

# Areas of Work Life as Burnout Predictors in Dentists of Denpasar, Indonesia

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Date of submission: 20.11.2022

Date of acceptance: 23.05.2023

Date of publication: 01.07.2023

Conflicts of interest: None

Supporting agencies: None

DOI: <https://doi.org/10.3126/ijosh.v13i3.49673>



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## ABSTRACT

**Introduction:** Burnout is most common among healthcare workers and is characterized by emotional fatigue, depersonalization and low personal accomplishment impacting behaviors also the work environment. This study aimed to analyze areas of work-life and burnout among dentists in dental hospitals.

**Methods:** A cross-sectional survey study was conducted on 72 dentists in a dental hospital in Denpasar. An online questionnaire containing the Maslach Burnout Inventory and the Areas of Work Life Survey by Michael Leiter and Christina Maslach to estimate burnout and work life was used for data collection from April-May 2022. Multiple linear regression was used to evaluate the association.

**Results:** The work-life area category had a score of 3.45, while the dentist's average score for burnout had a mean value of 4.15. Workload, control, rewards, community, fairness, and values were associated with burnout. The control dimension showed the strongest correlation to burnout. The reward dimension had the most significant role in burnout. All dimensions of the work-life area are predictors of dentist burnout.

**Conclusion:** Based on the finding of this study, all of the dimensions of work life can potentially cause burnout in dentists. A reward is the most dominant variable in the emergence of burnout. Management needs to set policies to reduce burnout for dentists at work.

**Keywords:** Areas of work life, Burnout, Dentists, Indonesia

## Introduction

Dentistry is an occupation that provides compassionate care and an excellent opportunity to meet new people regularly, which may result in burnout.<sup>1</sup> Burnout is a psychological disorder present among professionals that involves a stressful condition, especially in people who carry out care social activities and is characterized by a range of symptoms including fatigue, sleeplessness, headaches, low immunity, irritation, suspicion, overconfidence, drug abuse, negative attitude, boredom and lack of motivation. All due

to continuous interpersonal stresses at work.<sup>2,3</sup>

According to Maslach et al.<sup>4</sup>, burnout is most common among healthcare workers and is characterized by emotional fatigue, depersonalization and low personal accomplishment impacting behaviors also the work environment.<sup>5</sup> In a study of service personnel, including dentists, burnout was associated with depression, anxiety, alcohol consumption, sleep and cognitive problems and musculoskeletal problems. Dentists have

extremely high levels of burnout, with 21% at particular risk, 13% having high levels of burnout, and 2.5% highly burned out and still working. Additionally, 26% of dentists reported having high emotional exhaustion and depersonalization.<sup>6,7</sup>

The high burnout levels among dentists may be attributed to the profession's interpersonal dynamics. The etiology of burnout in dentists is impacted by various psychosocial variables, including work-related stresses, dentist-patient relationships, stress perceptions, and the clinician's personality traits.<sup>8,9</sup> The following reasons contribute to occupational burnout in dentists' everyday lives: confinement, patient anxiety, compromised treatment, the stress of perfectionism, economic demands and low self-esteem. Furthermore, Cooper et al. reported time and schedule difficulties, pay-related stresses, patients' negative perceptions of the dentist, personnel and technological challenges, and difficulty dealing with patients were all stressors in dentistry. Some dentists described frustration with their patients, issues with their physical environment, uncomfortable working postures, and unhappy marriages as contributing factors to burnout.<sup>10,11</sup> There have been many studies on burnout among medical professionals but relatively little on burnout in dentistry. This study aims to investigate the area of work-life and burnout among practicing dentists in dental hospitals.

## Methods

This study used a cross-sectional analytic observational design. The study population comprised dentists with a minimum of one year's working experience, and a sample was gathered using consecutive sampling. In this study, 72 participants (dentists and dentist specialists) were from the Saraswati Dental and Oral Educational Hospital (RSGMP) in Denpasar. The study was carried out between April and May of 2022. Since the hospital had respondents with similar qualities of education, it was selected as the study site. To be eligible, respondents must have had at least one year of work experience as a

qualified dentist at the hospital.

The survey was distributed to respondents via Google Forms, and the participation was voluntary and anonymous. Participants gave their informed consent to participate and were informed about the study's objectives and procedures.

Christina Maslach and Michael Leiter's Mind Garden website provided the survey, which employed the standard Maslach Burnout Inventory (MBI) and Area of Work Life Survey (AWS) questionnaires. The validity test of the MBI and AWS was conducted on thirty respondents at dental clinic X in Denpasar, using the Pearson Correlation Product moment score total of more than the correlation table 0.235. Also, the reliability test using Cronbach's Alpha gave a result of more than 0.6. Permission was obtained from Mind Garden, (Mind Garden Inc., Menlo Park, CA) to use an Indonesian version of MBI and AWS. Individual characteristics such as age, gender, education, employment status and years of service as a hospital dentist were also included. All statistical computations were carried out using SPSS 23 (IBM SPSS Statistics for Windows, Version 23.0. Armonk, NY) and Excel 2013 spreadsheets, where variables were displayed as sums and percentages, as well as averages and standard deviations. The Kolmogorov-Smirnov test was used to assess customarily distributed data. After the data had been distributed, the Rank Spearman Correlation was used to determine the relationship between the strength and direction variables. Furthermore, Multiple linear regression analysis was used to predict and investigate the impact of various parameters, (independent variables). In all calculations, the significance level was set at  $p < 0.05$ .

