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Original Article

Assessment of Sleeplessness Among Pregnant Women of Third Trimester

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ABSTRACT

Sleep disorders, which are among the foremost important medical care issues, are prevalent in pregnancy. The present study is a descriptive-analysis of the prevalence of sleeplessness in the third trimester of pregnancy. **Objective:** To assess the sleeplessness among pregnant women of third trimester. **Methods:** A descriptive cross-sectional research study design was used to assess the sleeplessness among pregnant women of third trimester by using the adopted and modified "assessing sleeplessness questionnaire short-form" (PSQ-17). The population was targeted by the purposive sampling technique and 131 population size was used which was deliberated from Solvin's formula. Data were analyzed through (SPSS) version-21. **Results:** The descriptive study and the percentile showed that sleeplessness affect the health of pregnant women of third trimester. The Cronbach Alpha, Bartlett's and KMO values have been checked to insure the validity and reliability in our context. The values show positive and significant results and tools were consider as reliable and valid for performing statistical analysis. Study results showed that the majority of the pregnant women which was 95% reported that they are feeling unrested during the day. The majority of pregnant women which was 65% reported that they having trouble during falling asleep. **Conclusions:** Sleeplessness is one of the indications of high-risk pregnancies and maternal and infant mortality. Sleeplessness can cause mental and physical problems in the pregnant women as well as for the fetus. As a result, maintaining physical and mental health of pregnant mothers is of great importance.

INTRODUCTION

Rest is significant for ordinary, sound capacity. Its essential capacity is rest and reestablishing the body's energy levels [1]. Further, rest is a functioning interaction where digestion, tissue rebuilding, memory solidification, and support of general homeostatic equilibrium happens. Ladies are around 1.6 occasions at higher danger for a sleeping disorder than guy [2]. Pregnant ladies are undeniably bound to experience the ill effects of a rest problem because of hormonal, physical and physiologic changes Rest is modified during pregnancy has been known for calm once in a while [3]. The first trimester of pregnancy is generally connected with expanded daytime drowsiness just as all out-rest time. Rising chemicals levels during this period may somewhat represent these changes. Progesterone is known to apply soothing impacts and organization of exogenous progesterone [4]. Physiological changes that happen during pregnancy might has been shown to diminish period of rest starting and change rest incline ladies to worsening of prior rest cluttered breathing or to the improvement of new illnesses [5]. The vertical uprooting of the stomach by the expanding uterus causes an ever-evolving decline in Functional Residual Capacity (FRC), which diminishes by 10 to 25% at term. The reduction in FRC during pregnancy and the ordinary decrease in FRC during rest improve the probability of little aviation route conclusion. Likewise, chest divider and complete respiratory consistence are diminished in late pregnancy [6]. In the third trimester of

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pregnancy, most pregnant ladies experience windedness while recumbent [7]. The powerlessness to expect a typical resting stance might altogether affect a pregnant lady's capacity to start and keep up with rest [8]. Rest designs likewise rely upon the span of pregnancy [9]. The measure of time spent in Slow Wave Sleep (SWS) was higher at 1727 and 28 to 39 weeks development than at 8 to about four months growth. During late pregnancy, there is a decrease in the level of time spent in rest, and a critical expansion in level of time spent in stage I rest [10]. Starting from the get-go in pregnancy, rest can be upset by urinary recurrence, queasiness, leg cramps, and different inconveniences. As pregnancy advances, hazard factors for rest problems, for example, expanded weight and rest disarranged breathing (wheezing, rest apnea), or weakness and anxious legs disorder become more evident. During the third trimester, ladies ordinarily report 2 to 3 enlightenments during the evening and around 7are different kids at home who are not yet staying asleep from sundown to sunset [11]. 5 significant stretches of rest, yet some report snoozing only 3 or 4 hours, particularly expecting there with more true rest measures, for example, wrist actigraphy or polysomnography, pregnant ladies rest around 30 minutes short of what they abstractly report. Rest unsettling influences (either a sleeping disorder or extreme lethargy) start and continue over the span of can't be clarified based on other clinical, mental, or rest problems. Rest unsettling influence is a typical protest during pregnancy, especially in the third trimester [12]. The event of mid-rest arousals that is a principle cause of upset rest during the last piece of pregnancy has been all around depicted. A longitudinal report by Baratte *et al.*, zeroed in on the predominance and wellsprings of mid rest renewals in an example of 25 ladies from assumption through the third trimester of pregnancy. Utilizing information from rest journals, they observed that the quantity of enlightenments during the night was most noteworthy in the third trimester expanding 2 overlap from the bias time frame [13]. Also, Bowman *et al.*, tracked down a relationship between helpless rest in the third trimester of pregnancy and obstetrical result in an example of 131 ladies. Ladies averaging under 6 hours of rest each night had longer work and a higher cesarean area rate of birth than ladies getting more long periods of rest. One component for these antagonistic results identified with rest unsettling influences may be a diminished capacity to bear crafted by birthing and raised impression of inconveniences during [14]. Considering the health benefits of good sleep for pregnant women, it is crucial to find ways to tackle the increasing level of sleeplessness during the pregnancy and improve the sleep quality of this population [15]. The present study was a descriptive-analysis of the assessment of sleeplessness among women in the third trimester of pregnancy [16].

