Journal of Advanced Zoology

ISSN: 0253-7214

*Volume **45 Special** Issue **02 Year 2023** Page **1564:1571***

"A STUDY TO ASSESS RELATIONSHIP BETWEEN BACK PAIN AND BODY POSTURE AMONG PRIMI ANTENATAL MOTHER DURING THIRD TRIMESTER IN SELECTED HOSPITALS NADIAD"

Ms. Mansi Patel[1], Mr.Parth Vaghela [2], Ms. Payal Sutariya [3], Ms. Prapti Kapatel[4], Ms. Priyanka Vankar[5],Ms Ripal Parmar[6]

1- Assistant professor, Dinsha Patel college of Nursing.

2-6 Final Year B.sc Nursing, Dinsha Patel College of Nursing, Nadiad.

Corresponding Author: , Mr.Parth Vaghela [2], Ms. Payal Sutariya [3], Ms. Prapti Kapatel[4], Ms. Priyanka Vankar[5],Ms Ripal Parmar[6]

Guide: Ms Mansi Patel .**Email Id:**

Address: Dinsha Patel College of Nursing, Behind Hyundai Showroom, College road, Nadiad, Kheda District, Gujarat- 387001.

Article History

Received: 12 March 2023

Revised: 21 August 2023

Accepted: 09 October 2023

ABSTRACT

Introduction: any females experience back pain during pregnancy. The causes are manifold: their weight increase on the one hand, and the specific physiology of the spine on the other. During pregnancy, a woman's body weight increases by 15 to 25 percent; this signifies a greater burden on the tendons, ligaments, and joints[1]. Furthermore, relaxin and estrogen loosen the ligaments and thus create an additional predisposition for injury[23]. The enlarged uterus and the increase in breast volume shift the body's center of gravity to the front. The pelvis is tilted simultaneously and lumbar lordosis increases1. **Material and Methods**:The study is Quantitative non experimental in the nature. research approach through research design descriptive co-relational study was adopted. Non-probability convenient sampling method was used to enrol 50 women residing at Nadiad Maternity Hospital. The data were collected structure questionnaire on Body posture in day to day activities and pain scale.Data analysis was done by descriptive and inferential statistics. **Result:** Assessment of Body posture of Primi Third Trimester Antenatal Mother in day to day life activity.Among the 50 Antenatal Mother 07(40%) had ill body posture, 38(78%) had Moderately good body posture, 04(08%) had good body posture .The chi-square is significant and that shows there was an association between back pain & body posture.In order to assess relationship between back pain & body posture, Structured Questionnaire was made consisting 15 questions with 02 options in the form of image.To evaluate back pain of Primi Antenatal Third Trimester Mother we took visual Analog pain scale with 0-10 score.In that 11(22%) woman had low level of pain.39(78%) had moderate level of pain and no any woman had sever pain among that 50 samples.

Conclusion: The study concluded that antenatal mothers body posture have positive relationship with back pain . and level of pain is associated with

body posture.
Keywords: Assessment, back pain, body posture, primi mothers.

Introduction

"Pregnancy is a unique, exciting and often joyous time in a women's life,as it gives priority to the women's amazing creative and nurturing powers while providing a bridge to the future.it is a period of expectant waiting and one that all of us aspire to experience at least once in our life time. During pregnancy,many women experience intence lower back pain."

Conservative(Non-surgical)treatment of back pain in pregnancy generally includes the performance of appropriate exercise and use of proper body mechanics.This efforts promote and support proper posture , which is essential to avoiding unnecessary stress to supporting structure.Maintaining an optimal level of function throughout your pregnancy and having the least amount of discomfort are the main goals of treatment for back pain during pregnancy.

Many females experience back pain during pregnancy . The causes are manifold: their weight increase on the 0ne hand , and the specific physiology of the spine on the other.During pregnancy ,a women's body weight increses by 15 to 25 percent; this signifies a greater burden on the tendons , ligaments,and joints Furthermore, relaxin and estrogen loosen the ligaments and thus create an additional predisposition for injury[2, 3]. The enlarged uterus and the increase in breast volume shift the body's center of gravity to the front. The pelvis is tilted simultaneously, and lumbar lordosis increases[1].

The aim of the present study was to determine the time of onset of back pain during pregnancy, and the accompanying changes in posture with respect to the kyphosis angle, the lordosis angle, and trunk inclination. Data concerning posture analysis were processed with the aid of a biomechanical model developed by the authors, in order to draw conclusions about bending moments and forces at the spine. Simultaneously, we determind the actual trunk strength required in the individual trimesters of pregnancy. The following questions were addressed: Does a significant association exist between the infant's weight, the mother's weight increase during pregnancy, and a specific alteration of the spine? How does the alteration of the spine influence back pain in pregnant females? Can the forces determined in this setting provide an explanation.

