



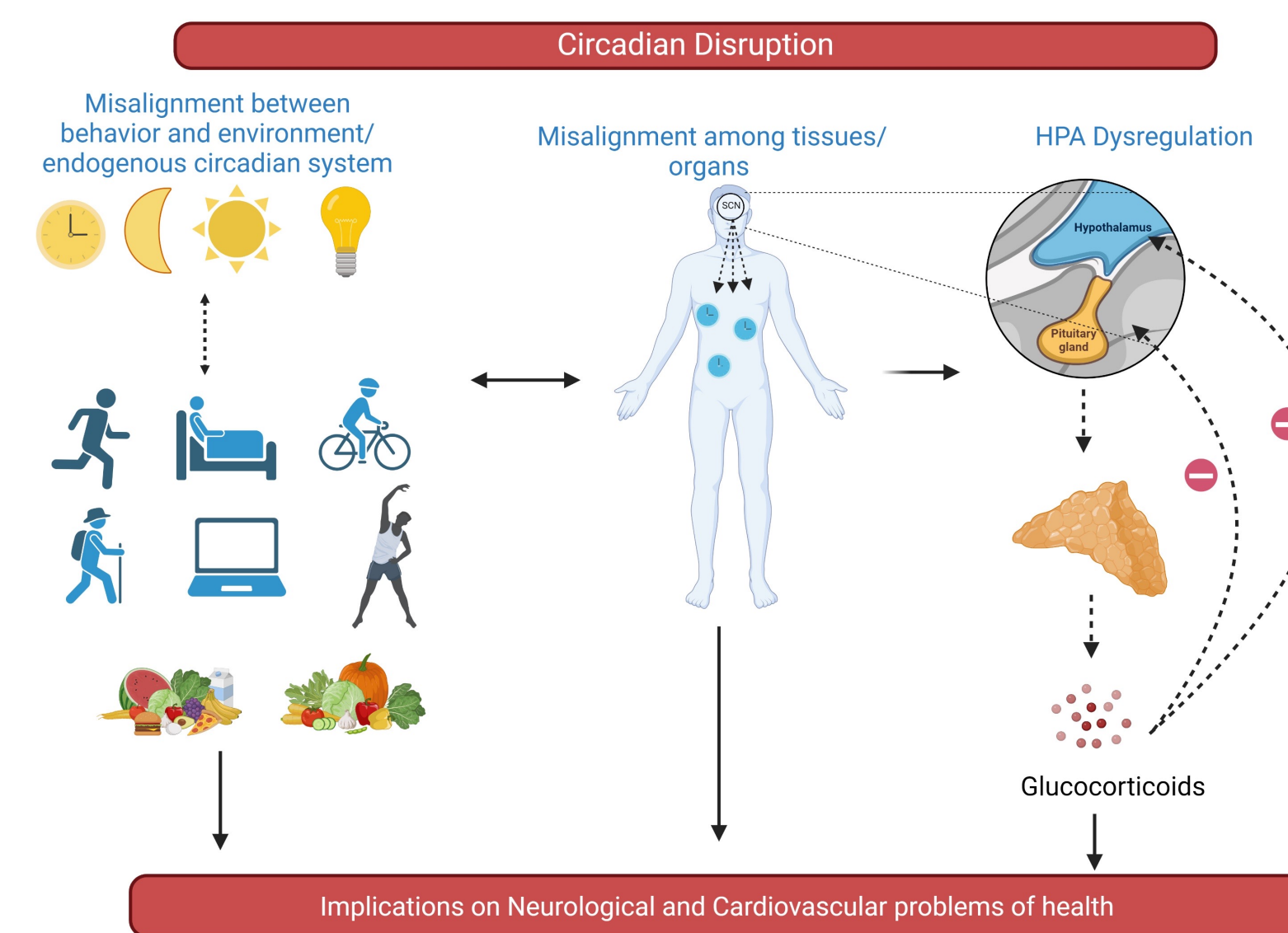
Impact of Shift Work on Perceived Stress and the Propensity for Shift Work Disorder

Objective: Working in odd shifts has been linked to disruptions in sleep, mood, and perceived stress, while also increasing susceptibility to future neuropsychiatric complications. However, the specific impact of shift work on perceived stress and the propensity for shift work disorder remains relatively understudied. Additionally, gender differences in stress response within the context of shift work are not fully understood. This study aims to address these gaps by investigating the relationship between shift work and perceived stress levels, with a focus on gender-specific responses.

