

Correlation of Burnout Syndrome Severity with Sleep Quality Among Middle Aged Physiotherapist Across Ahmedabad City

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ABSTRACT

INTRODUCTION: Burn-out is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. Burnout in physiotherapists can be driven on by their intense therapeutic relationships with patients, a lack of management or peer support, a heavy workload, and tight deadlines. Academicians have a high frequency of poor sleep quality, regardless of workload or industry of employment, which can lead to burnout. Other factors that contribute to burnout include managing various instructional activities, managing research projects, completing administrative jobs, and handling other tasks. So, the aim was to correlate the severity of burnout syndrome with sleep quality among middle-aged physiotherapists across Ahmedabad city.

METHOD: An observational study was conducted on middle-aged physiotherapists across Ahmedabad city. The Pittsburgh sleep quality index (PSQI) and Maslach Burnout Inventory (MBI) were filled out by physiotherapists working in different colleges and clinics and submitted through a Google Form.

RESULT: The data was analyzed using SPSS software version 29. The normality of the data was checked by the Kolmogorov-Smirnov test, and because the data was not normally distributed, Spearman's correlation test was applied to find out the correlation between burnout syndrome severity and sleep quality. The analysis showed a weak positive correlation between sleep and burnout ($r=0.281$) & depersonalization ($r=0.254$)

and a weak negative correlation between sleep and personal achievement ($r= -0.271$).

CONCLUSION: The present study showed that sleep quality was affected in physiotherapists with higher burnout syndrome scores. It suggests that the severity of burnout affects sleep.

Keywords: Middle-aged physiotherapist, sleep quality, Pittsburgh sleep quality index (PSQI), and Maslach Burnout Inventory (MBI).

INTRODUCTION

Sleep is essential for a variety of bodily functions, including recovery, pain management, cardiovascular health, controlling anxiety and depression, cognitive development, and learning and

memory. Reduced workplace productivity is triggered on by lack of sleep and various sleep disorders. ^[1] A negative psychological experience called burnout, which includes feeling emotionally, mentally and physically drained for a long time until you move

beyond fatigue and into a condition of feeling numb results into negativity, a loss of personal accomplishment, and depersonalization. Burnout, according to Maslach and Jackson (1981), has three characteristics: A psychological inability to cope, also known as emotional exhaustion. This is the main feature of burnout. Depersonalization: The emergence of unfavorable and cynical attitudes towards clients that make them appear to be inhumane.^[2] Lack of personal accomplishment: The tendency to negativity with regard to achievements with clients.^[2] Burnout is more regularly experienced by those working with individuals who are sick, upset and restless about their therapeutic condition and its inconveniences.^[3] This group consists of volunteers, clinicians, social workers, physiotherapists, and therapeutic professionals. Physical stressors are the source of irregular physical effort. They were commonly linked by inadequate hiring, excessive work hours, and poor management amongst multiple departments, leading to stress.^[4] Maslach and colleagues define burnout as a combination of three dimensions, emotional exhaustion (e.g., overwhelming exhaustion), depersonalization (e.g., cynicism, detachment), and low sense of personal accomplishment (e.g., ineffectiveness).^[5-6] Burnout also has a number of detrimental effects on one's health, including coronary heart disease, musculoskeletal pain, type 2 diabetes, mental health problems, suicidal ideation, drug abuse, and sleep abnormalities.^[7-10] While sleep disorders are critically linked to burnout.^[11-12] Poor sleep is linked with a wide range of health challenges, such as depression, anxiety, alcoholism, and suicidal thoughts.^[13-14] The quantity and quality of sleep have an impact

on a person's capacity to handle emotional challenges, especially painful circumstances.^[14] The study concerning burnout syndrome with sleep quality among middle aged professionals is insufficient, as there is also lack of reliable evidence concerning consequences of sleep quality for physiotherapists. So, the present study aims to evaluate Correlation of burnout syndrome severity with sleep quality among middle aged physiotherapist across Ahmedabad city.

MATERIALS & METHODS

This Cross-sectional observational study was conducted in Ahmedabad city. Physiotherapist were included as per the inclusion and exclusion criteria. The study included middle aged Physiotherapists who worked in academic, outpatient, and private clinic settings with the age between 35 to 64 years both males and females. Subjects with less than a year of work experience and those willing to participate in the study were excluded. All the physiotherapists were explained about the study and consent was taken for those who were willing to participate. A total of 87 such subjects were asked to fill a self-administered questionnaire as Google forms which were circulated through WhatsApp. The Maslach Burnout Inventory Questionnaire for burnout syndrome and The Pittsburgh Sleep Quality Index Questionnaire for sleep quality.

