ORIGINAL ARTICLE

EFFECT OF INCREASED WORKLOAD AND PHYSICIAN BURNOUT ON TURNOVER INTENTION OF DENTISTS IN TERTIARY CARE DENTAL HOSPITALS OF PAKISTAN

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Background: Increased workload is one of the leading causes of physician burnout of dentists in tertiary care hospitals of Pakistan resulting in an increased turnover intention. This study reviews the effect of increased workload on burnout and turnover intention in dentists working in the private and public dental hospitals of Islamabad and Rawalpindi. **Methods:** This quantitative, cross-sectional study was conducted in Islamabad and Rawalpindi, from Jun to Jul 2022. The target audience was selected with simple random sampling. An online survey was conducted and a total of 100 PMDC-registered dentists filled the survey questionnaire. Indexes used for assessment of burnout, turnover intention, and workload were the Copenhagen Index Scale (Tis-6), and NASA task load index respectively. **Results:** The correlation between workload and turnover intention can be seen as strongly positive (r=0.419, p<0.01). The correlation between the workload and dependent turnover intention can be seen as strongly positive (r=0.419, p<0.01). The results showed that an increase in workload leads to an increased physician burnout which in turn causes an increased rate of turnover intention in dentists. **Conclusion:** Dentists in Islamabad and Rawalpindi are facing the problem of increased workload during working hours, resulting in physical and psychological burnout leading to an increased turnover intention.

Keywords: Emotional burnout, Physical burnout, Turnover intention, Workload

Pak J Physiol 2025;21(4):11–4, **DOI:** https://doi.org/10.69656/pjp.v21i4.1595

INTRODUCTION

In Pakistan, the dentist-population ratio is one of the largest health concerns in the present years. According to the National Institute of Health, in urban areas, the dentist-patient ratio is 1 dentist for 42,000 patients. In the rural areas, this ratio further worsens to 1:500,000.[1] This deficit in the number of dentists throughout the country has increased the workload on the dental community in the few tertiary care hospitals in Pakistan. According to WHO, oral disease is the fourth most expensive disease to treat globally.[1] In a developing economy, the majority of the community relies on tertiary care dental hospitals for their dental treatments as they are severely more cost-effective than private dental care. There are very few tertiary care dental hospitals in Pakistan, so this ratio is multiplied several fold. The roles of dentists in such hospitals are not confined to patient dealing but dentists' are also directly associated with maintaining, managing, and supervising various roles around the hospital. This increased workload and continuous pressure cause severe physical and emotional exhaustion, further leading to burnout.

Physician burnout is one of the major determinants of job satisfaction and self-efficacy among dentists. Burnout caused by continued professional expectations and exhaustion that is not adequately managed has three aspects: emotional exhaustion, depersonalization, and decreased sense of personal accomplishment.[2] The major cause of burnout among dental professionals is the physical workload, of dealing with patients as well as the emotional workload due to other perceived responsibilities. As explained by Morrill, when the work requirement of an individual exceeds their working capacity or an individual is required to complete certain activities for which the given time is insufficient, they tend to push their physical and mental boundaries.[3] This unnecessary exertion to complete tasks in a shorter period causes the body to shut down and not being able to bear any more stress is called workload. Recent studies have shown that increased workload has been directly linked with burnout.[4]

Another key aspect associated with workload, and physician burnout is the turnover intention. Turnover intention can be described as an individual's perspective and attitude towards voluntarily quitting their job and looking for other jobs where their perceived needs are met.[4] Increased workload and burnout are a direct determinant of turnover intention in not only medical and dental employees but in any sort of employment all over the world.

Referring particularly to the dental community in Pakistan, previously mentioned data has shown that there is a significant gap in the ratio of dentists to patients. This leads to burnout, one of the major factors contributing to dentists' intention to quit working in hospitals and establish better-paying private practices

with a controlled workload. Burnout and turnover intention are directly linked.[5] If the burnout is increased, the intention to quit will be higher too, and *vice versa*. The high workload is a major factor contributing to increasing turnover intention in hospitals and increasing dentists' preference to work in private practices with controlled patient flow. Another important reason for turnover intention among dentists is migration to countries that have better doctor-patient ratio, controlled clinical workloads and better compensation, which is termed an emergency in the Asia-Pacific region.[6]

