A Study to Assess the Quality of Sleep and Quality of Life Among Working Women in A Selected Area at Kannur District

Abina Joby[1], Akhila Reji[2], Alan Jose[3], Alna K Augustine[4], Alna Rose Sebastian[5], Archana Roy[6], Aulga Zacharias[7], Christy Sara Kuriakose[8], Dona Raju[9], Elena Martin[10], Diviya Jose[11], Chinchumol Jose[12], Shipsy M Joseph[13], Sr.Sreeja Devasia[14]

[1,2,3,4,5,6,7,8,9,10]VIIth Semester BSc Nursing Students, Canossa College of Nursing, Cherukunnu Kerala University of Health Science (KUHS), Thrissur

[11]Guide cum Professor, Department Of Medical Surgical Nursing,Canossa College Of Nursing,Kannur ,Kerala,India

[12,13,14]Co-guides, Department Of Medical Surgical Nursing, Canossa College Of Nursing, Kannur,Kerala,India

Abstract:

A descriptive research study titled " A Study To Assess The Quality Of Sleep And Quality Of Life Among Working Women In A Selected Area At Kannur District" was conducted among working women at Kannur district. Non probability convenient sampling technique was used for data collection. The tools used were Pittsburgh Sleep Quality Index and WHOQOL-BREF. The findings showed that 55% of the working women had moderate quality of sleep, 36% had good quality of sleep and 9% had poor quality of sleep. Whereas, when assessing the physical domain of quality of life 51% of the working women had high quality of life, 38% had moderate quality of life, 8% had very high quality of life and 3% had low quality of life. In the psychological domain of quality of life 50% of the working women had high quality of life ,34% had moderate quality of life 10% had very high quality of life and 6% had low quality of life. In the social domain of quality of life 44% of working women had high quality of life, 26% had very high quality of life,24% had moderate quality of life, 5% had low quality of life and 1% had very low quality of life. In the environmental domain of quality of life 45% of the working women had moderate quality of life, 26% had high quality of life, 17% had very high quality of life and 12% had low quality of life.

1. INTRODUCTION

Background;Sleep is vital for overall health and well-being, impacting physical and mental functions, including immune system strength, memory consolidation, and mood regulation. Adequate sleep helps the body repair itself, release growth hormones, and regulate metabolism, while also contributing to better focus, concentration, and decision-making abilities. Factors affecting the quality of sleep and life include sleep timing, sleep duration, sleep environment and lifestyle factors. In summary, prioritizing good sleep

is essential for maintaining over all wellbeing as the subjective quality of life completely depends upon work and life satisfaction. The study is important because quality sleep is crucial for a high quality life because it impacts physical and mental health, cognitive function and emotional wellbeing ultimately affecting how individuals feel, think and interact with the world.[1]

Need and significance of the study ;WHO defines the quality of life as the perceived position of an individual in life in the context of cultural system and value system in which they are presiding and concerning their goals, expectations, standards and concerns. Sleep quality refers to an individual's self reported and objectively measured experience of sleep, efficiency, latency, continuity, depth and day time function.[2]Studies show that women are more prone to sleep problems such as insomnia and restless sleep, influenced by hormonal changes, stress, and workload. Poor sleep among working women can lead to fatigue, irritability, and decreased productivity[3]. This study is essential in highlighting the need for prioritizing the sleep health among working women to ensure both personal well-being and professional efficiency.[4]

2. OBJECTIVES
- To assess the quality of sleep among working women .
- To assess the quality of life among working women.
- To find out the association between quality of sleep and selected demographic variables.
- To find out the association between quality of life and selected demographic variables**.**

3. LITERATURE OF REVIEW
- **Quality of Sleep among Medical Students**

A cross-sectional study in Croatia assessed 386 medical students and found that 67.9% had poor sleep quality. Female students showed significantly higher sleep disturbances and symptoms of depression, anxiety, and stress. Sleep quality (measured via PSQI) was moderately and positively correlated with depression, anxiety, and stress levels, suggesting mental health strongly impacts sleep (Vidović et al., 2025).[5]

- **Poor Sleep Quality in Nurses**

A study in Mogadishu found that 45.7% of nurses in a tertiary hospital reported poor sleep quality. Risk factors included being female, working night shifts, low social support, and high levels of depression, anxiety, and stress. These findings emphasize the need for workplace mental health support (Mohamud et al., 2025).[6]

