QUALITY OF SLEEP IN PREGNANT WOMEN

ORIGINAL ARTICLE

QUALIDADE DO SONO EM GESTANTES

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ABSTRACT

Objective: assessing the quality of sleep in pregnant women who underwent prenatal in a health center in Tremembé city/SP. Method: descriptive and quantitative research, carried out with 30 pregnant women who were attended by a health center and agreed to participate and signed an informed consent. Data were collected using the Quality Index questionnaire Pittsburgh Sleep (PSQI). Data were collected between June and July 2010. The research project was submitted to the Ethics Committee in Research of the University of Taubaté as CEP / UNITAU Protocol number 127/10. Fulfilling the ethical principles in accordance with Resolution 196/96 National Health. Results were quantified by the program Microsoft Excel 2003. Results: 6 (20%) were in the first trimester, 9 (30%), in the second, and 15 (50%) in the third. The results showed that 21 (72.42%) have scores higher than five, which indicated poor quality of sleep. The most frequent complaints were pains, getting up to go to the bathroom, take longer than thirty minutes to fall asleep and waking up at night or very early, have bad dreams or nightmares, have trouble breathing, feeling very cold or hot. Conclusion: the quality of sleep is bad for pregnant women, which may be related to: increased urination, waking up too early or during the night, the sensation of pain in the body and anxiety about childbirth and child. 244 words.

Descriptors: sleep, nursing, pregnant women.

RESUMO

Objetivo: avaliar a qualidade do sono em gestantes que passaram por consulta pré-natal em um Centro de Saúde da cidade de Tremembé-SP. Método: investigação descritiva e quantitativa, realizada com 30 gestantes que passaram por consulta em um centro de saúde e concordaram em participar e firmaram o termo de consentimento livre. Para a recogida de dados foi utilizado o cuestionario Índice de Calidade do Sueño de Pittsburgh (IQSP). Os dados foram recolhidos entre junho e julho de 2010. O projeto de investigação foi sometido à aprovação do Comité de Ética em Investigación de la Universidad de Taubaté, conforme Protocolo CEP/UNITAU n. 127/10. Cumprindo os Princípios Éticos de acordo com a Resolução 196/96 do Conselho Nacional de Saúde. Os resultados foram quantificados pelo Programa Microsoft Excel 2003. Resultados: 6 (20%) estavam no primeiro trimestre gestacional; 9 (30%), no segundo; e, 15 (50%), no terceiro. Os resultados obtidos evidenciaram que 21 (72,42%) possuem escores maiores que cinco, o que indicou má qualidade do sono. As queixas mais frequentes foram: sentir dores, levantar-se para ir ao banheiro, demorar mais de trinta minutos para coger en el sueño y despertar en el medio de la noche o muy temprano, tener sueños o pesadillas malas, tener dificultad para respirar, sentir muy frío o calor. Conclusão: la calidad del sueño de la gestante es mala, lo que puede estar relacionado con: aumento de la frecuencia orinaria, el despertar muy temprano o durante la noche, la sensación de dolores por el cuerpo y ansiedad en relación al parto y al hijo. Descriptores: sueño; enfermería; mujeres embarazadas.

RESUMO

Objetivo: avaliar a qualidade do sono em gestantes que passaram por consulta pré-natal em um Centro de Saúde da cidade de Tremembé-SP. Método: pesquisa descritiva e quantitativa, realizada com 30 gestantes que passaram por consulta em um centro de saúde e concordaram em participar e assinaram o termo de consentimento livre. Para a coleta de dados foi utilizado o questionário Índice de Qualidade do Sono de Pittsburgh (IQSP). Os dados foram coletados entre junho e julho de 2010. O projeto de pesquisa foi submetido à aprovação do Comité de Ética em Pesquisa da Universidade de Taubaté, conforme Protocolo CEP/UNITAU n. 127/10. Cumprindo os Princípios Éticos de acordo com a Resolução 196/96 do Conselho Nacional de Saúde. Os resultados foram quantificados pelo Programa Microsoft Excel 2003. Resultados: 6 (20%) estavam no primeiro trimestre gestacional; 9 (30%), no segundo; e, 15 (50%), no terceiro. Os resultados obtidos evidenciaram que 21 (72,42%) possuem escores maiores que cinco, o que indicou má qualidade do sono. As queixas mais frequentes foram: sentir dores, levantarse para ir ao banheiro, demorar mais de trinta minutos para pegar no sono e acordar no meio da noite ou muito cedo, ter sonhos ou pesadelos ruins, ter dificuldade para respirar, sentir muito frio ou calor. Conclusão: la calidad del sueño de la gestante es mala, lo que puede estar relacionado con: aumento de la frecuencia orinaria, el despertar muy temprano o durante la noche, la sensación de dolores por el cuerpo y ansiedad en relación al parto y al hijo. Descriptores: sueño; enfermería; mujeres embarazadas.
INTRODUCTION

