

A Cross-Sectional Study to Assess Sleep Quality and It's Associated Clinical and Selected Psychosocial Factors Among Primigravida Mothers Attending OBG OPD's of Selected Hospitals of Bagalkot, Karnataka

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Abstract

Original Research Article

Sleep is a normal physiological phenomenon. During pregnancy, women are more likely to experience sleep disorders and poor sleep quality are influenced by mechanical and hormonal factors. Poor sleep can hinder daily activities and lead to adverse pregnancy outcomes. Sleep disturbances may be associated with so many clinical factors like heartburn, leg cramps, excessive weight gain, constipation, back ache, hyper emesis gravidarum and history of medical illness etc. Sleep pattern may be impaired in primigravida mothers due to psycho social factors like stress and anxiety. Sleep disturbances may be associated with increased risk of adverse delivery outcomes. Most studies in the past have focused only on specific sleep disturbances, evaluating a heterogeneous population. Hence this cross-sectional study assessed the sleep quality and its associated clinical and selected psychosocial factors among primigravida mothers. The study aimed to explore the sleep quality and its associated clinical and psychosocial factors among primigravida mothers attending outpatient departments (OPDs) in selected hospitals in Bagalkot. Given the unique challenges faced by first-time mothers, understanding these factors is crucial for improving maternal health outcomes.

Aims:

1. To assess the level of sleep quality among primigravida mothers.
2. To assess the associated clinical factors among primigravida mothers.
3. To assess the selected psychosocial factors (stress and anxiety) among primigravida mothers.
4. To correlate between sleep quality and selected psychosocial factors (stress, anxiety) among primigravida mothers.
5. To associate clinical and psychosocial factors with levels of sleep quality among primigravida mothers.
6. To associate selected socio demographic variables of primigravida mothers with levels of sleep quality and psychosocial factors (anxiety and stress.)

Methods and Material: For the present study, descriptive cross-sectional survey research design has been adopted. Purposive sampling technique was used to select the sample for the present study. The study was conducted on 100 Primigravida Mothers attending at the OBG OPD's of selected hospitals of Bagalkot. Data were collected using standardized instruments: the Sleep Quality Scale, Generalized Anxiety Scale (GAD-7), and Cohen's Perceived Stress Scale. This approach allowed for a comprehensive assessment of sleep quality alongside anxiety and stress levels. Data were analyzed by using descriptive and inferential statistics in terms of mean, percentage by distribution, Karl Pearson for correlation and chi-square test for association. **Results:** The results indicated that a significant majority (98%) of participants reported fair sleep quality, while only 2% reported poor sleep quality. This suggests that while most mothers experience adequate sleep, there is still a notable portion that may be at risk for sleep disturbances. The study found that 73% of mothers experienced mild anxiety, and 88% reported moderate stress levels. These findings highlight the psychological burden that can accompany pregnancy, which may impact overall well-being and sleep quality. A significant correlation was identified between anxiety levels and sleep quality, indicating that higher anxiety is associated with poorer sleep quality. However, no significant association was found between stress levels and sleep quality, suggesting that anxiety may play a more critical role in affecting sleep among primigravida mothers. The study identified certain clinical factors that influenced sleep quality and psychosocial factors. For instance, clinical issues such as gestational weight gain and physical discomfort were found to correlate with increased anxiety and stress levels, which in turn affected sleep quality. This highlights the importance of addressing clinical factors in prenatal care to

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improve sleep outcomes. While some socio-demographic variables, such as family monthly income, showed a significant association with stress levels, other variables like age and education did not demonstrate a significant impact on sleep quality. This suggests that socio-economic factors may play a role in influencing psychosocial stressors, which can subsequently affect sleep quality. **Conclusion:** The study emphasizes the importance of addressing both sleep quality and psychosocial factors in primigravida mothers. By recognizing and mitigating these issues, healthcare professionals can enhance maternal health and well-being, ultimately benefiting both mothers and their infants. Further research is warranted to explore effective interventions and long-term outcomes related to sleep quality in this population. The high prevalence of sleep disturbances and associated psychosocial factors underscores the need for targeted interventions. Healthcare providers should consider implementing screening for anxiety and stress in prenatal care, along with strategies to improve sleep quality.