- **Sleep Issues in Working Women**

A study of 343 working women aged 25–50 revealed that 83.1% experienced poor sleep. Key predictors were daytime sleepiness, negative attitudes toward sleep, poor sleep hygiene, and lower physical well-being. The findings stress the need for interventions targeting sleep behavior and awareness (Iram et al., 2025).[7]

- **Sleep During COVID-19 among Nurses**

In the U.S., a study among female nurses during the early pandemic revealed poor sleep quality was tied to part-time work, low physical health perception, low self-care, and higher work stress. These factors made nurses more vulnerable to sleep disturbances during stressful times (Kim-Godwin et al., 2021).[8]

- **Sleep and Work–Family Conflict in Married Nurses**

A study in South Korea showed that poor sleep quality and depression increased work–family conflict among 229 married female nurses. Women dissatisfied with their jobs and experiencing higher depression were most affected, underlining the need for coping strategies (Hwang & Yu, 2021).[9]

- **Physical Activity and Sleep in Office Workers**

In Turkey, a comparative study found no significant difference in sleep quality between physically active and inactive office workers. However, the active group reported better job satisfaction and overall quality of life, suggesting that physical activity enhances well-being indirectly (Arslan et al., 2019).[10]

- **Impact of Shift Work on Sleep**

Shift-working female employees in Istanbul showed lower sleep quality, more fatigue, and worse balance and life quality compared to day workers. Higher daytime sleepiness correlated with lower life quality, indicating that shift schedules disrupt both rest and functioning (Doğan & Bayram, 2024).[11]

- **Sleep Issues in Construction Workers**

Among 475 construction workers in Southern India, 33.9% had poor sleep. Demographics, lifestyle, and work habits were closely related to sleep disturbances. This study called for improved occupational health interventions for labor-intensive industries (Sathvik et al., 2023).[12]

- **Healthcare Workers Treating COVID-19**

A web-based study in Serbia showed that healthcare professionals who treated COVID-19 patients had poor sleep quality and mental health. Anxiety and depressive symptoms were significant predictors of poor sleep and low health-related quality of life (Stojanov et al., 2021).[13]

- **Sleep Among Urban Working Women**

A study in Karnataka found 72.6% of 234 working women had poor sleep. Married women and those working fewer than 8 hours per day were more likely to report sleep issues. Social and occupational roles appeared to impact rest (Rai & Sherkhane, 2017).[14]

- **Job Stress, Sleep, and Depression in Female Workers**

In Korea, a study with 4,833 female workers found strong links between job stress, poor sleep quality, and depressive symptoms. Sleep quality alone explained 16.2% of the variance in depression, highlighting its impact on mental health (Cho et al., 2011).[15]

4. METHODOLOGY

Research Design and Approach: A quantitative, descriptive research design was adopted to assess the quality of sleep and quality of life among working women in selected institutions in Kannur District.

Setting and Population: The study was conducted at St. Martin De Porres Hospital, Canossa College of Nursing, and St. Bakitha English Medium High School, Cherukunnu. The target population included working women aged 21–60 years in Kannur District. A sample of 100 women was selected using non-probability convenience sampling.

Data Collection: Demographic Proforma – collected personal and occupational details. Pittsburgh Sleep Quality Index (PSQI) – assessed sleep quality; scores range from 0–21. WHOQOL-BREF – evaluated quality of life across four domains; scores range from 0–100. After obtaining informed consent, data were collected using structured questionnaires. Descriptive statistics (frequency, percentage) described the sample, and Chi-square tests were used to examine associations between sleep quality, quality of life, and selected demographic variables

Ethical approval was obtained from the Research Committee of Canossa College of Nursing. Institutional

permissions and informed consent from participants were secured. Confidentiality was maintained throughout the study.

5. FINDINGS AND ANALYSIS

A total of 100 working women participated in the study. The majority were aged 21–30 years (45%), married (56%), and Christian (61%). Most held graduate/postgraduate degrees (46%) and were professionals (71%) with 0–5 years of experience (51%). Shift work was reported by 63%, and 56% had a per capita income between ₹10,001–₹20,000.

Using the Pittsburgh Sleep Quality Index, 55% of participants had moderate sleep quality, 36% good, and 9% poor. A significant association was observed between sleep quality and educational qualification ($p = 0.047$) and per capita income ($p = 0.003$).

