

Summary of research No. 4

Can A Nursing Intervention Improve The Sleep Pattern Disorders In Patients Undergoing Hemodialysis In Morning And Afternoon Shifts?

هل التدخل التمريضي يؤدي الى تحسين اضطرابات نمط النوم للمرضى الذين يخضعون للغسيل الكلوي في الفترتين الصباحية والمسائية؟

Background: Sleep disturbances are extremely common among dialysis patients. Subjective sleep complaints are reported in up to 80% of patients and are characterized by difficulty in initiating and maintaining sleep, problems with restlessness, jerking legs, snoring, choking sensations and/or daytime sleepiness. **The aim** of this study was assess the effectiveness of nursing intervention guidelines in improving sleep pattern and quality in ESRD patients undergoing hemodialysis in morning and afternoon shift. **Design:** a quasi-experimental design with pre-post-follow-up assessment was used in this study. Participating patients were assessed at three time intervals: before, at completion, and 12 weeks after completion of the health guidance nursing intervention. **Setting:** The study was conducted in the Nephrology Hemodialysis Units at the Zagazig University Hospital and Elnaser insurance Hospital at Helwan University. **Subjects:** The study was carried out for all patients (60) undergoing hemodialysis was age 18-75 years, either in the morning (6:30 to 10:30 AM) or afternoon (3:30 to 7:30 PM) sessions, for at least three months. Patients in morning shift (30) with mean age 53.6 ± 8.9 and 30 patients in evening shift with mean age 57.2 ± 7.0 . **Tools:** The researchers developed an interview questionnaire to collect data regarding patient's socio-demographic characteristics, physical health problems, psychosocial factors, feeling and biochemical factors, in addition to Pittsburgh Sleep Quality Index (PSQI) and the Epworth Sleepiness Scale (ESS). **Results** revealed that the patients in the morning and afternoon groups had similar socio-demographic characteristics; total number of reported problems was lower in morning group compared with the afternoon group, all patients having poor quality sleep, with a median of 4 hours night sleep in both groups. As regards the factors affecting sleep, social and patient feelings factors were statistically significantly higher among patients in the morning group, in the afternoon group had higher mean score of breathing problem while sleeping. There were statistically significant improvements in all sleep parameters and the associated physical problems and psychosocial factors in both the morning and afternoon groups. There were statistically significant improvement of the levels of hemoglobin, serum calcium, and blood urea in both groups throughout the intervention. All four factors' scores (feelings, psychosomatic, breathing while sleeping, and social) were the statistically significant independent predictors of this score. The patient feelings score was the only negative predictor, while all other three factors were positive predictors and improvement in sleep quality score. **Conclusion:** nursing intervention guidelines based on identified factors affecting sleep disorders can improve the sleep pattern and quality of the patients with ESRD on hemodialysis through acting on their physical, psychosocial factors and patient feelings. However, it seems to be more effective among patients having morning dialysis sessions compared with afternoon ones. Therefore, it is essential that the nurses identify the factors that may adversely affect the quality of sleep of these patients and develop strategies to reduce their sleep disorders. The findings should be further confirmed through randomized clinical trials to avoid the limitations of confounding factors. The effect of biochemical parameters on sleep quality and pattern needs further investigation.

Key words: sleep disturbances, hemodialysis, sleep habits, sleep quality, Biochemical and BMI