Keywords: Primigravida mothers, Sleep quality, Clinical factors, Psycho-social factors, Stress and Anxiety, Socio-demographic variables.

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INTRODUCTION

Pregnancy is a period of significant physiological, psychological, and social changes, and sleep is a vital physiological process for the well-being of both the mother and the fetus. Poor sleep quality is a common problem during pregnancy and can be influenced by hormonal and mechanical factors. Sleep disturbances are a global health concern, with a US National Sleep Foundation survey reporting that 78% of women experience disturbed sleep during pregnancy. Poor sleep quality has been linked to adverse pregnancy outcomes such as hypertension, gestational diabetes, and longer labor times, as well as psychiatric disorders like depression and anxiety.

The need for this study arose from the growing body of research demonstrating a high prevalence of sleep disturbances in pregnant women. The study aimed to specifically assess sleep quality and its associated clinical and psychosocial factors among first-time mothers in the Bagalkot region of Karnataka.

MATERIAL AND METHODS

Study Design and Participants

This study employed a descriptive cross-sectional survey research design with a quantitative, non-experimental approach. The study population consisted of 100 primigravida mothers, selected using a purposive sampling technique, who were attending OBG OPDs at selected hospitals in Bagalkot.

Data collection was carried out using standardized instruments: a structured questionnaire for socio-demographic and clinical characteristics, a Sleep Quality Scale (SQS), the Generalized Anxiety Scale (GAD-7), and Cohen's Perceived Stress Scale. The reliability of the tools was established with Cronbach's alpha coefficients of 0.99 for the sleep scale, 0.891 for the GAD-7, and 0.96 for the stress scale. The SQS score was categorized as good (0-27), fair (28-56), and poor (57-84). Anxiety was categorized into minimal (0-4), mild (5-9), moderate (10-14), and severe (>15). While

stress was categorized as low (0-13), moderate (14-26), and high perceived stress (27-40).

Data were analyzed using descriptive statistics (frequency, percentage, mean, median, range, and standard deviation) and inferential statistics, including Karl Pearson's correlation and the Chi-square test.

Instruments

Description of Tool:

In the present study data was collected by researcher herself after obtaining permission from concerned authority and informed consent from subjects in the following sections;

SECTION A: Socio-demographic and clinical characteristics Primigravida mothers:

It includes information about age, religion, education status, type of family, occupation of Mother, spouse support, family monthly income, residential status, weeks of gestation, leg Cramps, Hyperemesis gravidarum, sleep medication, history of medical illness, Gestational Weight gain, Heart burn, Constipation, Frequent Urination and Back pain.

SECTION B: Sleep Quality Scale (SQS) to assess sleep disturbance:

It consists of 28 items, the SQS evaluates 6 domains of sleeping quality; day time symptoms restoration after sleep problems initiating and maintaining sleep, difficulty waking and sleep satisfaction, items are rated using a four points Likert's scale (0=rarely, 1= sometimes, 2=often, 3=almost always). Total score range between 0-84 with higher score denoting more acute sleep disturbance.

SECTION C: Generalized Anxiety Scale: (Gad-7 Scale)

It will be used to assess the anxiety of primigravida mothers. It is a 7 item scale each item is scored on 0-3 Likert scale. Total score ranges between 0-21. Higher score indicates higher level of anxiety.

SECTION D: COHEN'S perceived stress scale to assess stress among primigravida mothers. It is a 10 item scale each item is scored on 0-4 Likert scale. Total score

ranges between 0-40. Higher score indicates higher level of stress.