The Maslach Burnout Inventory (MBI) is a widely used questionnaire designed to assess burnout in individuals. It consists of three subscales that measure different dimensions of burnout 1. Emotional Exhaustion 2. Depersonalization 3. Personal Accomplishment. A high score in first two sections and low score in last section indicate burnout. Test-retest

reliability was strong and three subscales have high internal consistency with Cronbach's coefficient values of 0.837, 0.869, and 0.881. [15]

The Pittsburgh Sleep Quality Index Questionnaire for sleep quality, widely used questionnaire designed to assess sleep quality and disturbances over a one-month time period. The PSQI consists of 19 items that cover different aspects of sleep. Participants rate each item based on their experiences during the past month. The scoring of the PSQI results in seven component scores: Subjective sleep quality, Sleep latency, Sleep duration, Habitual sleep efficiency, Sleep disturbances, Use of sleep medication, Daytime dysfunction. Each component score ranges from 0 to 3, with higher scores indicating worse sleep quality or more sleep disturbances. The PSQI had an acceptable reliability with Cronbach's alpha value of 0.736. [16]

RESULT

The data analysis was performed using SPSS software version 29. The Kolmogorov-Smirnov test was conducted to assess the normality of the data, which revealed that the data was not normally distributed. Therefore, Spearman's correlation test was chosen to examine the correlation between burnout syndrome severity and sleep quality.

The significant p-value which was taken into consideration for the study was <0.05. The results of the analysis showed a weak significant positive correlation found between sleep and burnout (r value=0.281, p value= 0.001), sleep and Depersonalization (r value=0.254, p value=0.001), and a weak significant negative correlation between Sleep and Personal Achievement (r value = -0.271, p value= 0.001), among middle-aged physiotherapists. (Table I)

Table I: - Mean and r values of sleep and subscales of burnout syndrome.

| Spearman's correlation | MEAN | r-value | p-value |
|------------------------|--------|---------|---------|
| SLEEP | 12.66 | 1.000 | .001 |
| BURNOUT | 25.069 | 0.281 | .001 |
| DEPERSONALIZATION | 14.264 | 0.254 | .001 |
| PERSONAL ACHIEVEMENT | 31.64 | -0.271 | .001 |

DISCUSSION

The results of the present study indicate that there is a weak positive correlation between sleep and burnout as well as depersonalization, meaning that as burnout and depersonalization increase, sleep quality tends to decline. Additionally, there is a weak negative correlation between sleep and personal achievement, suggesting that as personal achievement decreases, sleep quality also tends to worsen. When individuals experience higher levels of burnout and depersonalization, they may have more difficulty sleeping well. This could be due to various factors such as increased stress, anxiety, or an inability to disconnect from work-related thoughts and responsibilities. The negative correlation between sleep and personal achievement implies that individuals who struggle with achieving their goals or experiencing success may also have poorer sleep quality. It is possible that factors such as stress, worry, or a lack of fulfillment contribute to sleep disturbances in this population.

Study conducted by Kowalska et al. Prior to the pandemic, studies had shown that physiotherapists were more exposed to psychosocial occupational risks, which can lead to generalized stress and a higher level of occupational burnout. [17] also Piwnik et al. found in their study strong relationship between the selected demographic and organizational characteristics and the degree of occupational burnout among physiotherapists. [18] Youssef et al. presented several findings from a study on medical staff members working in Egyptian

hospitals under quarantine, emphasizing that younger employees were more likely to experience unpleasant mental symptoms. Additional research on Egyptian primary healthcare workers revealed that a significant percentage of participants had signs of depression, stress, insomnia, and anxiety. [19] It should be noted that prolonged exposure of physiotherapists to highly stressful situations at work can significantly affect the development of occupational burnout. It has been shown that there is a link between occupational stress and burnout, proving that the cumulative effects of stress can result in burnout. [20]

Jácome et al. found that when comparing the data to international studies that concentrated on physiotherapists, it was possible to observe that burnout levels had been documented previous to the COVID-19 pandemic at slightly lower levels. They emphasize that the amount of burnout was already severe even before the pandemic, with roughly 10 to 20% of physiotherapists exhibiting signs of severe burnout. and with 30 to 50% facing a high risk of developing it. [21] Another study by Bertrais S. et al. demonstrates that high-stress workplace environments enhance the susceptibility to insomnia as well as the reactivity of sleep. Additional consideration should be given to the cognitive and emotional demands at the workplace that have been linked to sleep problems. [22] Armon et al. conducted study in 2008 they found that two studies using prospective designs indicated a connection between self-perceived burnout and insomnia, but the findings were not conclusive. [23]

CONCLUSION

The study on physiotherapists found a significant link between burnout severity

and poorer sleep quality. As burnout levels increased, sleep disturbances became more prominent. These results underscore the need to address burnout to improve sleep outcomes. Future research with larger sample sizes, broader geographical coverage, and consideration of gender differences would enhance our understanding of this relationship. This knowledge can guide the development of targeted interventions to alleviate burnout, enhance sleep quality, and promote overall well-being among professionals.

Declaration by Authors

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