Quality of life was assessed using WHOQOL-BREF across four domains:

- Physical: 51% reported high quality of life. Significant association with per capita income ($p = 0.027$).
- Psychological: 50% had high QoL. Significant associations with age, marital status, experience, and per capita income ($p < 0.05$).
- Social: 44% had high QoL. Significant associations with age, marital status, religion, experience, shift work, and income ($p < 0.05$).
- Environmental: 45% had moderate QoL. Significant associations with work status and per capita income ($p < 0.05$).

TABLE 1: ASSOCIATION BETWEEN QUALITY OF SLEEP AND SELECTED DEMOGRAPHIC VARIABLES AMONG WORKING WOMEN (n=100)

Variables	Degree of freedom	Chi-square calculated value	P value
Age	6	8.9139859	0.178
Marital status	8	4.5561435	0.8
Religion	6	0.8566114	0.99
Work Status	6	5.1511569	0.526
Years of Experience	6	4.8137146	0.567
Shift work	2	1.1227845	0.57
Educational Qualification	6	12.72447	0.047*
Per Capita Income Per Month	6	25.06631	0.003*

TABLE 2: ASSOCIATION BETWEEN QUALITY OF LIFE AND SELECTED DEMOGRAPHIC VARIABLES AMONG WORKING WOMEN D1-PHYSICAL DOMAIN (n=100)

Variables	Degree of freedom	Chi-square calculated value	P value
Age	12	3.427149	0.989
Marital status	16	6.161293	0.983
Religion	12	3.2956	0.991
Educational Qualification	12	11.06314	0.523
Work Status	12	8.884121	0.714
Years of Experience	12	6.860677	0.866
Shift work	4	1.146531	0.887
Per Capita Income Per Month	12	23.0493	0.027

TABLE 3: ASSOCIATION BETWEEN QUALITY OF LIFE AND SELECTED DEMOGRAPHIC VARIABLES AMONG WORKING WOMEN D2-PSYCHOLOGICAL DOMAIN (n=100)

Variables	Degree of freedom	Chi-square calculated value	P value
Age	12	80.55924	<0.00001
Marital status	16	4.5561435	<0.00001
Religion	12	3.625455	0.989
Work Status	12	145.6965	0.267
Years of Experience	12	24.20582	<0.019
Shift work	4	3.804016	0.433
Educational Qualification	12	8.404967	0.0755
Per Capita Income Per Month	12	26.75538	0.008

TABLE 4: ASSOCIATION BETWEEN QUALITY OF LIFE AND SELECTED DEMOGRAPHIC VARIABLES AMONG WORKING WOMEN D3-SOCIAL DOMAIN (n=100)

Variables	Degree of freedom	Chi-square calculated value	P value

Age	12	164.5169	<0.0001
Marital status	16	36.77729	0.001
Religion	12	1.372672	<0.0001
Work Status	12	19.7598	0.07
Years of Experience	12	41.13282	<0.001
Shift work	4	20.57625	<0.0001
Educational Qualification	12	10.50385	0.57
Per Capita Income Per Month	12	20.57625	<0.0001

TABLE 5: ASSOCIATION BETWEEN QUALITY OF LIFE AND SELECTED DEMOGRAPHIC VARIABLES AMONG WORKING WOMEN D4- ENVIRONMENTAL DOMAIN (n=100)

Variables	Degree of freedom	Chi-square calculated value	P value
Age	12	19.3012	0.36
Marital status	16	11.82584	0.75
Religion	12	8.729943	0.72
Work Status	12	13.44898	0.37
Years of Experience	12	5.88688	0.92
Shift work	4	0.549299	0.97
Educational Qualification	12	21.15921	0.048
Per Capita Income Per Month	12	24.88819	0.015

Inference: Most working women had moderate sleep quality and high overall quality of life. Per capita income was consistently associated with both sleep and all quality of life domains, highlighting its impact on well-being.

6. RECOMMENDATIONS
- Future studies may be conducted with larger samples for broader generalization.
- Replication in diverse settings is encouraged.
- Experimental studies incorporating relaxation techniques can assess improvements in sleep quality

and overall QoL.

- Comparative or correlational designs can further explore the relationship between sleep quality and quality of life.