Methods: Perceived stress among shift workers was assessed through a cross-sectional study involving 73 participants. Participants completed self-report measures, including the Perceived Stress Scale-10 (PSS-10), Shift Work Disorder Index (SWDI), and a sociodemographic questionnaire. Data analysis was performed using ANOVA and regression models with the StatView analytical software. The study was approved by Institutional review board of NDMU.

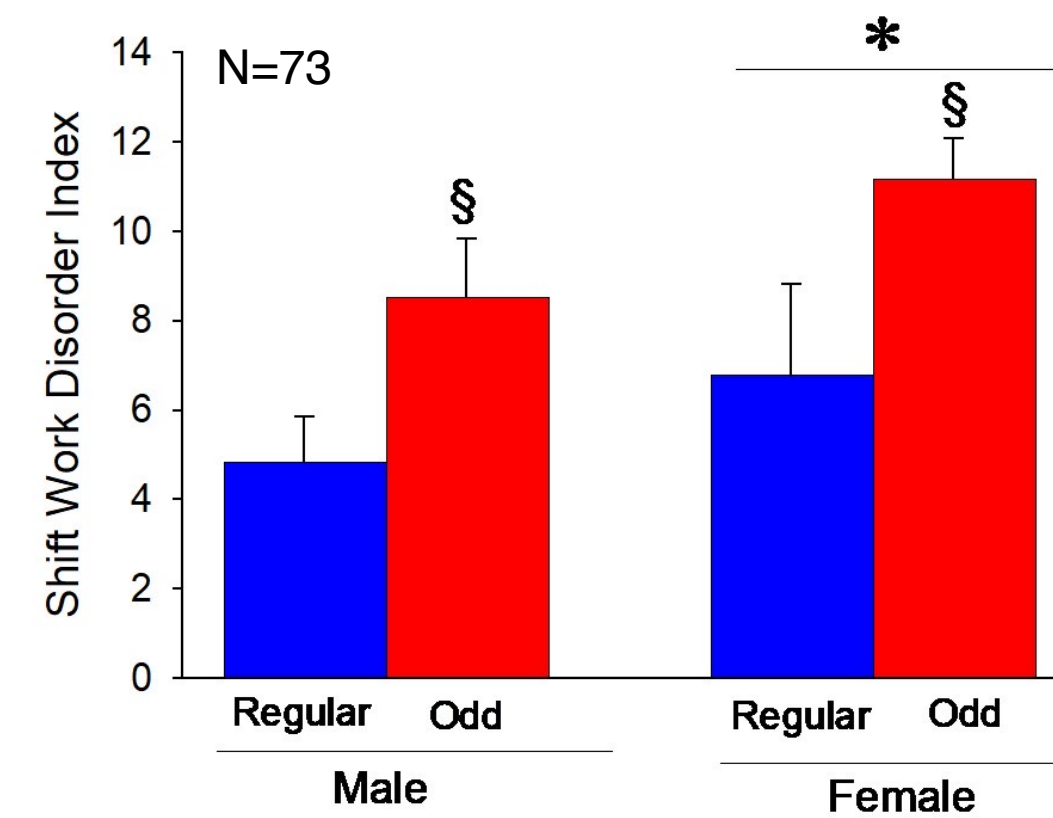
Results: Female workers showed significantly higher SWDI scores compared to male workers [$F(1,69) = 3.80, p < 0.05$], with odd shift workers displaying higher SWDI scores compared to regular shift workers [$F(1,69) = 4.70, p < 0.05$]. Additionally, female workers experienced significantly higher levels of perceived stress compared to males [$F(1,67) = 7.63, p < 0.05$]. Specifically, female odd shift workers reported the highest perceived stress levels compared to their counterparts in regular shifts and male workers in both odd and regular shifts [$F(1,67) = 4.70, p < 0.05$]. Furthermore, a positive correlation was found between the number of shift hours per day and perceived stress, indicating that longer shifts were associated with increased stress levels [$\beta = 0.26, t = 2.25, R^2 = 0.07, F = 5.07, p < 0.05$] and SWDI score [$\beta = 0.43, t = 4.11, R^2 = 0.19, F = 16.9, p < 0.05$]. These findings underscore the importance of considering gender differences and shift schedules in managing stress among workers in non-traditional work settings.

