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## ANALYZING THE SLEEP QUALITY OF NURSES EMPLOYED IN SPECIAL CARE UNITS OF CHABAHAR'S IMAM ALI TEACHING HOSPITAL IN 2016

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### Abstract

**Objective:** Sleep disorder has profound effects on mental and physical health and performance of individual. Given to the importance of adequate sleep in nurses we decided to do the study with aim to determine sleep disorder in nurses of the special care units.

**Procedures and methods:** this study was done in descriptive-analytical method and in cross-sectional form over 52 nurses employed in units of Chabahar's Imam Ali teaching hospital in 2016. Data were collected by using Petersburg's standard questionnaire in census method and it was analyzed by using spss software version of 19, descriptive statistical tests, Pearson's correlation ANOVA, t.test.

**Findings:** The results showed that 82.7 percent of them were women and 67.3 percent of them were married. 38.5 percent of them were native of the city and 80.8 percent of them were native of province as well. The average score of sleep in nurses was  $22.38 \pm 7.6$ . The average hour of going to sleep was 00:30 and the average of their real sleep was  $6.076 \pm 1.65$ . There was significant relationship between sexuality, to be the native of the city and real sleep in round the clock. There was also significant relationship between marital status and sleep time.

**Conclusion:** According to the results it was found that the nurses had weak sleep quality. Given the importance of sleep and its impact on personal and professional life, paying attention to sleep quality of nurses can help nurses in providing better nursing services.

**Key words:** Sleep quality, nurses, special care units.

**Introduction:** Nurses are the largest professional group in the healthcare and treatment system; so that the 40 percent of the whole staffs of a hospital are formed by nurses and 55 percent of the total cost of employees is dedicated to nurses, therefore; they play an important role in the health care and treatment system (1). Nursing profession has been combined with shift work status and sleep disorder arose from it. And this problem will result to disintegration of individual's physical and mental foundation and problems such as: Digestive disorders, heart problems, nervous exhaustion, lack of concentration, inappropriate behavior, delusion, emotional maladjustment and aggression. Nurses are the most prominent groups who work on shifts that this event effect not only on their health, but it also jeopardizes the health of the patient. (2,3). For the reason that nurses work in morning, evening and night shifts irregularly, this irregular pattern of sleep and awakening cause to reduce sleep time in them and to reduce working power (4). Studies show that shifting work can have a negative impact on job performance, sleep, physical health, mental health, social life, improper use of different drugs and tolerance level of job tension (5,6). Sleep is one of the most important round-the-clock cycles and is a complex pattern of biology (7). Researchers believe that sleep and rest have restorative and protective role. In restful sleep, the growth hormone is released from body to restore and renewal of epithelial cells. The restful sleep can also be useful in maintaining of heart function (8,9). Studies showed that the risk of death in people who sleep more than 8.5 hours or less than 3.5 hours at night is 15% more than those who sleep 7 hours at night on average (10). Sleep and awakening cycle is one of the biology cycles which is effected by physiologic performance, light and darkness, work programs, protection and other activities and biologic clock of human plays an important role (11). Sleeplessness causes the adrenaline hormone enters to the bloodstream to a greater extent and therefore person feels more tiredness and depression and the focus of him is reduced (12, 13). Sleep disorder can also leads some problems to be occurred such as: professional errors, mistake in calculation or medications, lack of ability and decision making in crisis and acute situation, lack of proper communication with patients, attrition, personal dissatisfaction, reduce of cognitive function, paramnesia, reducing the preparation and attention of people and non-professional injuries like driving accidents, irregular use of hypnotic drugs and body injuries in drowsiness time (14). Therefore, this study has been done with the aim for analyzing the sleep quality of nurses employed in special care units Chabahr's Imam Ali teaching hospital.

**Procedures and methods:** This study was done in descriptive-analytical method and in cross-sectional form over 52 nurses employed in units of Chabahr's Imam Ali teaching hospital in 2016. Data were collected by using Petersburg's

standard questionnaire in census method. Petersburg's standard quality interview (PSQI) is one of the scales used in foreign researches. This questionnaire investigates the attitude of patient about sleep quality during last 4 weeks. This questionnaire has 7 score for 1- individual's general description of sleep quality 2- delay to fall in asleep 3- duration of useful sleep 4- useful sleep 5- sleep disorders 6- the amount of consumed hypnotic drugs 7- daily performance disorder and a total score was obtained by it. The score of each one of the scales of questionnaire is played between 0 to 3. The validity of questionnaire has been confirmed in Iran and the reliability of it is 0.7 which has been obtained by Cronbach's alpha (15). Finally, it was analyzed by using spss software version of 19, descriptive statistical tests, Pearson's correlation ANOVA, t.test.

**Findings:** The results showed that 82.7 percent of participants were women and 67.3 percent of them were married. 38.5 percent of them were native of the city and 80.8 percent of them were native of province as well. The average score of sleep in nurses was  $22.38 \pm 7.6$ . The average hour of going to sleep was 00:30 and the average of their real sleep was  $6.076 \pm 1.65$ . There was significant relationship between sexuality ( $p=0.021$ ), and nativeness of the city ( $p=0.019$ ) with real sleep in round the clock and men had more hours for sleep. There was also significant relationship between marital status and sleep time ( $p=0.029$ ). There was no significant relationship between other variables with sleep time.

**Discussion:** Results of this study showed that nurses had poor sleep quality. In different studies conducted in different countries as well as in Iran, the findings show the wide range of poor quality in nurses between 30% and 70%. (16, 17). The study of Solomoni et al. 37 percent of studied population had poor sleep quality (18). In study of Copper, et al. also sleeplessness was a problem for nurses (19, 20). In the study that was done in Australia by Samahaet, al. with the aim to analyze the factors related to chronic fatigue in shift cycle nurses, the findings show that the poor quality of sleep is considered one of the important factor associated with chronic fatigue in nurses (21). Researches also have showed that sleeplessness causes to decrease the immune system and decreasing the performance of hypothalamus, pituitary and adrenal during next days, reducing glucose tolerance, increasing blood pressure and increasing danger of cardiovascular events independently, reducing maximum capacity of people's activity level and also causes to reduce individual talent and anaerobic power (22-24). Sleeplessness can increase the possibility of drowsiness during the day and following it occupational and social events. As well as, irritability, aggression, and loss of social relations in people who are suffering from sleeplessness significantly are higher than other people (25, 26). Irregular sleep-wake pattern of nurses leads to

reduce sleep time and to reduce ability to do daily activities (27, 28). Because they are forced to adopt the plan of their life with work's plan, in most of the time wakening and to be activeness of other members of family makes it difficult to achieve enough sleep (29, 30). Furthermore, the daytime nap is short and has less regenerative property than sleep night. Therefore, nurses must analyze their sleep habits and their sleep status regularly as one the components of health.

**Conclusion:** Given to the results it was found that the nurses had poor quality of life. Given to importance of sleep and its impact on individual and professional life paying attention to sleep quality of nurses can help nurses to provide nursing services as better as possible. Hiring more nurses to reduce workload and to reduce working hours is recommended.

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