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## Original Article



# Prevalence of Burnout Syndrome among Physical Therapy House Officers

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## ABSTRACT

Burnout syndrome is a psychological syndrome that is caused by inter-personnel stressors related to prolonged and hectic working hours in a hospital setting. It is overwhelming exhaustion feelings of cynicism, detachment from the job, and lack of accomplishment.

**Objective:** To find the prevalence of burnout syndrome in physical therapy house officers working in the hospitals of Rawalpindi and Islamabad. **Methods:** The selection of participants was done by the purposive method of sampling and data collection from the 161 included participants was done by using the Maslach Burnout Inventory-Human Services Survey. The analysis of data were done by using IBM Statistics SPSS version 22.0. **Results:** The means and standard deviation for the three components of burnout were found to be  $25.09 \pm 9.56$  for Emotional Exhaustion (EE),  $10.093 \pm 5.93$  for Depersonalization (DP), and  $31.248 \pm 9.45$  for Personal Accomplishment (PA). The mean values fall in the range of moderate level for Emotional Exhaustion (EE), moderate level for Depersonalization (DP), and low level for Personal Accomplishment (PA). Overall, an average of moderate to high levels of burnout was found in the included participants. **Conclusions:** It is concluded that physical therapists working in Rawalpindi and Islamabad are at high risk of developing burnout because of hectic routines and because of the reason that they are not being paid for their work.

## INTRODUCTION

For the first time, burnout syndrome was described in 1974 by the famous scientist Herbert Freudenberg, and observed in healthcare workers characterized by multiple physical and psychological disorders. Burnout syndrome is overwhelming exhaustion feelings of cynicism, detachment from the job, and lack of accomplishment [1]. A detailed investigation was made by two scientists named Maslach and Jackson in 1993 [2]. There is potential to recognize burnout syndrome as an occupational illness in 39% of European countries, and between 2005 and 2015, 738 participants reported having burnout syndrome in Denmark [3]. The incidence of burnout among medical practitioners in Asian nations ranges from 21.3% to 92.2% on average [4]. Healthcare workers in Pakistan have high levels of burnout, moderate levels of occupational

depression, and mild anxiety [5]. Burnout syndrome in physiotherapy was first studied by Wolfe who declared that physiotherapists were not spared from this syndrome [6]. The Maslach Burnout Inventory test results for physiotherapists from Spain also reveal a significant level (65.23) of burnout syndrome [7]. It is a psychological syndrome that is caused by inter-personnel stressors related to prolonged and hectic working hours in a hospital setting. The dimension of burnout syndrome given by Maslach is exhaustion (depletion of physical and emotional sources), a sense of inefficacy (the feeling of incapability, lack of accomplishment, and abundance in work), and cynicism (detachment and backing off from the job-related aspects) which effect work in a bad manner [1]. Among healthcare providers burnout syndrome is a prevailing



illness because of the increasing workload in these professions. Almost 10-70% of nurses, 30-50% of physicians, physician assistants, pharmacists, and nursing practitioners had burnout syndrome [8]. Burnout is mainly caused by emotional fatigue and physical exhaustion because of a shortage of staff in highly engaged hospital settings or other working areas [9]. Time pressure is also a crucial factor in getting burnout syndrome [6]. Victims of this distress highlight negative aspects instead of positive aspects of their work and also the low prognosis of the patient [2]. Therapists who are working for more than 15 years have more incidence of burnout syndrome however job satisfaction reduces the probability of getting burnout in physical therapists and other health care workers [9]. The Signs and symptoms of burnout syndrome get severe from time to time. Some of the basic as well as important symptoms initially identified in healthcare workers include loss of energy, a decreased capability to do work, inefficiency, and a loss of interest in goal orientation [9]. Few therapies are recognized as effective for treating burnout syndrome. These therapies include Psychotherapy, Cognitive therapy, Phototherapy, Physiotherapy, Adjuvant therapy, Pharmacology therapy and Complementary treatments like body-mind therapy or music therapy. Relaxation therapy, Multi-modal therapy, Meditation, and the use of psychotropic drugs e.g. antidepressants are also recognized as management procedures for burnout [10]. Physical therapists and other health care professionals need to be physically and psychologically well and fit to perform health-related duties effectively and efficiently but as burnout syndrome is prevalent among physical therapists, their duties and job performance may be compromised [11]. Due to the symptoms of BOS physiotherapists questioned their ability to do work and also questioned the choice of their career because of limited workload ability [12]. As house officers in any profession are in the beginning stage of their professional careers, the question of burnout and profession-related stress also originate among these practitioners. House officers of physical therapists are practitioners who provide a bulk of direct medical care for patients and are found to face a high level of job stress that affects their job performance in hospital settings [11]. As they extensively worked with patients in the physical therapy department, there may be a high risk of burnout syndrome in these practitioners. Burnout syndrome has been considered as one of the major occupational fortuity in physiotherapists and none of the previous studies analyzed its prevalence in physical therapy house officers who are not being paid for their work [12].