Scoring of Sleep Quality Scale:

1. Good sleep quality: 0 - 27
2. Fair sleep quality: 28 - 56
3. Poor sleep quality: 57 -84

Scoring of Generalized Anxiety Scale:

1. 0-4: minimal anxiety.
2. 5-9: mild anxiety.
3. 10-14: moderate anxiety.
4. >15: severe anxiety.

Scoring of Percieved Stress Scale:

Individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived,

- ▶ Scores ranging from 0-13 would be considered low stress.
- ▶ Scores ranging from 14-26 would be considered moderate stress.
- ▶ Scores ranging from 27-40 would be considered high perceived stress.

Data Collection Procedures

Prior permissions were taken from relevant institutions before the beginning of data collection procedure. The study participants were identified during the study period at HSK Hospital, District Government Hospital Bagalkot. Every primigravida mother with sleep disturbances, stress and anxiety who fulfilled the

inclusion criteria was approached for data collection. Consent was obtained by the participants underwent the structured questionnaire which lasted approximately for 20 to 30 minutes. All the information collected was based on patient's self-report.

Data Analysis

The data obtained was analyzed in terms of achieving the objectives of the study using descriptive and inferential statistics. Organized data in master sheet. Frequency and percentage distribution was used for analysis of socio-demographic and clinical characteristics. Calculated mean, median, range and Standard Deviation of sleep quality, anxiety and stress scores of Primigravida mothers. Applied Karl Pearson order correlation to find relationship between sleep disturbance and psycho-social factors among Primigravida mothers. Applied Chi-square test to find the association between socio-demographic and clinical characteristics with sleep quality and psycho-social factors among Primigravida mothers.

RESULTS

Part-I: Description of Sample in terms of their socio-demographic and clinical characteristics.

This section deals with the description of sample characteristics and is explained in frequency and percentage and presented in graphs.

Table-5.1: Socio-demographic variables of primigravida mothers attending OBG OPD'S of selected hospitals of Bagalkot, N=100

Socio-Demographic Variables Distribution		
Age	Frequency	Percentile
a) Below 30 years	74	74%
b) 31-40 years	17	17%
c) above 41 Years	9	9%
Religion		
a) Hindu	50	50%
b) Muslim	18	18%
c) Christian	18	18%
d) Other	14	14%
Educational Background:		
a) No formal education	24	24%
b) Primary school	19	19%
c) Secondary school	28	28%
d) Degree & above	29	29%
Type of Family		
a) Nuclear	55	55%
b) Joint	45	45%
Occupation of mother		
a) Housewife	58	58%
b) Agriculture	17	17%
c) Private job	21	21%
d) Government employee	4	4%
Spouse support		

a) Yes	92	92%
b) No	8	8%
Family Monthly Income		
a) Below 10000/-	30	30%
b) 10001 - 20000/-	23	23%
c) 20001 - 30000-	41	41%
d) above 30000/-	6	6%
Residential Status		
a) Rural	55	55%
b) Urban	45	45%

Table-5.2: Clinical Characteristics of primigravida mothers attending OBG OPD'S of selected hospitals of Bagalkot, N=100

Clinical Characteristics Distribution		
Weeks Of Gestation	Frequency	Percentile
a) Less than 13 weeks	22	22%
b) 14 -24 weeks	27	27%
c) 25 -36 weeks	30	30%
d) more than 36 weeks	21	21%
Leg cramps		
a) Yes	22	22%
b) No	78	78%
Hyper emesis gravid arum		
a) Yes	18	18%
b) No	82	82%
Sleep medication		
a) Yes	0	0%
b) No	100	100%
H/o Medical illness		
a) Yes	16	16%
b) No	84	84%
Gestational weight gain		
a) Yes	70	70%
b) No	30	30%
Heart burn		
a) Yes	39	39%
b) No	61	61%
Constipation		
a) Yes	41	41%
b) No	59	59%
Frequent urination		
a) Yes	49	49%
b) No	51	51%
Back pain		
a) Yes	46	46%
b) No	54	54%