## Results

Table 1 shows the demographic characteristics of the respondents. Age, employment status, the number of years employed, and education level are not all significant factors in burnout symptoms. The respondents were of age 51-60 (31.9%), 34.7% were male and 65.3% were female.

Most respondents (67 individuals, or 93.1%) had non-government employment status, with undergraduates and postgraduates amounting to

51 respondents (71%). Furthermore, there were 33 respondents (45.8%) with less than ten years of working experience.

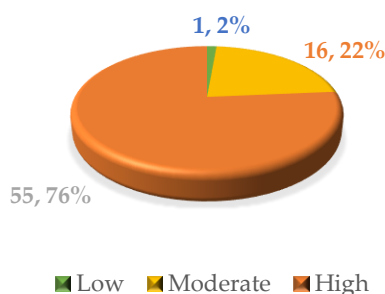
**Table 1:** The demographic characteristics of the respondents

Demographic	N (%)
<b>Gender</b>	
Male	25 (34.7%)
Female	47 (65.3%)
<b>Age group (years)</b>	
21-30	18 (25%)
31-40	20 (27.8%)
41-50	9 (12.5%)
51-60	23 (31.9%)
>60	2 (2.8%)
<b>Education</b>	
Dentist certification	16 (22%)
Specialist/Master	51 (71%)
Consultant/Doctoral	5 (7%)
<b>Employment Status</b>	
Government	5 (6.9%)
Non-government	67 (93.1%)
<b>Working experience</b>	
<10 years	33 (45.8%)
11-20 years	14 (19.4%)
21-30 years	22 (30.6%)
>30 years	3 (4.2%)

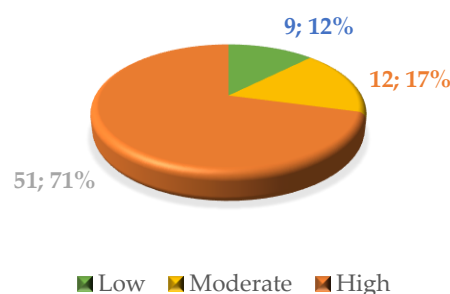
The work-life factor statement had an average total score of 3.45. The numbers correspond to the compatibility or fitness categories (>3) in respondents with work-life factors of high workload 3.79 (>3.5); moderate control 3.49 (2.67-4.0); medium reward 3.62 (2.76-3.8); medium community 3.85 (2.81-4.0); medium fairness 3.25 (>3.33); and medium values 3.5 (2.78-3.375).

The responses from 72 dentists revealed that 22% claimed to experience moderate burnout and

76.4%, or 55 respondents experienced high burnout. Figure 1 depicts each burnout description. Only one respondent, or 1.4%, had low burnout, while 22.2%, or 16 respondents, experienced moderate burnout. The findings indicate that most respondents suffer emotional fatigue at least once a week (mean=4.19), depersonalization or cynicism at least several times a month (mean=3.6), diminished self-achievement at least once a week (mean=4.43), and burnout once a week on average (mean=4.15).



**Figure 1:** Emotional fatigue among subjects



**Figure 2:** Depersonalization among subjects

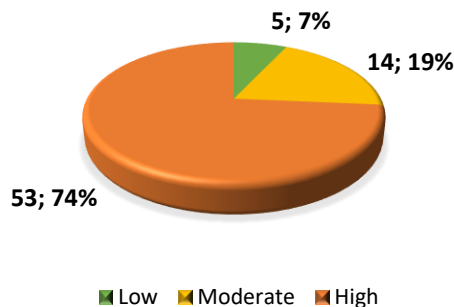


Figure 3: Personal accomplishment among subjects

The study also investigated the association between participants' work-related fatigue levels and elements such as workload, control, community, reward, fairness, and value. Table 2 demonstrated a robust association, particularly for the AWS control factors to burnout. Burnout worsens when the respondent's level of control, community, respect, fairness, values and workload increases.

Table 2: Areas of Work Life to Burnout

AWS	Burnout	
	r	p
Workload	0,636	<0.001
Control	0,949	<0.001
Rewards	-0,890	<0.001
Community	-0,941	<0.001
Fairness	-0,851	<0.001
Values	-0,820	<0.001

r = correlation coefficient; p = significance level.

A regression model was created using the Multiple Linear Regression Analysis Backward approach. The determination coefficient (R squared) was 0.91, indicating that the regression model can explain 91% of the variation in burnout symptom variables. It can also be deduced that the six independent variables of work-life area factors can account for 91% of the variation in the burnout parameter. P (sig) = 0.000 can be seen in the F-test

results. This demonstrates that the 5% alpha of the regression model matches the existing data or that the variable can predict burnout significantly. The significance test revealed a substantial link between burnout and workload, rewards, community and values. The reward factor has the most significant impact on the emergence of burnout. An analysis of the results can be seen in Table 3.