This study has aimed to find out the level and prevalence of burnout among house officers of physical therapy in an attempt to fulfill the gap. Our cross-sectional study is

conducted to provide evidence for this prevailing syndrome as well as recommendations for future studies.

## METHODS

This was a cross-sectional study, a research design in which we collected data from different individuals at a single point at a time. The study was conducted between February and July 2023 and the data were gathered through online Google forms and Social media from hospital settings of Rawalpindi/Islamabad, and directly from the physiotherapy department of the National Institute of Rehabilitation Medicine (NIRM) Islamabad after the approval from the NIRM hospital and the institutional ethical committee. Informed consent from the participants was also obtained. The Non-probability Purposive sampling technique was used for the collection of data for this study. Those participants were included who met inclusion and exclusion criteria and were available at the time of the conduction of the research. The sample size for the study was estimated to be 159 participants calculated by using the Epitool-epidemiological calculator [13]. The reference study used for sample size calculation was the study of Barone L et al., 2022 [14]. The Participants who were working as physiotherapy house officers or interns in hospitals of twin cities (Rawalpindi and Islamabad) and who were doing their house job or internship unpaid were included in the study. Those subjects who were above 35, had a chronic illness, or maintained their education in addition to their job were excluded. Data collection utilized the Maslach Burnout Inventory (MBI) questionnaire, complemented by additional demographic inquiries. The MBI comprises (22 items) divided into three sections: emotional exhaustion (9 items), depersonalization (5 items), and personal achievement (8 items) [15]. The MBI is a reliable tool for assessing burnout, particularly in professions involving interpersonal interactions [16]. Supplementary questions covered demographic variables such as age, gender, marital status, residence, duration of house job, and daily working hours. Data were analyzed using the SPSS software version 22. Descriptive statistics of gender, age, length of work of house officers, and working hours per day were made and presented in (Table 1). The analysis of burnout in the participants was made by using means and standard deviation of the 3 components of burnout and an overall mean score and standard deviation of MBI. The result is presented in tabulated form (Table 2). The results also reported the percentiles of participants who fell in moderate, low or high scores of Emotional Exhaustion (EE), Depersonalisation (DP) and Personal Accomplishment (PA) (Table 3). The interpretation of the result findings was made by criteria of low, moderate, or high level given by Maslach. High scores in emotional exhaustion (>30) and

depersonalization (>12) denote high burnout, while a low score in personal achievement (<33) indicates burnout. However, low scores in emotional exhaustion (<17) and depersonalisation (<5), and high scores in personal accomplishment (>40) denote low levels of burnout. The values between high and low scores indicate moderate levels of burnout [15].

## RESULTS

In this cross-sectional study, 168 participants were initially enrolled and assessed using the Maslach Burnout Inventory (MBI) Human Services scale. Following exclusions, 161 participants remained. A majority (64%) were aged 20-25 and all were registered house officers in Rawalpindi and Islamabad hospitals. Gender distribution showed 73% females and 26% males. Work duration revealed 79.5% of subjects working 5-10 hours/day, 6.8% over 10 hours/day, and 71.4% working 1-6 months as house officers (Table 1).