There have been multiple works that relate workload and burnout to turnover intention. It is known that increased burnout due to long working hours in hospitals tends to increase the turnover intention of doctors and nurses.[7] However, there are not many studies targeting specifically the dental community that do not share the same attributes. Even though in Pakistan, dentists are not required to work 24 or 36-hour shifts, still, the turnover intention remains high due to high volume to patients receiving free care in tertiary hospitals which greatly effects the doctor to patient ratio and significantly increases burnout. As research indicates, in Pakistan, 62% of the dentists experience some sort of burnout.[1] Another study in China reveals that the most predictive aspect of turnover intention was the chance to work in a privately owned clinic, which was preferred by most dentists.[2] Majorly due to the fact that private setup had a controlled patient flow and did not cause burnout. There is a significant gap in the studies that address dentists. There are several types of job stressors for dentists, including financial troubles, private practice problems, patient obstacles, and emotions of time pressure and strain, which can be connected to dentists' career objectives and turnover intentions.[8]

In Pakistan, the working hours of the dental hospitals are less compared to general hospitals, and more patients are to be treated in a short period which leads to the excessive workload on the dentist and they suffer daily from both physiological as well as psychological exhaustion. Due to the greater workload, they are physically exhausted which in turn leads to neck, shoulder, and wrist disorders.[9] In the long run due to this most dentists tend to retire prematurely or shift their field from clinical to teaching side. Moreover, in a dental hospital, a dentist is not only required to deal with the patients but also managerial duties, time management, and supervisory duties are also performed which increase additional non-clinical workload and create emotional and physical burnout.

The salary of dentists is quite low to meet their financial end in many practice clinics this occupies their family time, the personal time leading to psychological stress.[10] Due to excessive workload, stress, and burnout suicide rate is also increasing in the dental profession. A study in UK revealed that studies surveying suicide and occupation showed a high suicide rate among dentists compared to other professions and general public.[11]

The role of the limited dental community is significant in Pakistan considering the high number of oral diseases prevailing in the rural as well as the urban areas. This work aims to expand the existing knowledge about job stressors such as workload and burnout and their effects on turnover intention specifically highlighting it in dentist community of Pakistan.

MATERIAL AND METHODS

It was a quantitative, descriptive, cross-sectional study. The target audience of a total of 100 dentists was selected by simple random sampling and was calculated using the WHO calculator. An online survey was conducted and a total of 100 PMDC-registered dentists filled the survey questionnaire. The participants were categorized into Faculty members of teaching hospitals, House officers, General dentists, PG trainees, and Specialists working in public and private sector dental hospitals in Islamabad.

A questionnaire was designed that included questions related to demographic details and other work-related characteristics like working hours, duties that you perform in your workplace, patients treated per day, job satisfaction, and level of exhaustion.

The Copenhagen Burnout Inventory (CBI) scale was used to measure burnout in the participants.[12] It is a standardized questionnaire that scores burnout in 3 different categories: personal burnout, patient-related burnout, and work-related burnout. Each question consists of a Likert-type response, i.e., 1 representing the least and 5 representing the highest burnout score.

To measure workload, the NASA Task Load Index scale was used.[13] Designed by Stavelands, this questionnaire measures workload on a seven-point scale. For measuring Turnover Intention, a shortened six-item versioned Turnover Intention Scale (TIS 6) was used. This scale has six items and measures on a five-point scale, where 1 is the lowest and 5 is the highest.

Based on an extensive study of the existing literature, four hypotheses were developed for this study.

H1: Increased workload is positively associated with turnover Intention.

H2: Increased workload is positively associated with physician burnout.

H3: Burnout is positively associated with turnover intention.

H4: Burnout mediates the relationship between workload and turnover intention.

RESULTS

The correlation between the independent variable workload and dependent variable turnover intention were as strongly positive. (r=0.419, p<0.01). (Table-1).

There was a strong positive association between workload and burnout (r=0.168, p<0.05) and burnout also had a direct positive relationship with turnover intention (r=0.329, p<0.01). However, after mediation analysis, it was seen that there was a positive indirect relationship (via burnout) between workload and turnover intention that was much stronger than the previous direct relationship between workload and turnover intention. (Table-2).