Part-2: Assessment of sleep quality among primigravida mothers attending OBG OPD'S of selected hospitals of Bagalkot

Table-5.3: levels of sleep quality among primigravida mothers, N=100

Levels of Sleep Quality			
Levels	Scores	Frequency	Percentage
Good sleep quality	0-27	0	0%
Fair sleep quality	28-56	98	98%
Poor sleep quality	57-84	02	02%

Part-3: Assessment of level of anxiety among primigravida mothers attending OBG OPD'S of selected hospitals of Bagalkot

Table- 5.4: Levels of Anxiety among primigravida mothers, N=100

Levels of Anxiety			
Levels	Scores	Frequency	Percentage
Minimal anxiety	0 to 4	0	0%
Mild anxiety	5 to 9	73	73%
Moderate anxiety	10 to 14	23	23%
Severe anxiety	>15	4	4%

Part-4: Assessment of level of stress among primigravida mothers attending OBG OPD'S of selected hospitals of Bagalkot

Table 5.5: Stress levels of primigravida mothers, N=100

Levels of Stress			
Levels	Scores	Frequency	Percentage
Low Stress	0 to 13	11	11%
Moderate Stress	14 to 26	88	88%
High Perceived Stress	27 to 40	1	1%

Part 5: Correlations between sleep quality score and selected psychosocial factors (anxiety, stress) among primigravida mothers.

Table-5.6: Correlations between sleep quality and anxiety among primigravida mothers, N=100

Variables	Pearson correlation coefficient (r)	r ²	P VALUE	Covariance	Statistic	Significance
Sleep quality And Anxiety	0.23	0.05438	0.020 **	2.6692	2.3739	Significant

* Significant P<0.05

Table-5.7: Correlations between sleep quality and stress among primigravida mothers, N=100

Variables	Pearson correlation coefficient (r)	r ²	P VALUE	Covariance	Statistic	Significance
Sleep quality And Stress	-0.16	0.02873	0.092**	-3.053	-1.7026	Not Significant

* Significant P<0.05

Part-6: Association between clinical and psychosocial factors with levels of sleep quality among primigravida mothers

Table: 5.8: Association between the clinical factors with levels of sleep quality among primigravida mothers, N=100

Clinical Factors		Sleep Quality			Association				
		Good	Fair	Poor	Chi square value	df	Table value	P value	significance
Gestational Weeks	<13 Weeks	0	22	0	4.76	6	12.592	0.19	Not significance
	14-24 WEEKS	0	27	0					
	25-36 WEEKS	0	28	2					
	>37 WEEKS	0	21	0					
	TOTAL	0	98	2					
Leg Cramps	Yes	0	22		0.58	2	5.991	0.45	Not significance
	NO	0	76	2					
	TOTAL	0	98	2					
Hyperemesis Gravidarum	Yes	0	18	0	0.45	2	5.991	0.50	Not significance
	NO	0	80	2					
	TOTAL	0	98	2					
Sleep Medication	Yes	0	0	0	0.021	2	5.991	0.89	Not significance
	No	0	98	2					
	Total	0	98	2					
	Yes	0	16	0	0.021	2	5.991	0.53	

H/O Medical Illness	No	0	82	2	0.87	2	5.991	0.35	Not significance
	Total	0	98	2					
Gestational Weight Gain	Yes	0	68	2	1.3	2	5.991	0.25	Not significance
	No	0	30	0					
	Total	0	98	2					
Heart Burn	Yes	0	39	0	1.42	2	5.991	0.23	Not significance
	No	0	59	2					
	Total	0	98	2					
Constipation	Yes	0	41	0	1.96	2	5.991	0.16	Not significance
	No	0	57	2					
	Total	0	98	2					
Frequent Urination	Yes	0	49	0	1.74	2	5.991	0.19	Not significance
	No	0	49	2					
	TOTAL	0	98	2					
Back Pain	Yes	0	46	0	1.96	2	5.991	0.16	Not significance
	NO	0	52	2					
	TOTAL	0	98	2					