**Table 1:** Demographics of study participants

Variables	Descriptions	N (%)
Gender	Male	42 (26.1)
	Female	119 (73.9)
Age (Years)	20-25	103 (64.0)
	26-30	58 (36.0)
Working Hours Per Day	Less Than 5 Hours	22 (13.7)
	5 to 10 Hours	128 (79.5)
	More Than 10 Hours	11 (6.8)
Length of Time for Working as a House Officer	Less Than 1 Month	16 (9.9)
	1 to 6 Months	115 (71.4)
	More Than 6 Months	30 (18.6)

The burnout questionnaire comprised 22 questions, divided into emotional exhaustion, depersonalization, and personal accomplishment. Table 2 displays descriptive statistics for all factors and the overall MBI score. Emotional exhaustion had a mean of 25 (SD = 9.56, range 0-49), depersonalization had a mean of 10 (SD = 5.93, range 0-26), and personal accomplishment had a mean of 31.2 (SD = 9.45, range 3-48). The overall MBI scale mean was 66.4 (SD = 17, range 13-111) (Table 2).

**Table 2:** Descriptive Statistics: Score of Burnout in Terms of Mean and Standard Deviation

Variables	Emotional Exhaustion	Depersonalization	Personal Accomplishment	Maslach Burnout Inventory (MBI)
N	161	161	161	161
Mean ± SD	25.09 ± 9.56	10.09 ± 5.93	31.25 ± 9.45	66.43 ± 17.73
Minimum	0	0	3	13
Maximum	49	26	48	111

In summary, 35.71% of physical therapy house officers reported high burnout (EE+DP), with 43.48% reporting moderate and 20.80% reporting low overall burnout (Table 3). For emotional exhaustion, 31.60% reported high burnout, 47.20% moderate, and 21.12% reported low levels.

Regarding depersonalization, 39.75% reported high burnout, 39.75% moderate and 20.49% low levels of burnout. Additionally, on the personal accomplishment sub-scale, 55.9% reported high burnout (low PA score), 22.98% moderate, and 21.12% low burnout (high PA score). Burnout levels were analyzed using IBM SPSS v22, presenting means, standard deviations, and percentages of low, moderate, and high burnout across MBI subscales (Table 3).

**Table 2:** Percentiles of Level of Burnout on MBI Sub-Scales

Level of Burnout on MBI Sub-Scales	Emotional Exhaustion	Depersonalisation	Personal Accomplishment	Combined (Emotional Exhaustion + Depersonalisation)
	N (%)			
High Level of Burnout	51 (31.60%)	64 (39.75%)	90 (55.90%)	115 (35.71%)
Moderate Level of Burnout	76 (47.20%)	64 (39.75%)	37 (22.98%)	140 (43.48%)
Low Level of Burnout	34 (21.12%)	33 (20.49%)	34 (21.12%)	67 (20.80%)

## DISCUSSION

This cross-sectional study aimed to determine the prevalence of burnout by using the Maslach Burnout Inventory scale which consists of three parts that are emotional exhaustion, depersonalization, and personal accomplishment. The individuals in current study had an average of low levels of personal accomplishment, moderate levels of depersonalization, and moderate levels of emotional tiredness (Table 2). Personal accomplishment and burnout are inversely correlated, according to the MBI scale, therefore a low degree indicates an averagely high amount of burnout in individuals. Moreover; this study reported an overall (EE+DP) high level of burnout in 35.71%, a moderate level in 43.48%, and a low level in 20.80% of the included participants. The results of this study show that among the physical therapy house officers employed in Rawalpindi and Islamabad, burnout has moderate to high prevalence. Since most physiotherapy house officers are between the ages of 20 and 25 (Table 1), a prior study indicated that young professionals in the healthcare industry are more likely than other age groups to experience emotional exhaustion and higher levels of depersonalization [17]. This finding supports the findings of current study. Some of the results of numerous earlier investigations support our conclusions, but others don't. In contrast to current study, which found an overall moderate level of burnout in 43.48% of the sampled population, a study in Peshawar on the prevalence of burnout in physical therapists shows an overall low level in the majority of participants (37.6%) [18]. In a similar vein, a study conducted in Cyprus on the prevalence of burnout in physical therapists found that subjects experienced low to moderate levels of burnout, with only one-fifth of