Table 3: Regression analysis area of work life to burnout

Model 1	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Significance
Constant	136.143	19.414	-	7.013	0.000
Workload	1.193	0.353	0.173	3.379	0.001
Control	0.695	0.524	0.124	1.326	0.189
Reward	-1.528	0.426	-0.276	-3.589	0.001
Community	-1.027	0.412	-0.209	-2.459	0.015
Fairness	-0.494	0.286	-0.108	-1.726	0.089
Values	-1.687	0.532	-0.200	-3.173	0.002

Model 2	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Significance
Constant	158.918	9.109	-	17.446	0.000
Workload	1.117	0.350	0.162	3.189	0.002
Reward	-1.759	0.391	-0.317	-4.503	0.000
Community	-1.364	0.326	-0.278	-4.186	0.000
Fairness	-0.541	0.286	-0.118	-1.894	0.063
Values	-1.780	0.530	-0.211	-3.358	0.001

## Discussion

Burnout in the medical profession is a problem that often occurs and requires in-depth examination. Burnout affects includes doctors and nurses and is also found in dentists and dental nurses. Risk factors for dentist burnout include work pressure, working time, anxiety, finances, complex patients and problems with colleagues and closest staff.<sup>12,13</sup>

Burnout in dentists causes physical and psychological damage<sup>14,15,16</sup> such as emotional exhaustion, anxiety, irritability, depression and decreased motivation and self-esteem. Furthermore, burnout also has negative impacts on physical health in the form of lower back pain, musculoskeletal issues, headaches and digestive disorders.<sup>17,18,19</sup>

The relationship between dentists and patients is regarded as one of the primary sources of stress and fatigue. Interaction among employees and the perception of a safe working environment contribute significantly to employee productivity. Long-term fatigue in the workplace will lead to high turnover, absenteeism, a lack of work dedication, and job dissatisfaction, all of which will influence organizational productivity.<sup>20,13</sup>

Most research on stress and burnout in health care has focused on physicians and nurses. Even fewer studies have been conducted on dentists in Indonesia than elsewhere. A low number of studies were conducted on dentist stress and associated causes, as well as dentistry student burnout. No research has been conducted on dentist burnout in Indonesia.<sup>21,22,23</sup> According to one study, non-specialist dentists are more likely to experience burnout than specialist dentists.<sup>11</sup>

The relationship between years of work and work

life with burnout symptoms was discovered among dentists who had 5-10 years of practice. However, the prevalence of burnout dropped for practitioners with more than ten years of experience.<sup>24</sup> Practitioners may learn to manage work stress as they gain experience. Senior and younger doctors participated in the study, where the researchers found a substantial difference in emotional fatigue. After ten years of employment, senior doctors had higher emotional exhaustion.<sup>25</sup>

A working dentist with a practicing license can provide services in three locations. Several respondents performed several service activities, not just at one location. This is consistent with a study on burnout symptoms, which discovered that dentists who worked in many locations had a higher percentage of burnout symptoms (depersonalization) than dentists who exclusively operated in one location.<sup>26,27</sup>

Workload and job control are critical in improving the working environment. The improved working environment is indicated by a lower workload, which reduces fatigue and can also be related to increased work control. Someone who can regulate her/his work is thought to protect himself from workplace errors, yet the symptoms of burnout are severe. According to the study of health practitioners working in Italian hospitals, a high workload does not constitute a severe problem when workers have substantial involvement in making decisions. In order to reduce worker stress, a systemic review of stress management controls is essential.<sup>28,29</sup>

In this study, it was determined that rewards have the most significant impact on burnout. According to a study, there is a correlation between

appreciation, emotional exhaustion, and depersonalization.<sup>5</sup> The provision of rewards commensurate with work accomplishment is a measure that can be taken to reduce burnout.<sup>30</sup>

Community in the area of work life is defined as social support in the workplace and individual relationships. Conflict, support, intimacy and teamwork are workplace social interaction attributes that majorly impact work life. Ties between leaders and subordinates and relationships among coworkers can help workers feel a sense of belonging. This study's findings are consistent with the work environment study, which demonstrates the relevance of community points in supporting work life in hospitals.<sup>31</sup> Burnout can be efficiently managed by combining individual and organizational strategies, with engagement as a positive intervention objective.

Individual treatments such as stress management, cognitive-behavioral training, mindfulness-based stress reduction, meditation, rapid relaxation, recognition of daily stressors, narrative counseling and technology may be helpful in burnout management.<sup>32</sup>

### Conclusions

According to this study, high emotional exhaustion was the most significant cause of burnout among dentists. Furthermore, job control is vital in forming a favorable treatment for burnout. This study shows that rewards are the primary influence on the probability of burnout. All areas of work-life characteristics, (workload, control, community, reward, fairness, and values) could predict burnout in dentists.

### Acknowledgments

The authors would like to thank all the study participants for their valuable time.

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