Level of Insomnia and Socio-demographic Characteristics of Pregnant Women

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Abstract
Pregnancy could be a common event for girls of reproductive age and is mostly viewed as a joyful occasion. It's the foremost sensitive and most pleasant part of a woman's life. Sleep disorder throughout pregnancy is related to an extended labor and inflated risk of caesarian section furthermore as cardiovascular disorder, diabetes, neurological disorders, respiratory problem, and mood disorder and may result in a restriction of physical activities and a diminished quality of life. Insomnia is one of the foremost issues experienced in pregnancy. This study was a cross sectional study carried out on pregnant women from 1st January to 31st December, 2017 in family planning corner of Dhaka medical College Hospital. Among 248 respondents majority of them were in 18-25 years age group (58.5%), most of the respondents were Muslim (97.6%), half of the respondents family type was nuclear (50%). Majority of the respondent’s educational level were S.S.C (46.4%). Most of the respondents were housewife (96.8%) and rest were employed (3.2%). Majority of their family income were 10000- 20000tk (49.2%). Majority of them had no clinically significant insomnia (46.8%), followed by sub threshold insomnia (31.5%), moderate severity insomnia (19.4%) and rest of them had severe insomnia (2.4%). There is no significant association between level of insomnia and age of respondents (p=0.62), type of family (0.60), level of education (p=0.83), husbands occupation (p=0.61), monthly family income (p=0.72). In this study more than half of respondents experienced different level of insomnia. Adequate information regarding sleep should be given to pregnant women during antenatal check-up through health care provider to improve their general health, physical health, social relationship as well as quality of life.

Keywords: Insomnia, Socio-demographic Characteristics, Pregnant Women.

Introduction
Pregnancy could be a common event for girls of reproductive age and is mostly viewed as a joyful occasion. It's the foremost sensitive and most pleasant part of a woman's life¹. Sleep patterns, ability to perform tasks of daily living, and quality of life within the pregnant women are stricken by systematic variations caused by hormonal, emotional, mental, and physical factors². It's conjointly a time once extended physical and emotional changes occur³. It's one in all the foremost necessary periods in girl’s life. Despite
being a phenomenon, physiological condition brings
on major physiological, psychological, and social
changes. Several factors will have an effect on the
standard of lifetime of pregnant women, specially
sleep alteration, worries, anxiety, depression. Insomnia is one in all the foremost existent health
issues within the general population worldwide. Physiological condition has been connected to
alteration in sleep. Sleep disorder throughout pregnancy is related to extended labor and
infected risk of caesarean section furthermore as cardiovascular disorder, diabetes, neurological
disorders, respiratory problem, and mood disorder and may result in a restriction of physical
activities and a diminished quality of life. Insomnia is one of the foremost issues experienced in
pregnancy. Quality of sleep was deteriorated throughout pregnancy, and it is diminished with the increasing
gestational week. Sleep disorders in pregnancy indicates the rise risk of preterm birth, low birth
weight. It inflated complications throughout pregnancy and delivery, prolonged labor, caesarean
section, depression throughout pregnancy and after delivery furthermore as negative impact on families
and society. Numerous studies have documented vital elevations in psychological symptoms
throughout maternity together with depression and anxiety. Even in uncomplicated pregnancies the
physical and emotional changes that accompany maternity will alter women’s ability to perform in
their numerous roles, ultimately impacting their quality of life. Many pregnant mother experience
frequent night waking, insomnia, difficulty falling and staying a sleep, and restless sleep by the tip of their maternity. Disorders like sleep disorder, apnea, restless leg syndrome, parasomnias and hypersomnia will begin or be exacerbated throughout maternity. Physiological changes like exaggerated progesterin and gonadotrophic hormone levels increase in maternal size, fetal movement and bladder distention will doubtless justify a number of the disturbances of a pregnant woman’s sleep. Pain may cause poor sleep quality. Sleeping constitutes concerning 1/3 of the human life cycle that is an imperative basic
daily activity and affects the life quality and health of the people with its physiological, psychological
and social dimensions. Sleep may be a physiological need for all human being. Sleep is important each for physical and psychological
health. Therefore, it's thought to be a distinguished health variable that affects quality of life and
wellness. One among the prominent factors affecting sleep is different periods of life. Ageing is
associated with an exaggerated prevalence of sleep related problems. Seven hours of sleep per day
for those higher than the age of forty five is taken into account normal. The prevalence of difficulties
in sleeping is twice as high among middle-aged women as among middle-aged men. Age-related hormonal changes have an effect on
sleep. Difficulties in sleeping happens from estrogen withdrawal during menopause. Concerning 2/3 of the pregnant mother contemplate
their sleep pattern abnormal and therefore the complaints are connected to the anatomical and
physiological changes related to pregnancy and therefore the size of the womb. It gets more difficult
to seek out a comfortable position throughout sleep and therefore the pressure caused by the size of the fetus will increase the amount of bathroom visits throughout the night. Insomnia and poor sleep
quality will have a considerable impact on a pregnant woman’s quality of life. Roughly two thirds of pregnant women believe their sleep to be
abnormal and associate it with the continuing physical changes and changes in their overall size.

