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## Analysis of sleep of nurses in different hospital shifts: a descriptive study

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### ABSTRACT

**Aim:** To evaluate the pattern, quality and latency of sleep and napping habits of nurses in different hospital shifts. **Method:** A transversal and descriptive study with a quantitative approach. The study will be conducted at the University Hospital of Rio Grande do Norte. An identification sheet for sociodemographic recognition, and Pittsburgh Sleep Quality Index questionnaires, which assess sleep patterns and sleep diaries to evaluate the sleep-wake cycle will be applied. **Expected results:** To identify the sleep quality of nurses on day and night shifts. The study will have a positive effects for nurses. It will help them to avoid or reduce the effects of working on shifts in terms of the quality of sleep.

**Descriptors:** Sleep; Shift work; Nursing.

## SITUATION AND ITS SIGNIFICANCE

Shift work is currently a problem for most workers and a huge challenge for those in occupational health, especially for nursing staff. Due to changes in their working shifts, nursing professionals may have increased daytime sleepiness when the work is in the morning, requiring the individuals to get up early; and decreased alertness at night<sup>(1)</sup>.

Nurses invariably deal with the effects of these changes in the sleep-wake cycle. However, this can have consequences in terms of a higher risk of accidents at work, as well as a loss to their quality of life<sup>(2)</sup>.

In addition, due to the fact that their working time often does not coincide with periods of activity and those of the rest of society, it sometimes generates personal and family conflict that may further exacerbate the consequences to their health<sup>(2)</sup>.

Thus, this study aims to discuss and analyze sleep and shift work on the part of nurses, since nursing professionals do not always have knowledge about the alterations in sleep, and especially when it comes to the exhausting schemes adopted for their time at work<sup>(3)</sup>.

## GUIDING QUESTION

What are the characteristics of the sleep pattern of nurses who work on day and night shifts?

## MAIN GOAL

To analyze the characteristics of the sleep patterns of nurses who work on day and night shifts.

## SPECIFIC GOALS

- To characterize the sociodemographic characteristics of nurses;
- To identify the quality and pattern of sleep quality of nurses on different shifts; and
- To verify the association between the pattern and quality of sleep according to the shifts worked.

## METHOD

Cross-sectional descriptive study adopting a quantitative approach, to be carried out at the University Hospital of the Federal University of Rio Grande do Norte, located in the city of Natal / RN. The research population will comprise the nurses working at the study site on day and night shifts up to the date of data collection. This corresponds currently to 104 professional nurses.

The inclusion criteria are as follows: professional nurses who have been working as a nurse for at least six months on day or night shift at the studied institution, and who are part of the permanent staff. Those who are on vacation or leave of any kind will be excluded from the study.

Three instruments will be used for data collection: a survey form for collecting the sociodemographic data of the population; a sleep diary and visual analog scale, in which the subjects will record their sleep patterns for seven days; and the Pittsburgh Sleep Quality Index questionnaire, which is designed to evaluate the characteristics of sleep patterns and to quantify the individual's sleep quality through seven components that assess subjective sleep quality, in the form of sleep latency, duration of sleep, habitual sleep efficiency, sleep disturbances, use of medication to sleep, daytime sleepiness and related disorders during the day.

A descriptive analysis will be conducted to assess measures of the collected results and the sample profile according to the variables under consideration. The data will be organized in spreadsheets with the use of Microsoft Office Excel® software (2003 version) and will be submitted to statistical analysis using SPSS software (version 20.0). For continuous variable position and dispersion, mean and median and standard deviation measurements will be used respectively. The nonparametric chi-square and Fisher's exact test will be used to compare categorical variables between day and night shifts and the sleep pattern variables. For correlation of variables, Spearman correlation test will be used. The significance level to be used will be 0.05.

This study was approved by the Ethics Committee of the Federal University of Rio Grande do Norte (UFRN) under opinion No. 751,567, according to the Resolution 466/2012 of the National Health Council.

Este estudo foi aprovado pelo Comitê de Ética em Pesquisa da Universidade Federal do Rio Grande do Norte (UFRN) sob nº de parecer 751.567, conforme a Resolução 466/2012 do Conselho Nacional de Saúde.

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