Working Hypothesis

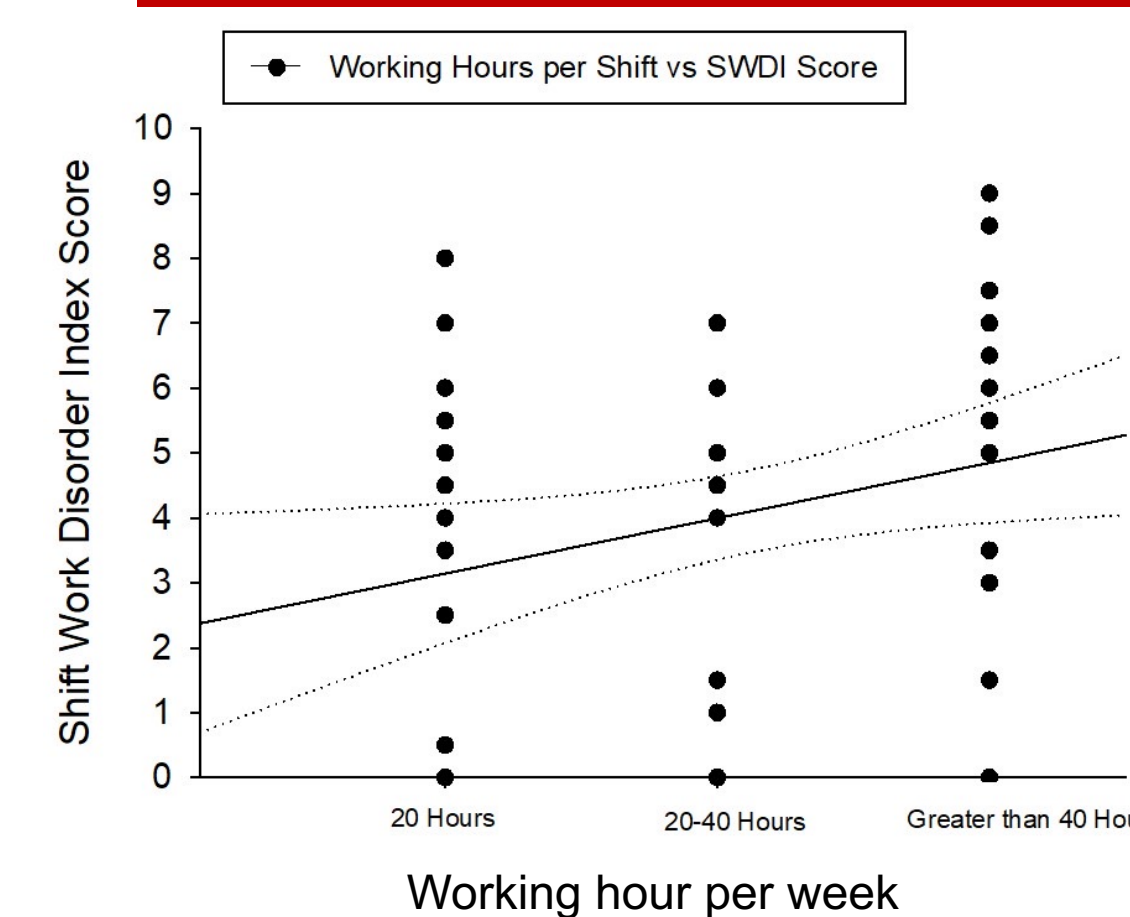


Results

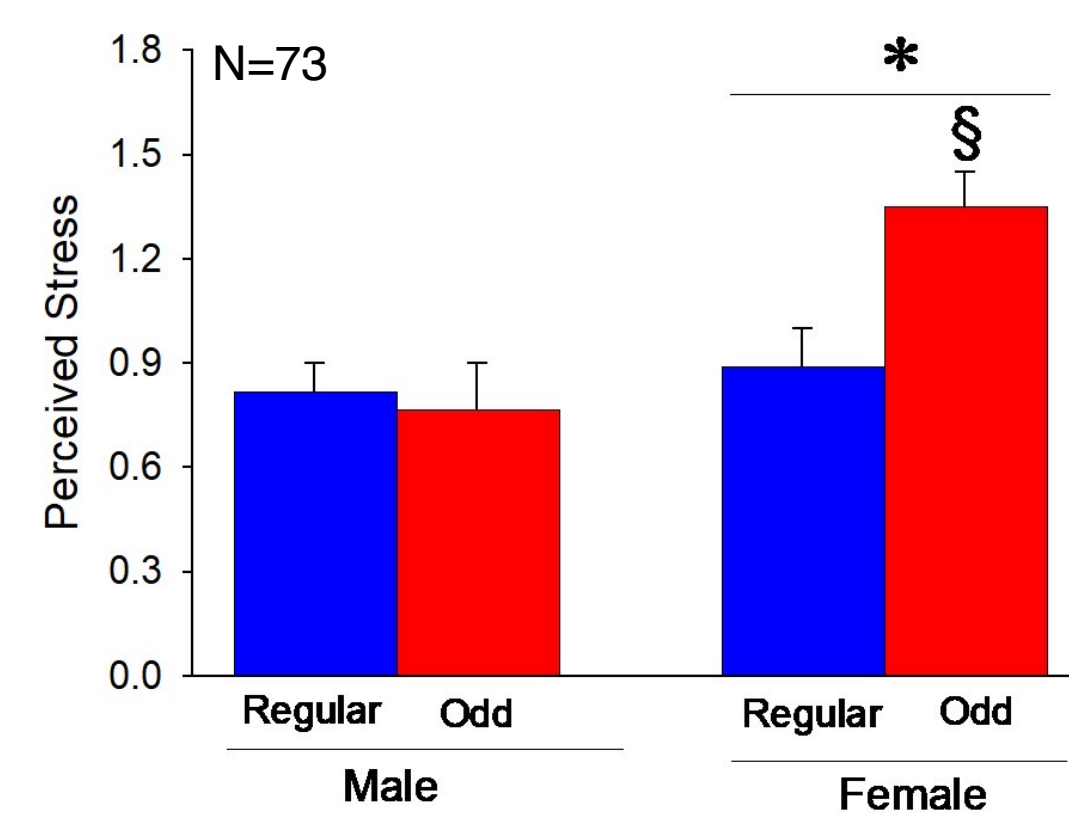
Female workers in odd shift hours exhibited greater shift work disorder index scores



