

## The relationship between sleep quality in patients' undergoing hemodialysis and different therapeutic' shifts

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**Background and aim:** Many hemodialysis patients suffer from poor quality sleep. The aim of this study was to determine the relationship between therapeutic' hemodialysis shifts with sleep quality in patients' undergoing hemodialysis.

**Methods:** This was a descriptive, cross-sectional study and participants were selected by available method, including 90 hemodialysis patients in Semnan who were undergoing hemodialysis in fixed shift, in morning, evening or night for at least 3 months. Inclusion criteria included age over 18 years and hemodialysis two or three times per week for three hours or more per session. Sleep quality was assessed by the Pittsburgh Sleep Quality Index (PSQI). Data Analysis was performed with SPSS 18.0 software and significance level of 5% by using Shapiro Wilk, Mann-Whitney, t, chi-square and logistic regression.

**Results:** In this study participants were 54.4% male and the rest were female. 33.3% of patients had good sleep quality and 66.7% had low sleep quality. In one variable analysis there was significantly correlation between quality of sleep and sex ( $P=0.01$ ), marital status ( $P=0.009$ ), number of children ( $P=0.012$ ) and dialysis' shift ( $P=0.003$ ). The effect of simultaneously variables in the logistic regression showed that the risk of low sleep quality in women versus men was 3.75/1, evening' versus morning shifts was 5.25/1 and night' versus morning shift was 4.13/1. Also, for each additional offsprings, the risk of low sleep quality was increased to 1.33/1.

**Conclusion:** Findings in this study showed that sleep quality in patients that are hemodialyzed in morning shift was significantly better than other shift. This information may help for arranging the situation to choose the most appropriate therapeutic shift for hemodialysis patients, especially for those who suffer from poor quality sleep.

**Keywords:** Hemodialysis, sleep, Shift