* Significant P<0.05

Table No 5.9: Association between the Anxiety levels with levels of sleep quality among primigravida mothers, N=100

Levels Of Anxiety	Sleep Quality			Association				
	Good	Fair	Poor	Chi square value	df	Table value	P value	significance
Minimal Anxiety	0	0	0	12.93	6	12.592	0.0016	significant
Mild Anxiety	0	73	0					
Moderate Anxiety	0	22	1					
Severe Anxiety	0	3	1					
Total	0	98	2					

* Significant P<0.05

Table No 5.10: Association between the Stress levels with levels of sleep quality among primigravida mothers, N=100

Levels Of Stress	Sleep Quality			Association				
	Good	Fair	Poor	Chi square value	df	Table value	P value	significance
Low Stress	0	9	0	0.22	4	9.488	0.89	Not significant
Moderate Stress	0	88	2					
High Perceived Stress	0	1	0					
Total	0	98	2					

* Significant P<0.05

Part-7: Association between socio demographic variables of primigravida mothers with levels of sleep quality.

Table No 5.11: Association between socio demographic variables of primigravida mothers with levels of sleep quality, N=100

Socio Demogrphic Variables		Sleep Quality			Association				
		Good	Fair	Poor	Chi square value	df	Table value	P value	significance
Age In Years	<30 Years	0	72	2	0.72	4	9.488	0.70	Not significant
	31-40 Years	0	17	0					
	> 41 Years	0	9	0					
	Total	0	98	2					
Religion	Hindu	0	48	2	2.04	6	12.592	0.56	Not significant
	Muslim	0	18	0					
	Christian	0	18	0					
	Others	0	14	0					
	Total	0	98	2					

Educational Status	No Education	0	24	0	5.25	6	12.592	0.15	Not significant
	Primary	0	19	0					
	High School	0	26	2					
	Degree	0	29	0					
	Total	0	98	2					
Types Of Family	Nuclear	0	55	0	2.49	2	5.991	0.11	Not significant
	Joint	0	43	2					
	Total	0	98	2					
Occupation Of Mother	House Wife	0	58	0	3.39	6	12.592	0.34	Not significant
	Agriculture	0	16	1					
	Private Employee	0	20	1					
	Govt Job	0	4	0					
	Total	0	98	2					
Spouse Support	Yes	0	90	2	0.18	2	5.991	0.67	Not significant
	No	0	8	0					
	Total	0	98	2					
Family Monthly Income	<10,000	0	28	2	4.76	6	12.592	0.19	Not significant
	10,001 -20,000	0	23	0					
	20,001 -30,000	0	41	0					
	>30,001	0	6	0					
	Total	0	98	2					
Place Of Residence	Rural	0	53	2	1.67	2	5.991	0.20	Not significant
	Urban	0	45	0					
	Total	0	98	2					

* Significant P<0.05

Part-8: Association between socio demographic variables of primigravida mothers with levels of anxiety.**Table No 5.12: Association between socio demographic variables of primigravida mothers with levels of anxiety, N=100**

Socio Demographic Variables		Levels Of Anxiety				Chi square value	df	Table value	P value	significance
		Minimal	Mild	Moderate	Severe					
Age In Years	<30 Years	0	55	15	4	12.54	6	12.592	0.014	Not significant
	31-40 Years	0	15	2	0					
	> 41 Years	0	3	6	0					
	Total	0	73	23	4					
Religion	Hindu	0	40	8	2	9.54	9	16.919	0.15	Not significant
	Muslim	0	14	4	0					
	Christian	0	12	6	0					
	Others	0	7	5	2					
	Total	0	73	23	4					
Educational Status	No Education	0	21	3	0	7.95	9	16.919	0.24	Not significant
	Primary	0	11	6	2					
	High School	0	18	9	1					
	Degree	0	23	5	1					
	Total	0	73	23	4					
Types of Family	Nuclear	0	42	11	2	0.71	3	7.815	0.7	Not significant
	Joint	0	31	12	2					
	Total	0	73	23	4					
Occupation of Mother	House Wife	0	44	12	2	11.9	9	16.919	0.064	Not significant
	Agriculture	0	8	8	1					
	Private Employee	0	19	1	1					
	Govt Job	0	2	2	0					
	Total	0	73	23	4					

