

# Strategies that nurses working irregular night shifts use to improve sleep quality: A qualitative study among good and poor sleepers

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### INTRODUCTION

- 1. Nurses who work night shifts may experience significant effects on their health, daily habits, and their work-related performance.
- Working night shifts disrupts nurses' circadian rhythm, resulting in difficulty falling and staying asleep, as well as excessive daytime sleepiness.
- 3. There are suggestions or strategies for night shift workers in general.
- No definitive suggestions or strategies for nurses working irregular night shifts.

#### **Objective:**

To understand the sleep strategies and lifestyle behaviors that affect perceived sleep quality of good and poor sleepers of nurses working irregular night shifts and to determine whether the differences between the two groups could provide insights into possible good strategies.

## **METHODS**

**Design:** A qualitative descriptive study.

**Setting:** Maastricht University Medical Center (MUMC+).

Study participants: Thirty-four nurses working irregular night shifts.17 were classified as good sleepers and 17 as poor sleepers based on the Sleep-Wake Experience List.

**Study methods:** Semi-structured, face-to-face interviews, using a guide of open questions regarding strategies/lifestyle behaviors around the night-shift set and for switching to a normal sleep rhythm.

### **RESULTS**

The themes identified were:

- 1. Strategies/lifestyle behaviors to prepare for the night-shift set.
- 2. Strategies/lifestyle behaviors during a set of night shifts.
  - Stay awake/focused during shift.
  - Help to sleep during the night-shift set.
- 3. Strategies/lifestyle behaviors to return to normal rhythm.

### Themes

Similarities and differences in strategies/lifestyle behaviors to prepare for the night-shift set to stay awake/focused on the shift	Number of participants mentioning the strategy of the two groups	
Same strategies or behaviors	Good sleepers	Poor sleepers
<ul> <li>Take rest time on the couch before the night shift</li> </ul>	5	3
<ul> <li>Taking a nap before the night shift starts or during the night-shift set</li> </ul>	8	7
<ul> <li>Sleep as long as possible the day before the night shift</li> </ul>	4	3
Different strategies or behaviors		
<ul><li>Sleep on time the day before</li></ul>	3	0
<ul> <li>Switching sleep rhythm to prepare for the night-shift set</li> </ul>	1	0
<ul> <li>Going to bed late the day before the night shift</li> </ul>	2	0
<ul> <li>Stop drinking alcohol and coffee the day before the night-shift set</li> </ul>	2	0
<ul><li>Do some exercise before the night shift</li></ul>	1	0
<ul> <li>Moving the exercise time to the day before the night shift set starts and just relaxing on the night shift day</li> </ul>	1	0
<ul><li>No strategy for preparation</li></ul>	0	6

Similarities and differences in strategies/lifestyle behaviors used to return to a normal rhythm	Number of participants mentioning the strategy of the two groups	
Same strategies or behaviors	Good sleepers	Poor sleepers
<ul> <li>Set alarm for a certain time</li> </ul>	8	6
<ul> <li>Not sleeping immediately after the night-shift set ends</li> </ul>	2	3
Different strategies or behaviors		
<ul> <li>Staying active by doing different exercises during the day</li> </ul>	5	0
<ul> <li>Setting the alarm earlier than usual</li> </ul>	1	0
<ul> <li>Going to sleep at night on time</li> </ul>	2	0
<ul><li>Relaxing in a sauna</li></ul>	1	0
<ul> <li>Drinking coffee to stay active when switching</li> </ul>	1	0
<ul> <li>Walking the dog before sleeping time</li> </ul>	0	3
<ul> <li>Using medication as melatonin</li> </ul>	0	1
<ul> <li>No specific strategies mentioned</li> </ul>	0	4

Similarities and differences in strategies/lifestyle **Number of participants** mentioning the strategy of the behaviors to stay focused and help to sleep during a set of night shifts **Good sleepers** Same strategies or behaviors for staying awake/focused during the shift Take a rest or nap when becoming drowsy

Walking when becoming drowsy Drinking or eating to stay awake Different strategies or behaviors for staying awake/focused during the shift Fewer main meals during the night shift No specific plan Same strategies or behaviors to helping sleep after shift

two groups

**Poor sleepers** 

Using earplugs Using shutter or blackout curtain Avoiding exercise Eating before the shift ends to prevent feeling hungry and interrupting sleep Different strategies or behaviors to helping sleep after

shift Keeping clear structure and being organized and sleeping on time Putting a note on the door to not disturb Reading to get to sleep faster Not allowing the family to come near the bedroom Using a hot water bottle Stop drinking coffee or water before the night shift ends Swimming

 Putting the phone on sleep mode CONCLUSION

Not ordering packages while working night-shift set

The main difference between good and poor sleepers appears to be that good sleepers have a clear plan for the night shift period that works for them, using more strategies than poor sleepers and using them consistently. To promote good quality sleep among nurses working irregular night shifts, individualized plans should be encouraged, taking into account their individual characteristics. These plans may include establishing a clear structure, organizing routines, maintaining a consistent daily schedule, and optimizing the sleep environment. In the future, interventions and research should aim to identify and encourage nurses to experiment with various strategies and behaviors to determine the most effective approaches for their individual needs.

### REFERENCES

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