

# Burnout Among Dental Professionals: A Cross-Sectional Study

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## ABSTRACT

Burnout is a significant psychological condition affecting healthcare professionals, particularly those in high-stress clinical environments such as dentistry. It is characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment[8]. This study aims to evaluate the prevalence and dimensions of burnout among dental professionals using the Copenhagen Burnout Inventory (CBI). A cross-sectional study was conducted among 48 dental practitioners. The results revealed a high prevalence of personal burnout (95%), especially among early-career professionals. Work-related burnout was observed in 33.3% of participants, whereas client-related burnout was minimal (4.2%). These findings suggest that while professional demands contribute significantly to burnout, patient interactions may act as a protective factor[10]. Additionally, comparisons with longitudinal studies indicate that stress, anxiety, and psychological challenges experienced during dental education may persist into professional life and contribute to burnout development [2,5]. Early intervention strategies at the student level are therefore essential.

**Keywords:** Burnout, Dental Professionals, Copenhagen Burnout Inventory (CBI)

## INTRODUCTION

Burnout is a psychological syndrome that develops in response to chronic occupational stress and is characterized by emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment [8]. It has become a growing concern in healthcare professions due to increasing workloads, time pressure, and emotional demands. Dentistry is widely recognized as a highly stressful profession [4]. Dental practitioners are required to perform precise procedures under time constraints while managing patient anxiety and expectations. These factors contribute significantly to mental and physical strain [4]. Studies have shown that dentists often experience higher levels of stress compared to other healthcare professionals due to the combination of clinical responsibility, financial pressures, and patient management [3]. Importantly, stress in dentistry does not begin in professional practice alone. Research indicates that dental students experience significant levels of stress, anxiety, and even depression during their training years [2]. These early stressors, if not properly managed, may evolve into burnout during professional life [5]. Burnout has serious

implications, including reduced quality of care, decreased job satisfaction, mental health disorders, and even substance abuse [2]. Therefore, understanding its prevalence and contributing factors is essential for developing preventive strategies.

## MATERIALS AND METHODS

This cross-sectional study included 48 dental professionals. The Copenhagen Burnout Inventory (CBI) was used to assess burnout. Data were analyzed using the Chi-square test with significance set at  $p < 0.05$ .

### Study Design

A cross-sectional study was conducted to assess burnout levels among dental professionals.

### Study Population

The study included 48 dental practitioners at various stages of their careers, including early-career and experienced professionals.

### Data Collection Tool

**Relevant conflicts of interest/financial disclosures:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.



Burnout was assessed using the Copenhagen Burnout Inventory (CBI), a validated tool that measures burnout across three domains:

- Personal burnout
- Work-related burnout
- Client-related burnout

The CBI is widely used due to its reliability and ability to distinguish between different sources of burnout.

Data were analyzed using statistical software. The Chi-square test was applied to determine associations between variables. A p-value of <0.05 was considered statistically significant.

## RESULTS

The study revealed a high prevalence of burnout among dental professionals:

### Statistical Analysis

Burnout dimensions	Findings	Percentage
1. Personal burnout	Participants reported regular physical and mental exhaustion	95%
2. Work related - burnout	Felt completely worn out at the end of the workday	33.3%
3. Client related - burnout	Stress due to patient interaction (very minimal; mostly positive impact)	4.2%

Personal burnout: 95%

Work-related burnout: 33.3%

Client-related burnout: 4.2%

Personal burnout was the most dominant form, indicating that general physical and emotional exhaustion is highly prevalent among dentists. Work-related burnout was moderate, suggesting that professional responsibilities contribute significantly to stress [3,9]. However, client-related burnout was minimal, suggesting that patient interaction may not be a major stressor and may even provide professional satisfaction [10]. Early-career professionals showed higher levels of burnout compared to experienced practitioners, highlighting the challenges faced during the transition from education to clinical practice [5].

## DISCUSSION

The findings confirm that burnout is highly prevalent, particularly among early-career professionals. Stress experienced during dental education may progress into burnout in clinical practice [2][5]. The findings of this study highlight the widespread prevalence of burnout among dental professionals, particularly in the domain of personal burnout. This aligns with previous studies that have identified dentistry as a high-risk profession for stress and burnout [4,9]. One of the key observations is the high level of personal burnout (95%). This suggests that dentists experience significant emotional and physical exhaustion, which

may be attributed to long working hours, repetitive clinical procedures, and the need for sustained concentration. Work-related burnout (33.3%) further emphasizes the impact of professional responsibilities. Factors such as workload, administrative duties, and financial pressures contribute to stress among dental practitioners [3]. Interestingly, client-related burnout was very low (4.2%). This finding is consistent with other studies suggesting that patient interaction may not be a major stressor and may even provide professional satisfaction [10]. Positive patient outcomes and gratitude can act as protective factors against burnout. Another important aspect is the role of dental education in the development of burnout. Longitudinal studies have shown that dental students experience high levels of stress, anxiety, and depression during their training [2]. These psychological challenges may persist into professional life and contribute to burnout development [5]. Early-career professionals were found to be more vulnerable to burnout. This may be due to a lack of clinical experience, financial instability, and the pressure to establish a professional identity. Similar findings have been reported in previous research [5]. Burnout has serious consequences, including decreased job performance, reduced quality of patient care, and mental health issues such as depression and substance abuse [2]. Therefore, addressing burnout is essential not only for



the well-being of dental professionals but also for patient safety. Studies across different countries have also reported notable prevalence of burnout among dentists [9–11,14]. Female professionals may experience higher levels of burnout due to role-related factors [13]. Long working hours and dual responsibilities further increase burnout risk [12]. Burnout is also closely linked with reduced work engagement among dental professionals [15]. Studies such as those conducted in Central India further support the importance of understanding burnout in diverse settings [16].

## CONCLUSION

Burnout is highly prevalent and early intervention at the student level is essential to prevent long-term consequences. Burnout is highly prevalent among dental professionals, particularly in the form of personal burnout. The findings suggest that stress experienced during dental education may persist into professional life, contributing to burnout. Early-career professionals are especially vulnerable. Patient interaction appears to act as a protective factor against burnout. However, the overall high prevalence highlights the need for early intervention strategies. Addressing burnout is essential to ensure the well-being of dental professionals and maintain quality patient care. The low level of client-related burnout indicates that patient interaction may act as a protective factor. However, the overall high prevalence of burnout highlights the need for early intervention strategies, particularly at the student level. Addressing burnout through preventive measures and support systems is essential to ensure the well-being of dental professionals and the quality of patient care.

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