For a long time, sleep was considered a kind of wasted time, which served only to restore the energy expended during the day. This view began to change in the first half of the twentieth century, but it was only in the last ten years, with advances in studies of genetics, molecular biology and neurochemistry, that most doctors had their attention drawn to the physiology and the real role of night rest in order to preserve health.1

Sleep is a physiological and behavioral state which implies a shutdown of consciousness and decreased response to the environment in a rhythmic and reversible manner. The sleep-wake cycle is regulated by an internal pacemaker, the biological clock, seen in isolated situations when there is no environmental variation. The rhythmicity of the human body continues as a normal distribution about two thirds of the day wake and a third of sleep, when in the presence of environmental temporal signals. In case of isolation the period of oscillation of the circadian pacemaker is approximately 24 hours.2

Several functions are attributed to sleep. The simplest hypothesis is that it is intended to recover the energy output provided by the body during the day by the organism, i.e., wake, maintenance of homeostasis, neurotransmitters involved in sleep-wake cycle, memory consolidation, thermoregulation, among other functions.3

Some authors report that women suffer more from sleep disorders than men. The menstrual cycle, pregnancy and menopause may affect the quality of sleep due to the changing levels of hormones that the body experiences. In these various phases of a woman's life, that her body undergoes physical changes and emotional changes in estrogen and progesterone exert a strong influence on a night's sleep, characterizing it as good or bad.4

Pregnancy is a period when many changes occur in life and woman's body, including those related to sleep. During this period, woman goes from a hypersomnia, more common in early pregnancy, to insomnia and frequent awakenings, found at the end of pregnancy.5 6

During gestation, the perception of pregnancy, conscious and / or unconsciously, may fall on a symptom that produces a certain restlessness, drowsiness. Women usually need more sleep than usual. From a psychological standpoint, this symptom expressed a narcistic investment from the mother to her baby, since the emergence of a new life consumes much of the psychic energy of the mother and those who live with her. This period is full of uncertainties and fears, since the loss of the child, through the fantasies of physical and mental integrity (fear of having sick babies and / or disabled), to their concern with maternal condition. The mother feel insecure about the exercise of this new role, whether having other children or not, because each pregnancy is unique and special.7

Taking into consideration that sleep disorders may be associated with behavior, lifestyle and cultural, social and physiological characteristics of individuals. It was aroused the interest in how the quality of sleep of pregnant women. Being nurse the professional of the health area who is in constant contact with pregnant women within the women's health care, it is of great importance that nurses acquire more knowledge about it and become better prepared to offer assistance in this period of their lives. Given the above considerations, we decided to perform the study with pregnant women with regard to sleep in order to be able to promote greater well-being to pregnant women.

OBJECTIVE

- To assess the quality of sleep in pregnant women who underwent prenatal visit to a health center in Vale do Paraíba Paulista.

METHOD

It is a descriptive research, with a quantitative approach. It was conducted with 30 pregnant women who were attended by a health center in the city of Tremembé SP. Data were collected during one month in June and July 2010.

The research project was submitted to the Ethics Committee in Research of the University of Taubaté as CEP Protocol / UNITAU in 127/10, and, after approval, a letter was sent to the secretary of health of the municipality, requesting authorization to perform the research, formalized through the term of commitment of the institution.
The study included only women who agreed to participate and signed a consent form prepared in accordance with the Resolution 196/96 of the National Health Council, which regulates research protocols involving human beings.

Data were collected through a questionnaire consisting of open, closed and mixed questions. The data collection instrument was delivered and collected by the researchers after its completion.

The moment that preceded the completion of the questionnaire was used to request participation in the research, explanation of its purpose, noting that it would be guaranteed the secrecy of the identity of the person and institution involved.

