# ABSTRACT

- **Background**: Physiotherapy students are subject to rigorous academic and clinical training leading to perceived elevated stress which can adversely affect physiological recovery including sleep. The present study was conducted with the aim to study the relationship between perceived academic stress and sleep quality among Bachelor of Physiotherapy (BPT) students of different years of study in Brainware University.
- **Methodology:** A cross-sectional observational study was conducted on 131 BPT undergraduate students (69 male, 62 female) at Brainware University, Barasat, West Bengal, during the academic year 2025–2026, recruited via convenience sampling. Perceived stress was assessed using the Perceived Stress Scale (PSS-10; low ≤13, moderate 14–26, high >26) and sleep quality was measured using the Pittsburgh Sleep Quality Index (PSQI; poor sleeper: >5). Normality was assessed via the Shapiro–Wilk test. Spearman's rank-order correlation served as the primary inferential statistic; Kruskal–Wallis H-test compared PSQI scores across stress categories; between-year differences were evaluated using one-way ANOVA and Kruskal–Wallis; gender comparisons were conducted using the Mann–Whitney U test.
- **Results:** The majority of participants reported moderate stress (79.4%), and 48.1% were classified as poor sleepers. A statistically significant moderate positive correlation was found between PSS-10 and PSQI scores overall (Spearman $\rho = 0.470$, $p < 0.001$). Significant correlations were observed in Years 1–3 ($\rho = 0.492$–$0.599$, $p < 0.01$), but not in Year 4 ($p = 0.887$). A significant dose-response relationship was established across stress categories (KW $H = 11.99$, $p = 0.003$). Female students reported significantly higher perceived stress than males ($p = 0.012$).
- **Conclusion**: The results show that the perceived academic stress has a negative impact on the sleep quality of BPT students with the increase of training years. The findings indicate the need for year-specific, institutionally integrated interventions that address sleep hygiene, stress management and the general well-being of physiotherapy education students.



- **Key words :** *Perceived stress, sleep Quality, Physiotherapy student, PSS-10, PSQ*

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