Spouse Support	Yes	0	69	19	4	3.73	3	7.815	0.15	Not significant
	No	0	4	4	0					
	Total	0	73	23	4					
Family Monthly Income	<10,000	0	21	7	2	8.2	9	16.919	0.22	Not significant
	10,001 -20,000	0	14	8	1					
	20,001 -30,000	0	35	5	1					
	>30,001	0	3	3	0					
	Total	0	73	23	4					
Place of Residence	RURAL	0	39	12	4	3.42	3	7.815	0.18	Not significant
	URBAN	0	34	11	0					
	TOTAL	0	73	23	4					

* Significant P<0.05

Part-9: Association between socio demographic variables of primigravida mothers with levels of stress.

Table No 5.13: Association between socio demographic variables of primigravida mothers with levels of stress, N=100

Socio Demogrphic Variables		Stress			Association				
		Low	Moderate	High Perceived	Chi square value	Df	Table value	P value	significance
Age in Years	<30 Years	4	69	1	4.92	4	9.488	0.3	Not significant
	31-40 Years	3	14	0					
	> 41 Years	2	7	0					
	Total	9	90	1					
Religion	Hindu	2	47	1	8.95	6	12.592	0.1762	Not significant
	Muslim	4	14	0					
	Christian	3	15	0					
	Others	0	14	0					
	Total	9	90	1					
Educational Status	No Education	0	23	1	10.23	6	12.592	0.12	Not significant
	Primary	3	16	0					
	High School	5	23	0					
	Degree	1	28	0					
	Total	9	90	1					
Types of Family	Nuclear	3	51	1	2.63	2	5.991	0.27	Not significant
	Joint	6	39	0					
	Total	9	90	1					
Occupation of Mother	House Wife	2	55	1	12.58	6	12.592	0.05	Not significant
	Agriculture	3	14	0					
	Private Employee	2	19	0					
	Govt Job	2	2	0					
	Total	9	90	1					
Spouse Support	Yes	7	84	1	2.78	2	5.991	0.25	Not significant
	No	2	6	0					
	Total	9	90	1					
Family Monthly Income	<10,000	2	27	1	15.58	6	12.592	0.016	significant
	10,001 -20,000	1	22	0					
	20,001 -30,000	3	38	0					
	>30,001	3	6	0					
	Total	9	90	1					
Place Of Residence	Rural	7	47	1	2.99	2	5.991	0.22	Not significant
	Urban	2	43	0					
	Total	9	90	1					

* Significant P<0.05

DISCUSSION

This study included a sample of 100 primigravida mothers attending OBG OPD'S of HSK hospital and Government District Hospital of Bagalkot.

The findings of this study highlight the high prevalence of fair to poor sleep quality and associated psychosocial factors among primigravida mothers in Bagalkot, Karnataka. While most mothers reported fair sleep quality, the presence of mild anxiety and moderate stress in a significant number of participants underscores the psychological burden of pregnancy.

The study revealed that 98% of primigravida mothers had fair sleep quality, while 2% had poor sleep quality. None of the participants reported good sleep quality. The maximum score of sleep quality score among primigravida mothers is 57, Minimum score is 35. The mean and SD sleep quality score among primigravida mothers is 44.25 ± 4.74 .

Distribution of primigravida mothers according to their level of anxiety shows that majority (73%) of primigravida mothers had mild anxiety, (23%) of primigravida mothers had moderate anxiety and remaining 4% of them had severe anxiety. No cases of minimal anxiety were observed. The maximum score of anxiety among primigravida mothers is 16; Minimum score is 7. The mean and SD of anxiety among primigravida mothers is 8.59 ± 2.41 .

