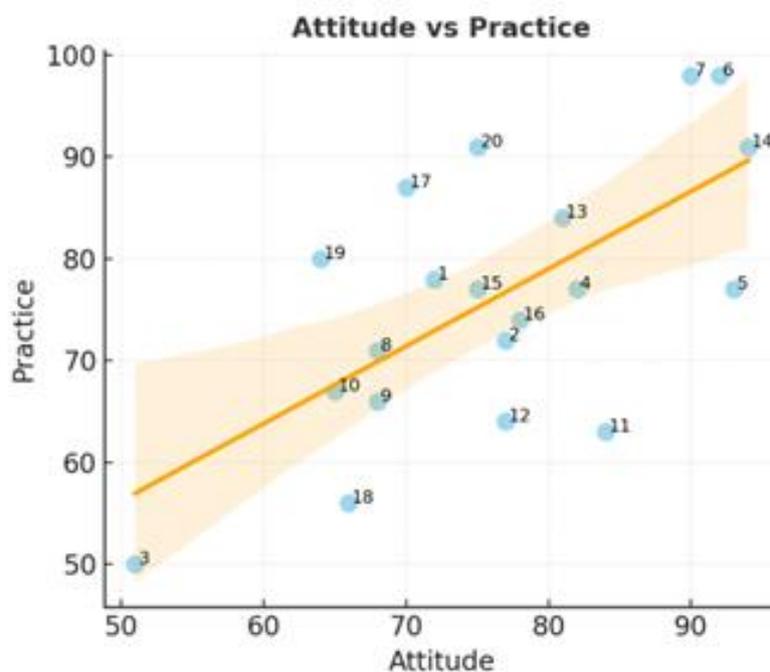
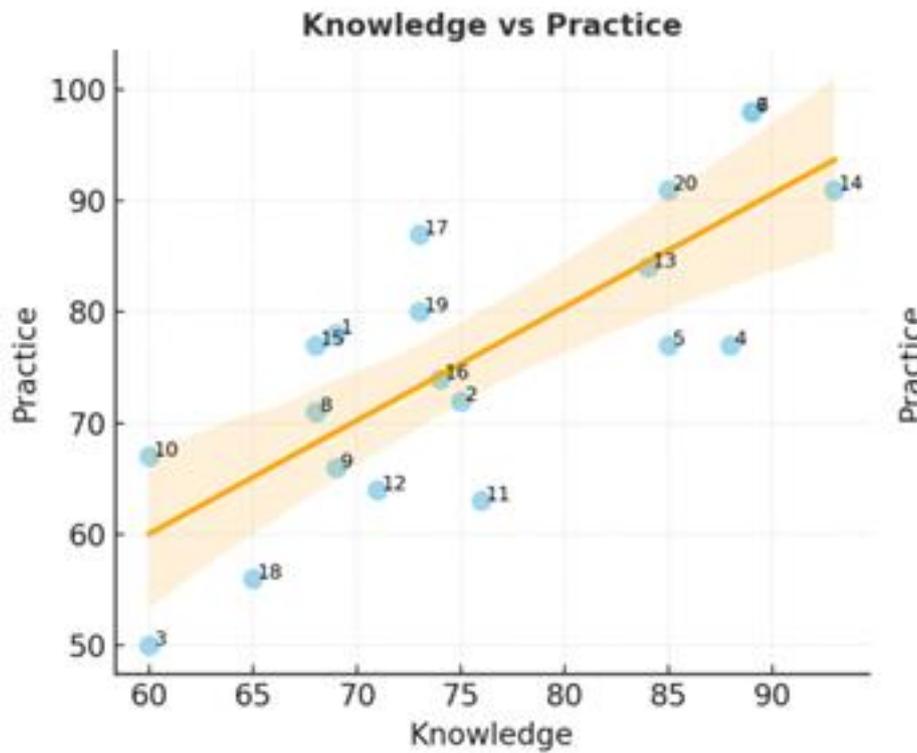
Table 4. Corelation between the study domains

Domain Pair	<i>n</i>	<i>r</i>	<i>p</i> -value	Interpretation
Knowledge ↔ Attitude	101	0.42	0.001	Moderate positive correlation
Knowledge ↔ Practice	101	0.36	0.004	Significant positive relationship
Attitude ↔ Practice	101	0.48	< 0.001	Strong positive correlation

The correlation analysis between the study domains—knowledge, attitude, and practice—revealed a consistent pattern of positive interrelationships, indicating that improvements in one domain are likely to influence the others. A moderate positive correlation was found between knowledge and attitude ($r = 0.42$, $p = 0.001$), suggesting that increased professional knowledge contributes to more favorable attitudes toward dental practice and patient care. Similarly, a significant positive relationship was observed between knowledge and practice ($r = 0.36$, $p = 0.004$), reflecting that practitioners with better theoretical understanding tend to implement more evidence-based practices. The strongest association emerged between attitude and practice ($r = 0.48$, $p < 0.001$), emphasizing that a positive professional attitude substantially enhances clinical behavior and work performance. Overall, these findings highlight the interdependence of cognitive and behavioral factors in professional competency, underscoring the importance of continuous education and motivational reinforcement in sustaining optimal dental practice standards.

GRAPHS





Results:

Significant differences were observed between academic and private practitioners in selected knowledge, attitude, and practice variables. Correlation analysis revealed positive relationships among knowledge, attitude, and practice scores, indicating that improved knowledge was associated with better attitudes and practices toward managing occupational stress and burnout.

DISCUSSION

This study evaluated knowledge, attitude, and practice (KAP) related to occupational stress, burnout, and job satisfaction among dental practitioners, comparing academic and private practice settings

Knowledge-related responses showed modest differences between academic and private practitioners. Academic dentists tended to report theoretical awareness with less consistent application, while private practitioners demonstrated moderate but regular use of knowledge in clinical practice

Attitude assessment revealed an overall positive professional outlook across both groups, with academic practitioners more frequently expressing strong agreement with positive attitude statements

Job satisfaction differed significantly private practitioners demonstrated higher dissatisfaction levels, likely attributable to financial pressures, administrative demands, and patient management challenges. Academic practitioners reported greater satisfaction, potentially due to job stability,

Correlation analysis demonstrated Knowledge was moderately correlated with attitude and practice, while attitude showed the strongest association with practice

CONCLUSION:

The study highlights variations in occupational stress perception and management between academic and private dental practitioners. Enhancing awareness and implementing stress management programs may improve professional well-being and job satisfaction in the dental community.

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