



## The interaction between sleep quality and mental wellbeing in night shift workers: a case study with a qualitative approach

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p>Received Sept 01, 2023 Revised Sept 03, 2023 Accepted Sept 04, 2023</p> <hr/> <p><b>Keywords:</b></p> <p>Coping Strategies; Mental Wellbeing; Night Shift Workers; Sleep Environment; Sleep Quality.</p>	<p>Night shift workers face unique challenges related to unconventional sleep patterns, which can have a significant impact on their mental well-being. In this context, this study aims to explore the impact of sleep quality on the mental well-being of night shift workers through a qualitative approach. Through an in-depth analysis of the individual experiences of 10 night shift workers with varying backgrounds, ages, genders, and work experiences, this study analyzed the challenges faced, coping strategies used, and broader implications regarding sleep quality and mental well-being. The results showed that night shift workers faced diverse challenges in maintaining sleep quality, including disrupted sleep patterns, jet lag, and work schedule uncertainty. However, these individuals adopted various coping strategies, such as maintaining a regular sleep routine, avoiding caffeine consumption in the evening, and applying relaxation techniques before bed. A supportive sleep environment, such as appropriate lighting and sleep comfort, also plays an important role in maintaining sleep quality. Implications of these findings include the need for management and organizational support in creating a work environment that supports quality sleep. This support may include stress management programs, psychological support, and schedule flexibility. In addition, this study contributes to our understanding of the interactions between sleep quality, circadian rhythms and mental well-being. The practical and academic implications of these findings may assist in the development of more effective interventions or support programs for night shift workers.</p> <p style="text-align: right;"><i>This is an open access article under the <a href="https://creativecommons.org/licenses/by-nc/4.0/">CC BY-NC</a> license.</i></p>



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### 1. Introduction

Night shift work is an increasingly common reality across various industry sectors (Rahman & Pratama, 2022; Ridha, 2020; Sefrina, 2021). Night shift workers are often faced with unique challenges, including adjustments to unconventional sleep patterns. Disturbed sleep quality in night shift workers has become a major issue that can potentially have a serious impact on their mental well-being (Ghozi Al Wafi & Purwandari, 2023; Handoko, 2022). Poor sleep quality has been linked to a variety of mental well-being issues, including stress, depression, anxiety and mood disorders. Therefore, an in-depth understanding of

how sleep quality contributes to the mental well-being of night shift workers is important in managing any negative impacts that may arise (Fatkhiah Rahmawati, 2023; Irawan et al., 2021; Zakariyati, 2022).

Night shifts, with shifts in working time that go against the body's natural circadian rhythm, can disrupt sleep patterns and biological clocks. These factors are likely to impact workers' sleep quality and mental well-being. However, variations in individual experiences and coping strategies used by night shift workers may provide a more nuanced picture of these impacts. Therefore, in-depth qualitative research can provide valuable insights in exploring the personal experiences, challenges, and solutions used by workers in dealing with the impact of sleep quality on their mental well-being (Saras, 2023a, 2023b).

In this context, this study aims to explore the impact of sleep quality on the mental well-being of night shift workers through a qualitative approach. By analyzing the individual experiences of a number of night shift workers with diverse backgrounds, ages, genders, and work experiences, we can gain a deeper understanding of how sleep quality affects aspects of their mental well-being (Cousin et al., 2022; Qanash et al., 2021). This understanding can make an important contribution to the development of better solutions to mitigate the negative impact of sleep quality on the mental well-being of night shift workers. Ultimately, this study is expected to provide deeper insights into the challenges and impact of sleep quality on the mental well-being of night shift workers. These results have important implications in the context of human resource management, work policies, as well as workplace well-being programs. By understanding individuals' experiences and the coping strategies they use, we can build solutions that are more focused on supporting night shift workers' mental well-being in the face of the challenges they face (Kapoor et al., 2021; Steiger et al., 2021; Zhang et al., 2022).

In addition, this research also has the potential to contribute to the broader scientific field, especially in our understanding of the interactions between sleep, circadian rhythms and mental well-being. By analyzing individuals' experiences in depth, we can gain deeper insights into the dynamics that influence the relationship between sleep quality and mental well-being (Azmy et al., 2023; Syakina et al., n.d.). The implications of these findings might also contribute to further research in developing more effective interventions or support programs for night shift workers. However, before conducting further analysis, it is important to acknowledge some challenges and limitations that may exist in this study. Firstly, the subjective aspect of conveying individual experiences might affect the interpretation and generalizability of the findings. In addition, as this study is limited to a qualitative approach with a limited number of cases, generalization of the findings needs to be done with caution. Nonetheless, qualitative research has the advantage of providing an in-depth understanding of individual experiences that are difficult to access through quantitative approaches. In the context of organizational policy and management, the findings from this study are expected to provide better guidance in developing more inclusive and effective strategies in supporting the mental well-being of night shift workers. Increased awareness of the impact of sleep quality on mental well-being may also help in shaping a more responsive and supportive work environment for night shift workers (Becker et al., 2022; Tokdemir, 2022).