Need of the study

The need for this study is to understand the impact of body posture on back pain in primi antenatal mothers. During pregnancy, the body undergoes several physiological changes, including weight gain, which can affect the musculoskeletal system[1]. These changes can alter musculoskeletal alignments and affect the key areas of the body

such as spinal curvature, balance, and gait patterns[2]. These changes can lead to an increase in back pain and the risk of falls[3]. The study will help identify the relationship between body posture and back pain in primi antenatal mothers and provide insights into how to prevent or alleviate back pain during pregnancy.

Aims of the study

This study will help to assess the relationship between back pain and body posture among primi antenatal third trimester mothers by assessing their body posture in day to dai activity and evaluating the pain with the help of visual analog pain scale.

Objectives of the study

1. To identify the body posture maintained by primi mothers.

2. To determine the intensity of back pain among primi mothers.

3. To find out the relationship between back pain & body posture among primi mothers.

Hypothesis

1.There is a significant relationship between body posture & back pain among primi mothers.

Methodology

Research approach:. The research approach adapted for this study is quantitative non experimental.

Research design: The research design selected for the present study is descriptive co-relational study

Variables

1. **Demographic Variable**: In this study Age, Religion, occupation, Education, Income, residence, family type.
2. **Independent variable:** In this study Independent variable is back pain.
3. **Dependent variable:** -

Research setting: study was conducted in selected maternity hospitals of nadiad

Target Population It involves primi antenatal third trimester mother in maternity hospitals of nadiad.

Sampling technique : The sampling technique used in the study was Non-probability convenient sampling technique

Sample size: The sample consists of 50 women at Nadiad Maternity hospital..

The non-probability convenient sampling method was used to data collected using demographic data and structured questionnaire on body posture of third trimester mother in day to day activities. Data analysis was done mainly using descriptive statistics. The process of validity was done between 11/02/2023 to 02/03/2023. Data collection tool to 5 experts for the content validity. The process of reliability was a done after the validity of tool by advice from 5 experts. The score of reliability is 0.87 so the study was feasible to conduct.

RESULT

SECTION I:

This section deals with analysis and assessment of distribution of sample characteristics according to socio demographic variables of participants.

- **Table1 :Frequency and percentage distribution of selected demographic variable.**

SR No	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1	**Age**		
	18-22 Years	12	24%
	23-27 Years	27	54%
	28-32 Years	10	20%
	33-35Years	01	02%-
2	**Religion**		
	Hindu	42	84%
	Muslim	06	12%
	Christian	02	04%
	Others	-	-
3	**Residence**		
	Urban	26	52%
	Rural	24	48%
4	**Education**		
	Illiterate	04	08%
	Primary	33	66%
	Secondary	09	18%
	Graduate	04	08%
5	**Occupation**		
	Government	-	-
	Employee	06	12%
	Private Employee	01	02%
	Self Employee	43	86%
	Housewife		
6	**Income**		
	<50000	02	04%
	60000-10000	24	48%
	11000-15000	16	32%
	>16000	08	16%
7	**Family Type**		
	Joint	37	74%
	Nuclear	13	26%

Table 1 and Figure 1depicts that the comparison of frequency and percentage of demographic data.

The data shows that out of 50 samples 12(24%) were in the age group of 18 to 22 years, 27(54%) were in the age group of 23 to 27 years, 10(20%) were in the age group 28 to 32 years, 1(2%) sample belongs to 33 to 35 years.

Among the primi Antenatal mothers majority 42(84%) belongs to Hindu religion, 06(12%) were belongs to Muslim, 02(04%) were belongs to Christian religion.

As regard to residence 26(52%) of primi Antenatal mothers are from Urban area, 24(48%) are from rural area.

As regard to Education 04(08%) were illiterate, 33(66%) were primary educated, 9(18%) were secondary educated, 04(08%) were graduated.

As regard to occupation 06(12%) were private Employee, 1(02%) were self employee, 43(86%) were housewife.

As regard to income 02(04%) were having <5000 income, 24(48%) were having 6000-10000 income 16(32%) were having 11000-15000 income, 08(16%) were having >16000 income.

As regard to family type 37(74%) were from joint family, 13(26%) were from nuclear family.

SECTION-II:

Assessment of body posture of primi Antenatal mother.

- **Table-2 Score of posture frequency & percentage wise**

SCORE OF POSTURE	NUMBER OF PRIMI ANTENATAL THIRD TRIMESTER MOTHER	
	FREQUENCY	PERCENTAGE
Ill(1-5)	8	14%
Moderately good (6-10)	38	78%

Good(11-15)	4	8%

Table 2:Assessment of Body posture of Primi Third Trimester Antenatal Mother in day to day life activity.

Among the 50 Antenatal Mother 07(14%) had ill body posture, 38(78%) had Moderately good body posture, 04(08%) had good body posture .

The chi-square is significant and that shows there was an association between back pain & body posture.

