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A comparative study to assess the effectiveness of ear plug, eye mask and ocean sound on sleep quality among ICU patients**Abhilasha Chaudhary, Vinay and Kumari Neetu**
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Background: Sleep is one of the basic human needs required for health and energy conservation, appearance and physical well-being. Sleep serves as a restorative, homeostatic function and appears to be crucial for normal thermoregulation and energy conservation.

Aim: The objective of the study was to assess and compare the effectiveness of ear plug, eye mask and ocean sound on sleep quality among ICU patients. The conceptual framework of the study was based on Roy's adaptation theory.

Methodology: A true experimental crossover design was used. Convenience sampling technique was used to select the setting medical ICU and 60 patients. 60 patients were randomly allocated to group-1 and group-2 by lottery method i.e., 30 in each group. Group-1 received earplugs and eye masks on the first night followed by washout period on second night and received ocean sound on third night, while the group-2 received ocean sound on the first night followed by washout period on second night and received earplugs and eye mask on third night. The structured sleep quality scale was used to assess the sleep quality of previous night. Scores for each question ranges from 0 to 3, where higher score indicated poor sleep quality and lower score indicated good sleep quality. Content validity of the structured sleep quality scale was (S-CVI=0.87) and reliability was 0.85.

Results: The findings of the study showed that both the groups were homogenous and comparable before administering the interventions. The mean post-test sleep quality score of patients in group-1 and group-2 after the use of earplugs and eye mask (10.9 ± 5.06 , 12.43 ± 5.2) was significantly ($P < 0.05$) lower than the patients who received ocean sound (16.10 ± 3.88 , 16.07 ± 4.04). The findings indicated that the ear plugs and eye mask were more effective in enhancing sleep quality than ocean sound. There was no significant difference ($p = 0.08$) in mean sleep quality score before intervention and after the washout period indicating no carryover effect of the interventions on the third night in group-1 and group-2. There was significant association of sleep quality score with marital status and sleep disturbing factor (pain). There was high acceptability for ear plug (95%), eye mask (98.3%) and ocean sound (93.3%) among the patients in group-1 and group-2.

Conclusion: Ear plug and eye mask are better than ocean sound in improving sleep quality. Earplugs, eye mask, and ocean sound could be used as an adjuvant to pharmacological interventions to improve sleep quality among ICU patients.

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Biography

Abhilasha Chaudhary is currently an MSc Nursing student. Her research interest includes critical care nursing which will help in improving sleep quality among ICU patients.

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