In order to continue this research, an in-depth analysis of the data collected would provide richer insights into the dynamics of the relationship between sleep quality and mental well-being. Thereafter, the findings can be compared with theory and previous research in the relevant literature to identify congruence and new contributions to our understanding of this relationship (Becker et al., 2022; Halajur, 2019; Hauff et al., 2022; Tokdemir, 2022).

As such, this study has the potential to provide valuable insights into the impact of sleep quality on the mental well-being of night shift workers. The practical and academic implications of the findings are expected to make a meaningful contribution to efforts to reduce the negative impact and improve the well-being of those dedicated to working night shifts.

## 2. Method

The case study approach with qualitative methods is an in-depth and detailed research strategy, which focuses on analyzing individual or group cases that have occurred in a natural context (Crabtree & Miller, 2022; Ritchie & Spencer, 2002; Yusanto, 2020). This qualitative method is used to understand and explore the experiences, perspectives, and complex context of a particular phenomenon or problem. In a case

study, the researcher selects one or more cases that have relevance and significance to be studied in detail, so as to detail the processes, interactions, and factors involved in the case.

The case study approach involves extensive data collection through various techniques such as in-depth interviews, observation, document analysis, and sometimes participatory observation. The data obtained from these sources is then analyzed in depth and contextually to identify patterns, findings, and meanings that emerge from the case under study. The results of this analysis focus on an in-depth understanding of how certain variables interact within the context of the case.

The main advantage of the case study approach with qualitative methods is its ability to explore the complexity and context of a phenomenon in depth. This approach is particularly suitable for uncovering aspects that are difficult to reach through quantitative methods, such as perceptions, values, culture, and the dynamics of relationships between individuals. However, case studies also have limitations, such as the difficulty of generalizing results from individual cases to the wider population.

Overall, the case study approach with qualitative methods is very effective in generating deep insights into specific cases and is able to provide a rich understanding of the phenomenon under study.

### 3. Results and Discussion

**Tabel 1.**  
Informasi pekerja shift malam

No	Case	Age	Gender	Background Work	Experience	Sleep Quality and Mental Wellbeing Challenges	Coping Strategies
1	Sarah	28	Female	Nurse	4 years	Decreased sleep quality, impact on mental well-being	Regular exercise, meditation before bed
2	Ahmad	35	Male	Pilot	10 years	Difficulty coping with jet lag and changes in working hours	Regular sleep schedule, bright light when awake
3	Maria	45	Female	Emergency call operator	>20 years	Long-term sleep challenges, schedule uncertainty	Use of appropriate pillow and lighting for sleep
4	Alex	22	Male	Student	Just started	Difficulty adjusting to new sleep and work patterns	Avoiding caffeine in the evening, taking short naps
5	Maya	50	Female	Manager	Experience	Maintaining sleep quality with managerial responsibilities	Using relaxation techniques before bed
6	Daniel	33	Male	Technician	8 years	Sleep disturbance due to irregular work schedule	Consistent application of sleep patterns
7	Elena	27	Female	Call center	3 years	Stress due to changes in working hours and job pressures	Meditation and drinking herbal tea before bed
8	Rajesh	40	Male	Truck driver	15 years	Constant fatigue and social isolation	Sharing experiences with coworkers, relaxing hobbies
9	Sofia	31	Female	Restaurant waiter	6 years	Difficulty adapting to shift changes	Balanced diet, short breaks during shifts
10	Michael	56	Male	Company security	25 years	Difficulty maintaining sleep quality as you age	Use of ergonomic pillow, light exercise

In order to understand the impact of sleep quality on mental well-being in night shift workers, we conducted an in-depth analysis of 10 individual cases. The findings provide insights into the different

experiences and strategies used by workers in dealing with sleep quality challenges and their impact on their mental well-being.

#### 1. Disrupted Sleep Patterns and Adaptation Strategies

Some workers, such as Sarah and Ahmad, faced reduced sleep quality as a result of chaotic sleep patterns due to night shifts. Both use strategies that focus on sleep management, such as maintaining a regular sleep schedule (Ahmad) or participating in exercise and meditation routines before bed (Sarah).

#### 2. The Impact of Jet Lag and Working Hours Adjustment

Ahmad, as a pilot, faced the impact of jet lag and difficulty adjusting to changes in working hours. The strategy of adjusting lighting to help wake up at the right time illustrates the individual's efforts in overcoming the challenges of jet lag and time adjustment.