The questionnaire was composed of two parts:

Part A - Identification: characterization of the studied population, a script composed of questions set out by the researchers based on literature;

Part B - questionnaire to obtain data related to the research. A questionnaire was used to quantify sleep quality index according to the Pittsburgh Sleep Quality (PSQI). The questionnaire was adapted and validated. The scale ranges from zero to 21 points, and scores greater than five mean sleep quality ruim. The questions were related to sleep habits only during the previous month.

Results were quantified by the program Microsoft Excel 2003, analyzed, presented in tables and then discussed based on literature.

RESULTS AND DISCUSSION

With regard to marital status, it is observed that 8 (26.67%) women were single and 22 (73.33%) married. Similar results were found in research with pregnant women in a basic unit in Fortaleza, where the predominance of married women was 78.8%. Their ages ranged between 16 and 44, and 9 predominated (30%) women aged 25 to 28 years. Similar results were found in a survey of 277 pregnant women in a maternity hospital in Teresina - PI: The average age of the mothers was 25 years old.

Regarding trimester, 6 (20%) were in the first quarter, 9 (30%), in the second, and 15 (50%) in the third. A similar result was found in the survey of 11 pregnant women in a Safe Motherhood Hospital in the state of Goiás-GO: three women were in the first quarter, four in the second and four in the third trimester of pregnancy.

Among the 30 women, 21 (70%) have children, and, those which have children, 13 (43.33%) have only one child, 7 (23.33%) have two children and only 1 (3.33%) has three children. The ages of the children ranged from eight months to 19 years old. These results support research conducted with 277 pregnant women in a maternity hospital in Teresina - PI: More than half of the population (59.9%) consisted of multiparous women with one to four children, 1.1% had five or more children, and 39% were nulliparous. The spacing of pregnancy, the majority (56.2%) showed a range of two to five years.

In contrast, in another study with 152 pregnant women from service prenatal care for low risk of a specialized hospital, located in São Paulo, primiparous women comprised 53% of the group, and most women who had had previous pregnancies interval between births had more than two years.

With regard to professional activity or occupation, it was found that of 16 (53.33%) who worked, 13 (81.25%) reported that they performed their activities to the day shift, around six to eight hours, and 3 (18.75%), at night, around six to 12 hours. Of those who worked the day shift, one acted in an English school, two at a supermarket, one was a public servant, one a domestic, five worked in stores, one at a private clinic, one was a freelance and one was in an exchange program. Pregnant women who were housewives went about their daily household.

Different results were found in the study with 62 pregnant women at the Health Center Dr. Lawrence Quillici in Bragança Paulista, São Paulo, in 2007. With regard to professional activity or occupation, the majority (53.2%) did not exercise any extra activities, the other, in addition to household chores, had several extra activities, and 8.1% were students.

Among expectant mothers, only 1 (3.33%) practiced physical activity, and indicated
that took walks as a physical activity. In research conducted in three public prenatal care in São Paulo, 38 women were interviewed, and most (70.6%) reported to have decreased their physical activity. Only four (5.8%) reported increased physical activity, and a quarter of the sample reported not having changed physical activity.\(^{12}\)

Importantly, physical activity has benefits for pregnant women, such as prevention and reduction of backaches, sore hands and feet and cardiovascular stress strengthen the pelvic muscles, reduction of preterm deliveries and cesarean sections, greater flexibility and tolerance to pain, control weight gain and increased self-esteem. In relation to the fetus, increased birth weight and improving nutritional status. Exercising in water is the most suitable physical activity and, with regular, moderate and controlled from the beginning of pregnancy, is beneficial to maternal and fetal health.\(^{14}\)

The results regarding the quality of sleep of the sample showed that 21 (72.42%) patients have poor sleep quality. This result confirms the findings of research conducted with 66 pregnant women in a primary care unit of the family III of the Regional Secretariat of the city of Fortaleza, in 2004 and 2005, in which the diagnosis of disturbed sleep pattern was observed in 75.8 % of pregnant women.\(^{9}\) Poor sleep quality as evidenced in the study may be due to behavioral and emotional problems, resulting in sleep restriction.\(^{15}\)

In another survey, conducted with 66 pregnant women in a Health Center in Fortaleza - CE, 72.7% had major defining characteristics increase in physical complaints, drowsiness, tiredness, lack of energy and inability to restore energy after sleep.\(^{16}\)