participants experiencing high levels [19]. It also found that 23% of participants had high levels of PA, 17.4% had high levels of DP, and 8% had high levels of EE. However, in current study, the majority of participants (43.48%) reported having moderate levels of overall burnout. In contrast to current study, which found a higher risk of burnout in subjects for DP and EE, the level of personal accomplishment in this study is consistent with our findings. Furthermore, an investigation was carried out in the United States of America to determine the correlation between physical therapists' years of uninterrupted practice and burnout. The study found that physical therapists experienced only extremely low levels of overall burnout and moderate levels of emotional exhaustion [20]. The degree of emotional tiredness is consistent with current study, but the results of this study do not corroborate the high prevalence of burnout in current study. Another study in Poland discovered that physiotherapists who had worked for five to fifteen years did not experience burnout and that burnout increased with more years of experience [21]. Additionally, this does not match with what current study found. On the other hand, a research of Saudi Arabian respiratory therapists revealed a modest degree of depersonalization and personal accomplishment along with a significant degree of emotional weariness, with mean scores of 31.97, 11.39, and 31.58, respectively [22]. Additionally, a comparable study conducted on Saudi Arabian physical therapists found that the patients' overall level of burnout ranged from mild to high [23]. This study's mean depersonalization score is 10.6, which is the same as current study. These two research significantly enhanced the findings. Comparably, the Latavia study that looked at the prevalence of burnout in physical therapists showed mean values for emotional weariness, depersonalization, and personal accomplishment of 24.52, 7.3, and 38.32, respectively [14]. This study found that participants had an average of moderate levels of burnout overall, which is very consistent with current study's findings that participants had moderate to high levels of burnout overall. To find out how often burnout is and how it relates to demographics, another study was carried out in Brazil [24]. In this study, the majority of participants (43.8%) reported feeling moderately emotionally exhausted, 50% reported feeling moderately depersonalized, and 70.8% reported feeling highly accomplished on a personal level. The results of current study are significantly strengthened by the EE and DP scores of our investigation. Additionally, a study on the frequency of burnout syndrome in Spain conducted in the Extremadura region of Spain found that individuals had moderate to high levels of burnout [7]. The study's total mean score for burnout was 65.23, with the mean scores for EE, DP, and PA being 20.2, 7.45, and 37.7, respectively.

This study's outcome substantially reinforces and validates the conclusions we have made thus far. Another study that looked at 6,500 APTA members who practice physical therapy found that 13% of individuals had burnout and 29% had significant levels of EE. On the other hand, according to our research, 35.71% of PT house officers with an overall score of 35.71% and a high degree of EE had considerable burnout (31.6%). This outcome also lends some credence to over-research [25]. This study may contain contradictions from earlier research due to differences in inclusion criteria, study settings, and opportunities in the workplace. For example, this study found that burnout syndrome is more likely to develop in recent graduates working as unpaid house officers in physical therapy than in other types of workers. It will take more research on this high-prevalence syndrome among house officers to identify risk factors, coping mechanisms, and efficient management techniques. To avoid stress and overworking, which can result in burnout, it is advised that physical therapy professionals—specifically, house officers—should not be overworked and that staff members should be in sync with patient flow. Prevention of this syndrome is crucial in clinical settings by making the working environment better.

## CONCLUSIONS

Burnout is a psychological condition associated with the stress brought on by demanding schedules, extreme fatigue, and a sense of helplessness at work. For workers in the medical field and other fields to be in better health, early detection of burnout and good management of it are critical. The results of this study show that burnout among physical therapy house officers ranges from a moderate to high overall score (EE+DP), with 43.48% of included participants reporting a moderate level of burnout overall and 55.9% reporting a high level of burnout related to personal success. The study is beneficial to identify how often burnout occurs in healthcare settings, which will enhance the productivity of professionals working for an organization.

## Authors Contribution

Conceptualization: KN, SB

Methodology: KN, SB, RRA, MFA

Formal analysis: MFA

Writing, review and editing: MFA

All authors have read and agreed to the published version of the manuscript.

## Conflicts of Interest

The authors declare no conflict of interest.

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