Table-1: Mean±SD, and correlation between workload, burnout and turnover intention

Parameter	Mean±SD	WL	BO	TI
WL	4.31±0.47	1		
BO	4.35±0.47	0.168*	1	
TI	4.30±0.50	0.419**	0.329**	1

*p<0.05, **p<0.01, WL=Workload, BO=Burnout, TI=Turnover Intention

Table-2: Direct and indirect mediation effects between workload, burnout and turnover intention

Parameter	BO	LL	UL
Direct Effects			
WL-TI	0.14	-0.01	0.3
WL-BO	0.51*	0.31	0.49
BO-TI	0.28*	0.21	0.35
Indirect Effects			
WL-BO-TI	0.16*	0.09	0.17

*p<0.05, LL=lower limit, UL=upper limit

DISCUSSION

This study has provided crucial evidence on the existing workload profile, burnout, turnover intention, and related linkages among dentists in Islamabad's private and public sector hospitals. Overall, dentists were reported to be unsatisfied with most aspects of their work and working experience, particularly job workload and organizational management. A significant number of dentists were suffering from severe burnout syndrome, which included decreased physical competence and emotional tiredness. Furthermore, some dentists indicated a strong inclination to leave. The workload increase showed a large direct influence on physician burnout, and burnout had a significant positive direct effect on turnover intention. Furthermore, the workload had a strong direct influence on turnover intention via burnout as a mediator.

Previous studies have also observed a positive correlation between increased workload, low peronal accomplishment and turnover intention. For example, one study concluded that 63.9% of occupational physician in France deal with feelings of low peronal accomplishment as a result of burnout.[14] Additionally, a study conducted in Khyber Pakhtunkhwa revealed that two-thirds of dental professionals experienced some form of mental disturbance due to job stressors, leading to higher turnover intention.[15] Similarly, a study in China found that job dissatisfaction and burnout syndrome significantly affected the turnover intention of physicians, with emotional exhaustion playing a partial mediating role.[16] Our findings are consistent with these studies, indicating that increased workload leads to higher burnout and turnover intention among dentists.

The correlation between workload and burnout is supported by multiple studies across different regions. A study conducted in Taiwan found that workload significantly predicted burnout and turnover intention among hospital dentists.[8] Additionally, research in the UK highlighted that dentists often experience professional burnout, anxiety disorders, and clinical depression due to the demands of clinical practice and personality traits commonly found in individuals who choose dentistry as their profession.[17] These findings align with our results, showing that increased workload leads to higher burnout levels and, consequently, higher turnover intention.

Our study revealed that burnout serves as a mediator between workload and turnover intention. This mediating effect has been documented in previous literature. For instance, a study in Hubei, China, showed that occupational burnout mediated the relationship between job satisfaction and turnover intention among physicians.[2] Our findings suggest that addressing burnout could mitigate the impact of workload on turnover intention, providing a crucial intervention point for healthcare organizations.

The implications of these findings are significant for healthcare management. The high turnover intention observed among dentists due to workload and burnout suggests the need for organizational changes to reduce workload and support the mental health of dental professionals. Strategies such as increasing staff numbers, providing mental health resources, and implementing workload management programs could help alleviate burnout and reduce turnover rates. This study contributes to the existing literature by specifically focusing on the dental community in Pakistan, a group that has been less studied in previous research.

PRACTICAL IMPLICATIONS

This study enhances the body of knowledge regarding dental professionals. The findings of this study can help healthcare organizations establish healthcare systems that benefit the physical and mental health of dental professionals. By addressing the factors contributing to burnout and turnover intention, organizations can improve job satisfaction and retention rates among dentists, benefiting the healthcare system as a whole.

LIMITATIONS

This study was carried out only in the region of Islamabad and Rawalpindi. The sample size was small, and the study duration was short. Data from dentists working in general hospitals and private clinics were not included. A larger sample size and a more diverse

population should be included to provide a more comprehensive understanding of the issue. Longitudinal studies could help determine the long-term effects of workload and burnout on turnover intention.

CONCLUSION

Dentists in Islamabad and Rawalpindi are facing the problem of increased workload during working hours, resulting in physical and psychological burnout leading to an increased turnover intention. Many dentists are changing their field, and some have taking early retirement since their physical condition is not allowing them to work under such loads. Addressing these issues is crucial for improving the job satisfaction and retention of dental professionals, ultimately enhancing the quality of dental care provided to patients.

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Received: 16 Nov 2023 **Reviewed:** 14 Nov 2025 **Accepted:** 16 Nov 2025

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HJ: Proof reading, writing and editing

Conflict of Interests: None to be declared **Funding:** None received