The pregnancy and childbirth is a period of exclusive peculiar changes and of new experiences for women. It may also be a determining factor for changes in sleep patterns of pregnant women. During pregnancy, women suffer physical and emotional changes, defined by organic changes, due to the expectation created by the new condition of mother and fear of changes in working life as a result of motherhood and seizures linked to new roles they will play in the family context. About two thirds of pregnant women consider their sleep patterns abnormal, and the complaints are related to anatomical and physiological changes associated with pregnancy and uterus size.\(^{17}\)

As for napping, 12 (40%) of the women doze and 18 (60%) do not. Among those who reported napping, 6 (50%) reported that they did so intentionally, and 6 (50%), unintentionally, 4 (33%), for pleasure, and 8 (67%), out of necessity. Despite presenting these difficulties, pregnant women usually gain more sleep and nap more often.\(^{4}\)

In another study, sleepiness was selected when the patient presented constant desire to sleep, even during daytime. The fatigue was characterized by a feeling of exhaustion caused by minimal effort, even during the course of the day.\(^{18}\)

<table>
<thead>
<tr>
<th>Sleep Components</th>
<th>Classification</th>
<th>(n)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective Sleep Quality</td>
<td>Very good</td>
<td>03</td>
<td>10.00</td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>17</td>
<td>56.67</td>
</tr>
<tr>
<td></td>
<td>Bad</td>
<td>07</td>
<td>23.33</td>
</tr>
<tr>
<td></td>
<td>Vary Bad</td>
<td>03</td>
<td>10.00</td>
</tr>
<tr>
<td>Sleep Latency</td>
<td>0</td>
<td>04</td>
<td>13.00</td>
</tr>
<tr>
<td></td>
<td>1 - 2</td>
<td>11</td>
<td>37.00</td>
</tr>
<tr>
<td></td>
<td>3 - 4</td>
<td>15</td>
<td>50.00</td>
</tr>
<tr>
<td></td>
<td>5 - 6</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Duration fo Sleep</td>
<td>7 hours or more</td>
<td>16</td>
<td>53.00</td>
</tr>
<tr>
<td></td>
<td>6 - 7 hours</td>
<td>07</td>
<td>23.00</td>
</tr>
<tr>
<td></td>
<td>5 - 6 hours</td>
<td>05</td>
<td>17.00</td>
</tr>
<tr>
<td></td>
<td>Less than 5 hours</td>
<td>02</td>
<td>7.00</td>
</tr>
<tr>
<td></td>
<td>85% or more</td>
<td>19</td>
<td>64.00</td>
</tr>
<tr>
<td>Habitual sleep efficency</td>
<td>75% - 84%</td>
<td>03</td>
<td>10.00</td>
</tr>
<tr>
<td></td>
<td>65% - 74%</td>
<td>04</td>
<td>13.00</td>
</tr>
<tr>
<td></td>
<td>64% or less</td>
<td>04</td>
<td>13.00</td>
</tr>
<tr>
<td>Seelp disorder</td>
<td>0</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>1 - 9</td>
<td>19</td>
<td>63.00</td>
</tr>
<tr>
<td></td>
<td>10 - 18</td>
<td>09</td>
<td>30.00</td>
</tr>
<tr>
<td></td>
<td>19 - 27</td>
<td>02</td>
<td>7.00</td>
</tr>
</tbody>
</table>
With regard to subjective sleep quality, it is observed in Table 1, that 3 (10%) rated their sleep as very good, 17 (56.67%) as good, 7 (23.33%) as bad; and 3 (10%) as very bad.

Although most pregnant women have rated their sleep as very good or good, the results of the questionnaire were controversial because 21 of them scored more than five, therefore regarded with poor sleep quality. Among pregnant women with poor sleep quality, 11 (53%) responded that they considered their sleep good, 7 (33%), poor sleep, and 3 (14%), very bad.

The nine women who scored less than five were considered good sleep quality: 6 (67%) reported that their sleep was good, and 3 (33%), it was very good, which corresponds to the marks obtained in the results. In relation to sleep latency scores were: 4 (13%) with score of zero, 11 (37%) with scores between 1 and 2, 15 (50%) with scores of 3 or 4.

The duration of sleep, it can be seen that 16 patients (53%) sleep seven hours or more, 7 (23%), six to seven hours, 5 (17%), from five to six hours, and 2 (7%), less than five hours per night and in the case of sleep efficiency, it is identified that 19 (64%) have an efficiency of 85% or more of sleep, 3 (10%) between 75% and 84%, 4 (13%) between 65% and 74%, and 4 (13%), 64% or less.

