Effects of intervention on quality of sleep and quality of life among elderly people with sleep disturbance

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ABSTRACT

The purpose of the study was to find out the effects of nursing intervention on quality of sleep and quality of life among elderly people with sleep disturbance.

Research Design

A quasi-experimental, non-randomized, pretest posttest, control group design was used for this study.

Population and Sample Selection

The target population of the study was the elderly people with sleep disturbance residing in four oldage homes of Trichy city, Tamil Nadu.

The convenience sampling technique was used to select the four oldage homes and for assigning oldage homes to experimental group and control group. The consecutive sampling technique was used to select 180 elderly people for the study, 90 in experimental group from two oldage homes and 90 in control group from other two oldage homes.

Method of Data Collection

The instruments used for the study consisted of standardized tools namely Pittsburgh Sleep Symptom Questionnaire – Insomnia (PSSQ_I) to screen the elderly people with sleep disturbance, Pittsburgh Sleep Quality Index (PSQI) to assess the quality of sleep during pretest and posttest in both experimental and control group and WHOQOL-BREF (1996) to assess the quality of life during pretest and posttest in both experimental and control group. In addition, the investigator developed subject data sheet to collect data regarding demographic profile of the elderly people.
and structured practice questionnaire to assess the practice of nursing interventions by the elderly people in experimental group. Interview technique was used to collect the data from the elderly people.

**Method of Data Analysis**

Descriptive (frequency, percentage, mean, standard deviation) and inferential statistics (independent ‘t’ test, paired ‘t’ test and correlation coefficient) were used to summarize the data and to test the study hypotheses.

**Major findings**

1. A majority of the elderly were suffering from sleep disturbance in the four oldage homes. The prevalence of sleep disturbance among the elderly people was 73.84% ranging from 67% to 82% in the four oldage homes.

2. The nursing intervention (i.e) sleep hygiene education and progressive muscle relaxation were effective in improving quality of sleep among elderly people with sleep disturbance. There was a significant difference (p<0.001) in the quality of sleep between the experimental group (Mean Difference = 6.55) and control group (Mean Difference = 0.84). Significant difference was also found in all seven components of quality of sleep between the experimental and control groups.

   In the experimental group, on posttest, 43% of elderly people had good quality of sleep whereas, in control group, it was found that all the study participants had poor sleep quality on the pretest and posttest.

3. The nursing intervention (i.e) sleep hygiene education and progressive muscle relaxation were effective in enhancing quality of life among elderly people with sleep disturbance. There was a significant difference (p<0.001) in the quality of life between the experimental group (Mean Difference = 58.73) and control group (Mean Difference=1.11).
Significant difference was also found in all four domains of quality of life between experimental and control groups.

On the posttest, a majority (77.8%) of elderly people in experimental group perceived their quality of life as good while, 77.8% of the elderly people in control group perceived their quality of life as neither poor nor good.

4. A significant negative correlation was found between quality of sleep and practice of nursing interventions (r = -0.35; p<0.05) indicating that as the practice of nursing interventions increase, the quality of sleep also increases.

Conclusions

Sleep disturbance is a common condition among the elderly population. In geriatric population with sleep disturbance, practicing the nursing intervention (i.e) sleep hygiene education which highlights the sleep promotion behaviours and progressive muscle relaxation which creates a deep sense of relaxation are the effective means of interventions in improving quality of sleep among the elderly people. The nursing interventions are also effective in enhancing quality of life among the elderly people. There is a correlation between the practice of nursing interventions and sleep quality, the higher the compliance towards the practice of nursing interventions, the higher the quality of sleep.

The findings of the study are consistent with literature and have support from studies conducted throughout the world. However, based on the method of sample selection and considering the limitations of the study, the findings may not be generalizable to the elderly people living in oldage homes in other parts of India.