In order to assess relationship between back pain & body posture, Structured Questionnaire was made consisting 15 questions with 02 options in the form of image.

- Table2 Figure 2showed the frequency distribution and percentage of score of body posture.

SECTION III:

➢ **TABEL 3: level of Pain**

LEVEL OF PAIN	LEVEL OF PAIN AMONG PRIMI ANTENATAL THIRD TRIOMESTER MOTHERS	
	FREQUENCY	PERCENTAGE
Low (1-4)	11	22%
Moderate (5-7)	39	78%
Severe (8-10)	0	0%

To evaluate back pain of Primi Antenatal Third Trimester Mother we took visual Analog pain scale with 0-10 score.

In that 11(22%) woman had low level of pain, 39(78%) had moderate level of pain and no any woman had sever pain among that 50 samples.

Discussion

The basic aim of the current study is to assess the relationship between body posture and back pain among primi third trimester antenatal mothers in selected hospital.

The study has been conducted by descriptive co-relational study. Samjulaxmi hospital of Nadiad has been selected for conducting the study. The sample size was 50; mothers having back pain due to ill body posture. The responses were analyzed through descriptivestatistics (Frequency, percentage) Discussion on the findings was arranged based on the objective of the study.

Conclusion

The researcher during the clinical observed the poor maintenance of posture during work and its results in many discomforts mainly among primi- gravid women which motivated the researcher to take up a study on assessment of relationship between body posture and back pain among primi antenatal mothers during 3" trimester and thereby improving the daily activities of living among the primi-gravid women.

In that 11(22%) woman had low level of pain, 39(78%) had moderate level of pain and no any woman had sever pain among that 50 samples.

Among the 50 Antenatal Mother 07(40%) had ill body posture, 38(78%) had Moderately good body posture, 04(08%) had good body posture .

RECOMMENDATION

On the basis of the findings of the study following recommaendations have been made:

- The same study can be done among mothers of first and second trimester on assessment of back pain.
- A comparative study can be done among urban and rural primi antenatal mothers on assessment of back pain on account of body posture.
- A similar study can be replicated on large sample to generalize the findings.
- Similar study can be replicated with multipara mother on the assessment of relationship between back pain and body posture.

Conflict of interest

The authors certify that not be involved in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

Funding Source: Self funded

References

1.Lautieri, A. (2019, March 18). Introduction to pregnancy - trimesters, stages of labor & more. Mentalhelp.net; admin. https://www.mentalhelp.net/pregnancy.

2. Brain M, Spine. Posture & body mechanics [Internet]. Mayfieldclinic.com. [cited 2023 Sep 30]. Available from: https://mayfieldclinic.com/pe-posture.htm.

3. Posture during pregnancy [Internet]. Cleveland Clinic. [cited 2023 Sep 30]. Available from: https://my.clevelandclinic.org/health/articles/6913-pregnancy--correct-posture--body-mechanics.

4. Low back pain related to hyperlordosis [Internet]. Physiopedia. [cited 2023 Sep 30]. Available from: https://www.physio-pedia.com/Low_Back_Pain_Related_to_Hyperlordosis.

5.Souza DGD, Sandhya D. Body posture and back pain among primi antenatal mothers during 3rd trimester. J Nurs Trendz [Internet]. 2019;10(2):18. Available from: http://dx.doi.org/10.5958/2249-3190.2019.00014.2.

6.Guide to good posture. Bones, Joints and Muscles [Internet]. 2017 [cited 2023 Sep 30]; Available from: https://medlineplus.gov/guidetogoodposture.html.

7.Schröder G, Kundt G, Otte M, Wendig D, Schober H-C. Impact of pregnancy on back pain and body posture in women. J Phys Ther Sci [Internet]. 2016 [cited 2023 Sep 30];28(4):1199–207. Available from: http://dx.doi.org/10.1589/jpts.28.1199.

8.Bryndal A, Majchrzycki M, Grochulska A, Glowinski S, Seremak-Mrozikiewicz A. Risk factors associated with low Back Pain among A group of 1510 pregnant women. J Pers Med [Internet]. 2020 [cited 2023 Sep 30];10(2):51. Available from: https://www.mdpi.com/2075-4426/10/2/51.

9.Low back pain and pregnancy [Internet]. Physiopedia. [cited 2023 Sep 30]. Available from: https://www.physio-pedia.com/Low_Back_Pain_and_Pregnancy.

10. Researchgate.net. [cited 2023 Sep 30]. Available from: https://www.researchgate.net/publication/265057115_Spinal_posture_and_pelvic_position_during_pregnancy_a_prospective_rasterstereographic_pilot_study.

11. Souza, D. G. D., & Sandhya, D. (2019). Body posture and back pain among primi antenatal mothers during 3rd trimester. The Journal of Nursing Trendz, 10(2), 18–21. https://www.indianjournals.com/ijor.aspx?target=ijor:jnt&volume=10&issue=2&article=004.