Sleep disorders are presented in 30 (100%) patients, those who scored between 1 and 27. Although all women had some type of sleep disorder, nine (30%) had good quality of sleep.

Pregnancy causes changes in the quality and in the sleep pattern of women. This situation increases even further at the end of pregnancy as the birth approaches, ie, in the third quarter, in which approximately 90% of women had scores indicating poor sleep quality, according to a study with 97 pregnant women in Alfenas city-MG in 2008. In this context, it is necessary to establish guidelines to promote health-related quality of sleep of pregnant women, as a systematic process in health care, since sleep disturbances may influence the quality of life of women.5

Regarding the use of medication, 29 (97%) of pregnant women do not use sleeping medication, and only (3%) only once a week. It is believed that this figure is contraindicated due to these types of drugs during pregnancy.

With regard to dysfunction during the day, 25 (83%) had some sort of malfunction, 5 (17%) showed no dysfunction. In a survey of 66 pregnant women, a basic health unit of the family III of the Regional Secretariat of the city of Fortaleza, in 2004 and 2005, there were: three or more awakenings during the night (90.9%); daytime sleepiness (66.7%), fatigue (65.2%), verbal complaints of not feeling well rested (54.5%), anxiety (48.5%), sleep maintenance insomnia (34, 8%), decreased ability to perform functions (33.3%), total sleep time less than the standard age (27.3%) and inability to concentrate (24.2%). These data comes out to those related to sleep disorders.

English/Portuguese

Santos TCMM, De Faria AL, De Martino WMF et al. Quality of sleep in pregnant women. J Nurs UFPE on line. 2012 Apr;6(4):830-7
In Table 2, it can be observed that among expectant mothers, the most frequent complaints were 21 reported feeling pain; 27 get up to go to the bathroom, take 24 mentioned more than thirty minutes to fall asleep and wake up in the night or very early, 15, bad dreams or nightmares; 13, difficulty breathing, feeling, feeling too cold or too hot, and, unless the complaint was reported by 11 women who reported coughing or snoring loudly.

In the research of the National Sleep Foundation (NSF), 78% of women reported more disturbed sleep during pregnancy, compared to sleep in other periods of their lives. The study showed that changes in sleep occur in 13-20% of women in the first trimester and that increase in 66 to 90% during the third quarter of pregnancy.4 The second trimester is called the best stage of pregnancy. The discomfort the first few months are no longer so evident, and the belly is not yet very large.13

Research was carried out with eleven pregnant women attending antenatal care in Safe Motherhood Hospital in the state of Goiás-GO. A pregnant woman in the first trimester and two in the second expressed concern, willingness to talk and thoughts that seemed to be related to the concern of trying to sleep and fear of insomnia. All pregnant women in the third trimester complained of orthopnea, inguinal pain, cramps, uncomfortable position, nocturia, thoughts ruminants and unsatisfactory night rest, which may be related to changes in the third trimester of pregnancy.11

During pregnancy many changes occur, caused by hormonal action and physics of this phase. These changes must be cleared and supplied, in order to preserve the welfare and maintain good health of the woman and baby. Thus, the nurse holds an important role in monitoring pregnant women at low and high risk, who need advice and care for that pregnancy is conducted to the satisfaction, in order to prevent prematurity, or risks to health of mother and fetus.16

With the birth of the baby, most of these problems disappear. But the new situation passes to be lived: adapting to a new rhythm of sleep because the baby needs to be breastfed during the night, and can often replace nighttime sleep by day. To normalize the situation, establishing routine with the baby to sleep, the woman faces sleep deprivation, which may favor the onset of postpartum depression.4

With human growth, besides genetic aspects of chronobiological, disorders occur secondary to various factors such as aging, stress, disease and organic chronotype. All these changes and disorders (considered physiological) that the body suffers cause the sleep architecture changes and has, over time, individuals change the times you used to sleep.19

CONCLUSION

As regards the quality of sleep of pregnant women, it is observed that, for the most part have scores higher than five, which is poor sleep quality. The quality of sleep is bad for pregnant women and may be related to the increased frequency of urination during the night, the fact of waking up too early or overnight, it takes longer than 30 minutes to sleep and feeling body aches and anxiety relating to delivery and your child.

The results of this research may help identify the causes of sleep disorders and, thus, health professionals may create measures of control, comfort and prevention, in order to improve the quality of sleep during pregnancy.

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