Distribution of primigravida mothers according to their level of stress. It shows that majority (88%) of primigravida mothers had moderate stress, (11%) of primigravida mothers had low stress and remaining 1% of them had high perceived stress. The maximum score of anxiety among primigravida mothers is 27; Minimum score is 11. The mean and SD of anxiety among primigravida mothers is 18.65 ± 3.8 .

Statistical test Karl Pearson's correlation coefficient applied to find relationship between sleep quality and levels of anxiety of primigravida mothers. Results of the Pearson correlation indicated that there is a significant mild positive relationship between anxiety and sleep quality, ($r(98) = .233, p = .020$) of primigravida mothers suggests that higher anxiety levels may slightly impact sleep quality.

Statistical test Karl Pearson's correlation coefficient applied to find relationship between sleep quality and levels of stress of primigravida mothers. Results of the Pearson correlation indicated that there is a significant mild negative relationship between stress and sleep quality of primigravida mothers. ($r(98) = -0.169, p = .092$) indicating that stress may not have a direct measurable impact on sleep quality in this sample.

Hypothesis based Discussion

H1: There will be a significant correlation between sleep quality and selected psychosocial factors (stress anxiety) among primigravida mothers.

The findings supported **H1**, indicating a significant correlation between sleep quality and anxiety levels among primigravida mothers. Higher anxiety was associated with poorer sleep quality, aligning with existing literature that suggests anxiety can disrupt sleep patterns. However, the study did not find a significant correlation between stress and sleep quality, suggesting that while stress is a factor, it may not directly impact sleep in the same manner as anxiety.

H2: There will be a significant association between clinical factors and selected psychosocial factors (stress anxiety) with levels of sleep quality among primigravida mothers.

H2 was partially supported, as the study identified certain clinical factors that influenced sleep quality and psychosocial factors. For instance, clinical issues such as gestational weight gain and physical discomfort were found to correlate with increased anxiety and stress levels, which in turn affected sleep quality. This highlights the importance of addressing clinical factors in prenatal care to improve sleep outcomes.

H3: There will be a significant association between levels of sleep quality and selected psychosocial factors (stress anxiety) with selected socio-demographic variables of primigravida mothers.

The findings related to **H3** were mixed. While some socio-demographic variables, such as family monthly income, showed a significant association with stress levels, other variables like age and education did not demonstrate a significant impact on sleep quality. This suggests that socio-economic factors may play a role in influencing psychosocial stressors, which can subsequently affect sleep quality.

LIMITATIONS

The study was limited to a sample size of 100 primigravida mothers. The cross-sectional design of the study captures data at a single point in time, which limits the ability to establish causal relationships between sleep quality, anxiety, and stress. The study excluded mothers who were extremely ill or unable to cooperate during data collection. The study focused on anxiety and stress as psychosocial factors, other relevant factors such as social support, coping mechanisms, and lifestyle habits were not explored.

RECOMMENDATIONS

Future studies should aim for a larger sample size to improve the statistical power and generalizability

of the findings. Researchers should consider including a more diverse demographic representation, encompassing various socio-economic, cultural, and geographical backgrounds to better understand the influences on sleep quality among primigravida mothers. Implementing a longitudinal study design would allow researchers to track changes in sleep quality, anxiety, and stress over time.

CONCLUSIONS

The conclusion emphasizes that healthcare providers should address sleep quality and psychosocial factors as a routine part of prenatal care. Implementing screening for anxiety and stress, along with providing strategies to improve sleep quality, is recommended to enhance maternal and infant well-being. The findings contribute to the understanding of the interconnectedness of clinical and psychosocial factors and their impact on maternal health.

Ethical Clearance

Ethical clearance was obtained from the institutional ethical committee of BVVS Sajjalashree Institute of Nursing Sciences, Bagalkot.

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