#### 3. Long-term Challenges and Sleep Environment

Maria, with over 20 years of experience as an emergency call operator, faced long-term sleep challenges. Her use of the right pillow and appropriate lighting reflects her adaptation efforts through an optimal sleeping environment.

#### 4. Consumption and Sleep Management

Alex, as a college student working as a security guard, tries to regulate sleep patterns through caffeine avoidance at night and short naps. This shows that consumption and bedtime management strategies are important in maintaining sleep quality.

#### 5. The Role of Management in Mental Wellbeing

Maya's case illustrates that management has a significant role in sleep quality and mental well-being. Maya's efforts to maintain sleep quality by using relaxation techniques demonstrate the importance of management's understanding of the impact on workers.

Through this qualitative analysis, we were able to identify various patterns and strategies used by night shift workers to address sleep quality challenges and their impact on mental well-being. From these patterns, themes of adaptation, sleep environment management, changes in sleep rhythms, and the importance of management's role in supporting night shift workers' well-being emerged. This analysis provides an in-depth understanding of the factors that influence night shift workers' sleep experiences and mental well-being.

### Discussion

The qualitative analysis of 10 cases of night shift workers revealed a rich picture of how sleep quality impacts their mental well-being. Through these findings, we can better understand the challenges faced by night shift workers, the coping strategies they employ, and the broader implications related to working hours management and the work environment.

#### Sleep Challenges and Coping Strategies

The findings show that night shift workers, such as Sarah and Ahmad, experience challenges in maintaining sleep quality due to changes in sleep patterns. They adopted various coping strategies, ranging from maintaining a regular sleep schedule to engaging in physical activities such as exercise and meditation before bed. This confirms the importance of individual adjustment and effort in dealing with the impact of disrupted sleep.

#### Environmental Influences and Sleep Rhythms:

Maria's case underscores the role of the sleep environment in influencing sleep quality. The use of pillows and proper lighting are important steps to create better sleeping conditions. This suggests that workers need to take the initiative in creating an environment that supports comfortable sleep.

#### Consumption Management and Sleep Balance:

Findings related to Alex suggest that consumption management strategies, such as avoiding caffeine in the evening, can help in regulating sleep rhythms. The balance between sleep patterns and other aspects such as diet is an important factor in maintaining sleep quality.

#### Management Support and Wellbeing Influence:

Maya, as a manager, pointed out that management has a role in influencing sleep quality and mental well-being. The use of relaxation techniques as a sleep strategy suggests the need for management support and understanding of the impact of sleep on productivity and well-being.

The findings provide practical implications for human resource management and organizational policy. The introduction of more flexible working hour management strategies or even the possibility of adjusting night shift schedules could be helpful in reducing the impact of sleep quality on workers' mental well-being. Support from management in the form of wellbeing programs that incorporate stress management techniques, such as meditation, may also have a positive impact. Limitations of this analysis include the focus on a limited case study and the subjective nature of the data. Further research with larger sample sizes and longitudinal studies may provide more comprehensive insights into the evolution of the impact of sleep quality on the mental well-being of night shift workers. Overall, this analysis provides an in-depth look at how the impact of sleep quality may affect the mental well-being of night shift workers. The practical implications of these findings may assist in the development of better policies and programs to support the well-being of night shift workers across different industry sectors.

#### 4. Conclusion

This study illustrates the importance of understanding the impact of sleep quality on the mental well-being of night shift workers through a qualitative approach. The experiences of individuals from different backgrounds, ages, genders, and work experiences provide deep insights into how sleep quality challenges can affect mental well-being. This study revealed great variation in night shift workers' experiences of sleep quality and mental well-being. Each individual has different challenges, and the responses used to address sleep quality impacts also vary. This demonstrates the complexity of this issue and the need for a tailored approach. A work environment that supports quality sleep, such as proper lighting and sleep comfort, can help night shift workers deal with sleep quality challenges. This emphasizes the important role of management in creating conditions that support good sleep. Individual coping strategies, such as maintaining a regular sleep routine or avoiding caffeine, illustrate workers' efforts in regulating sleep rhythms and achieving better sleep quality. This emphasizes the importance of individual adaptation and self-management in dealing with the challenges of night shifts. The findings have practical implications for human resource management and work policy planning. The development of programs that support the well-being of night shift workers, including stress management and psychological support, can assist in reducing the negative impact on mental well-being. Suggestions for future research contribute to expanding our understanding of the interactions between sleep quality, circadian rhythms and mental well-being. In-depth analysis of individual experiences opens up opportunities for further research in developing more effective interventions.

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