METHODS

A descriptive cross- sectional research study was used to assess the level of sleeplessness among pregnant women of third trimester. The study setting was Gynae OPD of Jinnah Hospital Lahore. The study took approximately 9 months. The study targeted population was pregnant women of third trimester (Jinnah Hospital Lahore). The purposive sampling technique used. The study sample was calculated by Slovin's formula which is 131. The pregnant women of third trimester was included in the study. The Gynae OPD patients were included in the study. Pregnant women with other co morbidity was excluded from the study. Second trimester was excluded from the study. 1st trimester excluded from the study. The current study examines "The level of sleeplessness among pregnant women of third trimester". Sleeplessness assessed through an adapted research tool from Nerlens nominal questionnaire. Questionnaire consisting of 6 items grading as "yes" or "no". Initially permission was gathered from Jinnah Hospital Administration. After taking permission population was targeted according to study inclusion criteria. The purpose of the study was explained and consent taken. The question was filled on the behalf of patient and responses were collected. In this study data were gathered from the patients of Gymea OPD of Jinnah hospital Lahore. Furthermore, patients targeted through purposive sampling and consent taken after assurance of data privacy and purpose of data collection also be informed. All data analysis was performed by using the statistical software SPSS version 21.0. A descriptive analysis was applied. Descriptive cross- sectional research study was used. The study sample was calculated by Slovin's formula which is 131. Frequency and percentage were calculated. Bar charts are formed for quantitative values. The Cronbach Alpha, Bartlett's and KMO values have been checked to insure the validity and reliability in our context. The values show positive and significant results and tools were consider as reliable and valid for performing statistical analysis.

RESULTS

Table 1 shows that from total no of participants who responded in this study. Those with the age group 15-25 years were 41(31.1%), those with age group 25-35 years were 66(50.45%), those with age group 35-45 years were 22(16.8%), and those having age group above 45years were only 2(1.5%). Those who are illiterate were 42(32.1%), those who have primary education were 50(38.2%), those who have secondary education were 26(19.8%), and those having tertiary education were only 13(9.9%). Those who employed were 65(49.6%), and those unemployed were

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only 66(50.4%).

Table 1: Demographic Variables

Variable	Frequency (%)
Age	
15-25	41(31.3%)
25- 35	66(50.4%)
35-45	22(16.8%)
Above 45	2(1.5%)
Education	
Nil	42(32.1%)
Primary	50(38.2%)
Secondary	26(19.8%)
Tertiary	13(9.9%)
Occupation	
Employed	65(49.6%)
Unemployed	66(50.4%)

Table 2 shows that from total no of participants who responded about the question "Having trouble falling asleep", those who respond yes were 87(66.4%), and those who respond no were 44(33.6%). About the question "Feeling unrested during the day", those who respond yes were 74(56.5%), and those who respond no were 57(43.5%). About the question "waking up too early", those who respond yes were 26(19.8%), and those who respond no were 105(80.2%). About the question "Sleepy during the day", those who respond yes were 38(29.0%), and those who respond no were 93(71.0%). About the question "Not getting enough sleep", those who respond yes were 37(27.5%), and those who respond no were 95(72.5%). About the question "Snoring", those who respond yes were 46(35.1%), and those who respond no were 85(64.9%).