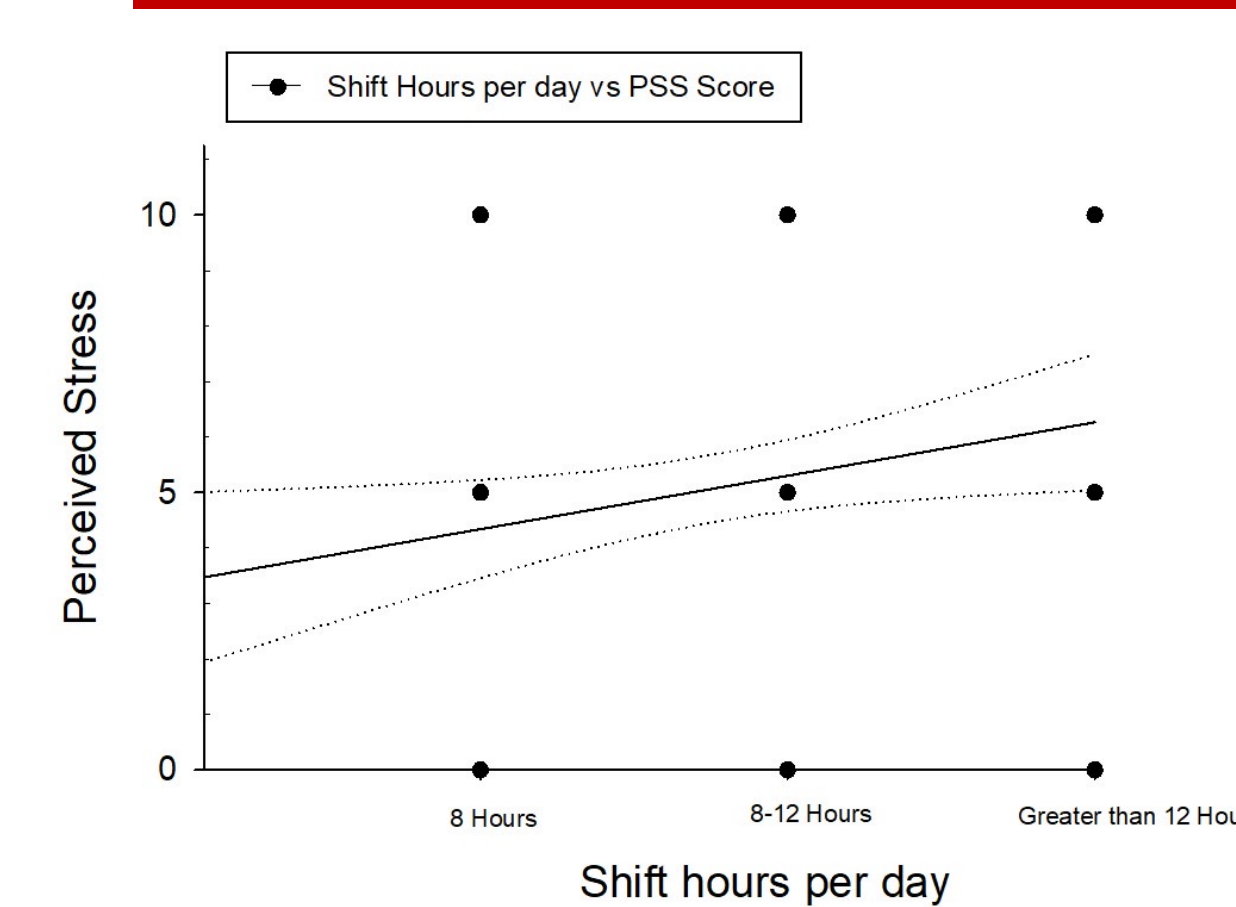
Greater number of working hours per week exhibited significantly higher shift work disorder score



Female workers in odd shift hours exhibited greatest perceived stress



Greater number of shift hours per day exhibited significantly higher perceived stress



Conclusion

- Female workers reported higher perceived stress levels than males.
- Female odd shift workers reported the highest perceived stress levels.
- Female workers reported higher SWDI scores than male workers.
- Longer shifts were associated with increased stress levels and SWDI score.
- The study emphasizes the need to consider gender differences and shift schedules in managing stress in non-traditional work settings.

Future Directions

Future research should delve into the mechanisms underlying gender-specific stress responses in shift work, explore longitudinal associations between shift schedules and stress, evaluate interventions like mindfulness programs, and integrate objective stress measures. Tailored strategies can enhance well-being and productivity among shift workers, especially females.

Literature cited

- Torquati L, et al. Shift Work and Poor Mental Health: A Meta-Analysis of Longitudinal Studies. Am J Public Health. 2019
- Chiang SL, Chiang LC, Tzeng WC, Lee MS, Fang CC, Lin CH, Lin CH. Impact of Rotating Shifts on Lifestyle Patterns and Perceived Stress among Nurses: A Cross-Sectional Study. Int J Environ Res Public Health. 2022

Acknowledgments

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