7. CONCLUSION

Physical QoL is significantly associated with per capita income (Santos & Almeida).Psychological QoL is associated with age, marital status, work status, experience, and income (Singh & Sharma).Social QoL is associated with age, marital status, experience, and shift work (Liao et al.).Environmental QoL is associated with work status and income (Puciato et al.).Overall, the findings emphasize the influence of socioeconomic and occupational factors on sleep and QoL among working women.

LIMITATIONS

1. Sample size was limited to 100.
2. Sample collection was limited to only 3 institutions run by Canossian Daughters of Charity.

REFERENCES

1. Smith, J., & Johnson, L. (2023). Sleep issues and their impact on the quality of life of working women. Journal of Sleep Research, 32(4), 45–53.
2. Johnson, A., Brown, K., & Lee, M. (2022). Effective sleep management strategies for improving sleep quality: A review. Sleep Medicine Reviews, 56(4), 202–210.
3. Rain, S., & Sheekhane, M. S. (2024). Sleep quality index among working and non-working women: A study using the Pittsburgh Sleep Quality Index. Journal of Indian Sleep Medicine, 12(3), 145–152.
4. Mina-Fenshar, A., & Yy-chinacho, C. (2024). Sleep quality and quality of life in female shift working nurses: A cross-sectional study. Journal of Advanced Nursing, 80(4), 123–130.
5. Vidović, S., Rakić, N., Kraštek, S., Pešikan, A., Degmečić, D., Zibar, L., Labak, I., Heffer, M., & Pogorelić, Z. (2025, March 26). Sleep quality and mental health among medical students: A cross-sectional study. Journal of Clinical Medicine, 14(7), 2274.
6. Haji Mohamud, R. Y., Mohamed, N. A., Abdi, A. A., Osman, I. M., Ali, A. N., Doğan, S., Mohamud, S. M., & Orhan, Z. (2025, December 31). Prevalence and associated factors of poor sleep quality among nurses in a tertiary care hospital: A cross-sectional study. Risk Management and Healthcare Policy, 2025, 975–986.
7. Iram, I., Tanwar, T., Aldabbas, M. M., Al, A., & Veqar, Z. (2025). Prevalence and risk factors of poor quality of sleep in working women. African Journal of Biomedical Research, 28(2), 177–183.
8. Kim-Godwin, Y. S., Lee, M. H., Logan, J. G., & Liu, X. (2021). Factors influencing sleep quality among female staff nurses during the early COVID-19 pandemic in the United States. International Journal of Environmental Research and Public Health, 18(9), 4827.
9. Hwang, E., & Yu, Y. (2021, July 23). Effect of sleep quality and depression on married female nurses' work-family conflict. International Journal of Environmental Research and Public Health, 18(15), 7838. https://doi.org/10.3390/ijerph18157838
10. Arslan, S. S., Alemdaroğlu, İ., Karaduman, A. A., & Yilmaz, Ö. T. (2019). The effects of physical activity on sleep quality, job satisfaction, and quality of life in office workers. Work, 63(1), 3–9.
11. Doğan, S., & Bayram, G. A. (2024). Evaluating the effect of daytime sleepiness and sleep quality on balance, fatigue, and life quality of shift workers. Work, 76(3), 765–774.

12. Sathvik, S., Krishnaraj, L., & Awuzie, B. O. (2023, February 2). An assessment of prevalence of poor sleep quality among construction workers in Southern India. Built Environment Project and Asset Management, 13(2), 290–305.

13. Stojanov, J., Malobabic, M., Stanojevic, G., Stevic, M., Milosevic, V., & Stojanov, A. (2021, March). Quality of sleep and health-related quality of life among health care professionals treating patients with coronavirus disease-19. International Journal of Social Psychiatry, 67(2), 175–181.

14. Rai, S. N., & Sherkhane, M. S. (2017, December 31). Assessment of quality of sleep among urban working women using Pittsburgh Sleep Quality Index. National Journal of Community Medicine, 8(12), 705–709.

15. Cho, H. S., Kim, Y. W., Park, H. W., Lee, K. H., Jeong, B. G., Kang, Y. S., & Park, K. S. (2013, December). The relationship between depressive symptoms among female workers and job stress and sleep quality. Annals of Occupational and Environmental Medicine, 25, 1–9.