Table 2: Sleeplessness History

	Frequency (%)
Having trouble falling asleep	
Yes	87(66.4%)
No	44(33.6%)
Feeling unrested during the day	
Yes	74(56.5%)
No	57(43.5%)
Waking up too early	
Yes	26(19.8%)
No	105(80.2%)
Sleepy during the day	
Yes	38(29%)
No	93(71.0%)
Not getting enough sleep	
Yes	36(27.5%).
No	95(72.5%)
Snoring	
Yes	46(35%)
No	85(64.9%)

The descriptive study was examining the "assessment of sleeplessness among pregnant women of third trimester". Also associated with snoring during pregnancy are symptoms like awakening with sensation of choking. Snoring has often been seen to increase during the third trimester and resolve several months after delivery. In a study 27% of otherwise healthy women reported snoring in the third trimester. In our study, the overall prevalence of snoring was 13.5%, with 21% of pregnant women having habitual snoring in the last trimester, whereas only 5% of pregnant subjects reported snoring in the early pregnancy. The study results show that the total respondents who respondent to the study all were pregnant females. The tool used for "the assessment of sleeplessness among pregnant women of third trimester "was adopted. The CRONBACH ALPHA, BARTLETT'S and KMO values have been checked to insure the validity and reliability in our context. The values show positive and significant results and tools were consider as reliable and valid for performing statistical analysis. Descriptive analysis showed that from total participants who responded about the question that "Having trouble falling asleep", those who respond yes were 87(66.4%), and those who respond no were 44(33.6%). Total no. of participants who responded about the question "Feeling unrested during the day", those who respond yes were 74(56.5%), and those who respond no were 57(43.5%). Total no of participants who responded about the question "waking up too early", those who respond yes were 26(19.8%), and those who respond no were 105(80.2%). Total no of participants who responded about the question "Sleepy during the day", those who respond yes were 38(29.0%), and those who respond no were 93(71.0%). Total no of participants who responded about the question "Not getting enough sleep", those who respond yes were 37(27.5%), and those who respond no were 95(72.5%). Total no of participants who responded about the question "Snoring", those who respond yes were 46(35.1%), and those who respond no were 85(64.9%).

DISCUSSION

This was, the best of our knowledge, Pakistan's first study on the assessment of sleeplessness among pregnant women of third trimester. We discovered that 72% of the participants having the problem of sleeplessness, which is higher than prior findings in the general population [5, 17]. A study found a prevalence of insomnia of 9.5% in the general population as defined by DSM-IV and ICD-10 [18]. The current study found that pregnant women who had sleeplessness experienced more subjective physical discomfort. Pregnancy-related insomnia can be induced by physiological and anatomical changes such as urine frequency, nausea, vomiting, fetal movement, and pain [19]. Our current study found that, the pregnant women who were sleep deprived experienced increased subjective physical discomfort. Insomnia during pregnancy can be

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caused by physiological and anatomical changes such as increased urination frequency, nausea, vomiting, fetal movement, and pain [5]. In conclusion, our study of Pakistanis pregnant women in any trimester of pregnancy found that two third of pregnant women had sleeping problems and about a fifth had a clinical diagnosis of insomnia [20]. Several risk factors of insomnia during pregnancy were similar as in other population with insomnia, such as depressive symptoms and excessive daytime sleepiness. Physical discomfort during pregnancy was an important risk factor for the pregnant women with insomnia. Clinicians need to pay more attention to the importance of physical complaints especially late in pregnancy. These risk factors should be routinely evaluated during antenatal care and appropriate intervention should be provided for pregnant women with insomnia [21]. In terms of sleeping disorders, the study results revealed that less than half of the study sample snored throughout the first, second, third, and fourth quarters of pregnancy, respectively. This conclusion is comparable to that published by Effati-Daryani *et al.*, in which pregnancy has been associated to sleep changes [22]. Pregnant women frequently complain insomnia, snoring, and restless legs syndrome. Furthermore, in their study of sleeping habits during pregnancy among Japanese women, Ghante *et al.*, [23]. Syed *et al.*, discovered that in the third trimester, sleep disordered breathing symptoms such as snoring, nocturnal apnea, and daytime drowsiness. The rise in frequent snoring was very noticeable [15]. In addition, Smyka *et al.*, reported on sleeping difficulties in a sample of Egyptian high-risk pregnant females in their study of sleeping disorders [4]. The study's findings indicated that the main causes of difficulty falling asleep among the majority of low risk and high-risk pregnant women during the various trimesters of pregnancy were getting up and walking around, legs getting restless, legs feeling hot, burning, itching, and fetal movement. These findings are consistent with those reported by Wang *et al.*, who reported that the causes of sleep disorders included physical problems such as nausea [24].

CONCLUSIONS

Several conclusions can be derived from the present study. Due to their inability to sleep, women began snoring and exhibited symptoms of sleeping apnea such as choking upon awakening, pausing in breathing, and mouth breathing. Leg cramps, getting up and moving about, and fetal movements were the most frequent causes of trouble falling asleep.

Authors Contribution

Conceptualization: FG, HS, SST
Methodology: HS
Formal analysis: HS
Writing-review and editing: FG, HS, SST

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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