Materials and Methods
Study Design: This study was a cross sectional study carried out on pregnant women.
Study Period: This study was conducted over a period of one year starting from 1st January to 31st
December, 2017. Extensive literature was reviewed from the beginning of the study till report writing.
Study Place: Dhaka Medical College and Hospital was selected for data collection. It was a
government hospital situated near central Saheed Minar, Dhaka. Pregnant women came for antenatal
check-up in family planning corner of Dhaka medical College Hospital. In this site, antenatal care, post natal check-up, family planning information and different types of health care are given.

Study Population: The participant of this study was pregnant women in all trimester.

Selection Criteria
Inclusion Criteria
- Pregnant women above 18 years.

Exclusion Criteria
- Having any chronic disease (e.g. heart disease, diabetes mellitus, asthma etc.)
- Severely ill
- Mental disorder

Sampling Technique: After considering inclusion and exclusion criteria respondents were selected conveniently among pregnant women who came for antenatal check-up at Dhaka medical college and Hospital.

Sampling Unit: Each pregnant woman was sampling unit.

Sample Size: Calculated sample size was 248.

Research Instrument
Insomnia Severity Index
Insomnia Severity Index was added to identify the level of insomnia among the respondents. It is a worldwide recognized tool for determining the level of insomnia. Insomnia severity index was developed by Charles M. Morin. It has 7 item questions which is designed to assess the nature, severity and impact of insomnia. The ISI is widely used as an assessment tool by health care professional and researchers in a variety of settings. It was validated in population of Spain, French, Arab, India, German, Korea, China, Iran and Italy and the scale has been translated also in these languages form. According to the Index the level of insomnia as per scoring – No clinically significant insomnia (0-7), Sub threshold insomnia (8-14), Moderate severity insomnia (15-21) and severe insomnia (22-28).

Data Collection Technique
After taking permission from Director of Dhaka Medical College and Hospital. Data were collected from the respondents by face to face interview with semi-structured questionnaire. The interview was conducted by maintaining privacy and confidentiality as far as possible. Before data collection, the details of the study were explained to each respondent and informed consent was taken from the respondents.

Results
Among 248 respondents majority of them were in 18-25 years age group (58.5%), followed by age group 26-33 years (36.3%) and 34-40 years (5.2%). Mean age was 24.87 ± 4.78(SD) years where the minimum age was 18 years and maximum age was 40 years. Most of the respondents were Muslim (97.6%) and rest were Hindu (2.4%). Half of the respondents family type was nuclear (50%) and another half was from joint family (50%). Majority of the respondents (48.8%) had 3-4 family members followed by 5 and above family members (39.9%) and 1-2 family members (11.3%). Majority of the respondents had ≤2 children (93.6%) and only 6.4% had more than two children. Majority of the respondents had children age between 1-5 years (53.2%) and rest of them had children above 5 years (12.8%). Mean age was 5.74 ±2.88 years, where the minimum age was 1 year and maximum age was 20 year. Majority of the respondents educational level were S.S.C (46.4%) followed by H.S.C (19.4%), P.S.C (15.3%), and graduation and above (12.9%), can sign only (5.2%) and only 0.8% were illiterate. Most of the respondents were housewife (96.8%) and rest were employed (3.2%). Majority of the respondents occupation were service (41.9%) and business (41.1%), followed by driver (6.0%), migrant worker (4.0%) and others (6.9%) which include agricultural work, mason, hand weaver, garments worker. Majority of their family income
were 10000-20000tk (49.2%), followed by 20000-30000tk (20.0%), up to 10000 (16.9%) and the rest were above 30000tk (13.7%). Majority of their monthly family expenditure were 10000-20000tk (56.9%), followed by up to 10000tk (23.0%), 20000-30000tk (16.1%) and the rest were above 30000tk (4.0%). Majority of them had no clinically significant insomnia (46.8%), followed by sub threshold insomnia (31.5%), moderate severity insomnia (19.4%) and rest of them had severe insomnia (2.4%). There is no significant association between level of insomnia and age of respondents (p=0.62), type of family (0.60), level of education (p=0.83), husbands occupation (p=0.61), monthly family income (p=0.72).

Figure 1: Distribution of the respondents by their age

Figure 2: Distribution of the respondents by their religion

Figure 3: Distribution of the respondents by number of family member

Figure 4: Distribution of the respondents by their educational qualification

Figure 5: Distribution of the respondents by their occupation
Discussions
In this study majority (48.3%) of the respondents who are in the age group 18-25 years had no clinically significant insomnia who had severe insomnia majority (7.7%) of them are in the age group 34-40 years. The difference is not significant (p>0.05). In another study it was said that there is no significant relationship between educational level and quality of sleep in pregnant women. In table 45 among variables level of insomnia was stronger predictor of general health (p=0.010, CI: -0.255, -0.035) while controlling other variables and in table 46 among variables level of insomnia was stronger predictor of physical health (p=0.000, CI: 0.260, 8.78) and occupation of respondents is another predictor (p=0.039, CI: -6.103,-4.041). To find out the prediction ability of variables to social relationship multiple linear regression was done and the model is significant (p=0.000). among variables education of respondents was stronger predictor of social relationship (p=0.000, CI: 1.466, 5.055) and level of insomnia was a predictor of social relationship (p=0.003, CI: -4.265, -0.867) while controlling other variables.

Conclusions
In this study more than half of respondents experienced different level of insomnia. Adequate information regarding sleep should be given to pregnant women during antenatal check-up through health care provider to improve their general health, physical health, social relationship as well as quality of life.

References

