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Knowledge And Attitude Towards Normal Physiologic Childbirth Measures Among Parturient Mothers

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ABSTRACT

Labor is an anxiety producing situation as well as it gives joy and happiness at the end of labour. Childbirth experience has been influenced by many factors such as knowledge about the labor process, quality of care and services, severity of labor pain, labor pain management, interventions during intranatal period. Normal physiologic childbirth measures are physical comfort measures which can improve fetomaternal parameters, progress in labor process, reduce intensity of labor pain and change attitude of parturient mothers.

Aim – To assess knowledge and attitude towards Normal Physiologic Childbirth Measures.

Methodology – A quantitative and a qualitative (mixed) research approach and an experimental research design was used for the present study. The study was conducted in labour room at Krishna Hospital, Karad. The population comprises Antenatal Mothers attending antenatal OPD at K.H. and M.R.C., Karad. Study was conducted on 110 participants, which were selected by using Simple Random Sampling Technique. Antenatal Mothers attending antenatal OPD for Antenatal visits during third trimester were included and High-risk Antenatal mothers (advanced maternal age, pregnancy complications, IUGR and malposition's etc.), multiple pregnancy, hypertensive disorders, diabetes mellitus, bad obstetrical history were excluded from study. The collected data was analyzed in terms of the objectives of the study by using descriptive (frequency and percentage) and inferential statistics (paired t-test and Chi-square).

Conclusion- Parturient mothers were gain Knowledge about Normal Physiologic Childbirth Measures which was helpful to improve feto-maternal parameters by changing their attitude towards it

Keywords: *Normal Physiologic Childbirth measures, Feto-maternal parameters, Parturient mother, relaxation techniques, lady companion*

1. INTRODUCTION

Pregnancy is indeed a profound and transformative experience in a woman's life, filled with joy and anticipation for both the couple and their families. The journey from conception to childbirth encompasses a range of emotions and physical changes [3]. Childbirth, the culmination of this journey, brings a new life into the world and is often described as a deeply moving experience. Childbirth experience has been influenced by many factors such as knowledge about the labor process, quality of care and services, severity of labor pain, method of labor pain management and medical interventions. The interventional study conducted by M. Somayeh, M. Khadigeh et. al. [1] noted that complete implementation of the normal physiologic childbirth program can reduce the severity of labor pain. In the present study researcher is going to assess Knowledge about Normal Physiologic Childbirth Measures. It includes ambulation, Lamaze technique, audio analgesia and Bradley method. Bradley method it's a new measure which was used by few researchers in their studies. There are a series of courses that emphasize nutrition and exercise, relaxation techniques to manage pain and the involvement of the partner as a coach [2].

Normal Vaginal Delivery of baby is a natural procedure which gives joy and happiness to parturient mother and her family. But now a days it needs medical interventions. Still, it can be possible to have natural birth following nonpharmacological modalities. Normal Physiologic Childbirth Measures during labour is more cooperative to shorten the duration of labour and make it relaxed. A Primigravida woman having fear of labour process, it may be affect on fetomaternal parameters [9]. Skilled maternity care plays a crucial role during the intranatal period, as this is the time when midwives and healthcare

providers can monitor both the mother and the fetus for any abnormalities [10]. Their expertise allows for timely interventions for the safety and well-being of both mother and baby

2. NEED FOR STUDY

Primipara mothers are unknown about labour process, so when they go through it, it will be unbearable experience for them. Normal Physiologic Childbirth Measures are supportive for improving fetomaternal parameters. Its knowledge prior intranatal period is necessary, which can change maternal attitude towards it. Creating a homely atmosphere can significantly help a laboring mother cope with the challenges of childbirth. One of the primary concerns for many women during labor is managing the pain associated with contractions [11]. Having a supportive companion, such as a partner or a close friend, can provide emotional comfort and assistance, making the labor experience more meaningful and manageable. Numerous studies have highlighted the positive impact of having a support person present during labor Process [12]. Continuous labor support can lead to various benefits for both the mother and baby, including reduced anxiety and pain levels, shorter labor duration and a lower likelihood of interventions such as cesarean sections. This presence can create a calming atmosphere, allowing the mother to feel more empowered and connected during the birthing process. The importance of a supportive companion during labor cannot be overstated; Knowledge about Normal Physiologic Childbirth Measure enhances the overall experience and promotes better outcomes for both mother and child [13].

3. AIM OF THE STUDY

To assess Knowledge and attitude about Normal Physiologic Childbirth Measure.

4. MATERIALS AND METHODS

Study objectives –

1. To Know the Knowledge about Normal Physiologic Childbirth Measures among parturient mothers.
2. To know the attitude of parturient mothers towards Normal Physiologic Childbirth Measures among parturient mothers.

Study design: The present research study utilized an experimental research design and was conducted at Krishna Hospital, Karad from October 2022 to March 2023. It's often employed to assess Knowledge and attitude towards Normal Physiologic Childbirth Measures among parturient mothers. **Sample size:** According to the study conducted by S. Choudhary, K. Prakash et al. [3], the sample size for the study was initially calculated to be 102 participants. However, in the present study, the researchers decided to include 110 participants in total, which was a slight increase from the originally calculated sample size. This decision may have been made to ensure a more robust statistical analysis or to account for potential dropouts or incomplete data during the course of the study.

The 110 participants were divided into two groups:

Study group: 55 participants who were trained in the Normal Physiologic Childbirth Measures. Which involves education on pain management, relaxation techniques and active partner involvement.

Control group: 55 participants who received standard care during their pregnancy and labor, without any knowledge about Normal Physiologic Childbirth Measures**.**

Inclusion and Exclusion Criteria –

Antenatal Mothers attending antenatal OPD during 3rd trimester were included in the present study. Parturient mothers who are at high risk who have advanced maternal age, pregnancy complications (placental position, abnormal fetal growth and positions, rhesus sensitization etc.), multiple pregnancy, hypertensive disorders, diabetes mellitus, bad obstetrical history etc. **Ethics approval** Present study was approved by institutional ethical committee of the KIMSDU, Karad 23/06/2022. Protocol No/Ref. No. KIMSDU/IEC/06/2022.

Pilot study in order to test feasibility of the study and to pretest the research instrument used in the present study. A period of pilot study was from 2/5/2022 to 2/7/2022 (2months). A pilot study was carried out on 10 pregnant women who came for ANC Visit, who were selected by using Simple Random Sampling Technique (lottery method) in same setting from main study.

There were some problems encountered during pilot study that were lack of time management, lack of communication, confusion about research content.

The purposes of pilot study were to:

1) Assess knowledge and attitude towards Normal Physiologic Childbirth Measures among parturient mothers.

2) Assess the effect of Normal Physiologic Childbirth Measures on the fetomaternal parameters.

3) Find out the feasibility of conducting the final study.

4) Determine the methods of statistical analysis.

Reliability of Tool - Reliability of tool was assessed after pilot study by using Cron Bach Alpha method. Reliability correlation coefficient value for knowledge was 0.68 and attitude was 0.69. It was questionable tool for assessing knowledge and attitude towards Normal Physiologic Childbirth Measures.

5. METHODOLOGY

The study followed a structured and ethical approach to ensure validity and reliability in assessing the knowledge and attitude towards Normal Physiologic Childbirth Measures among parturient mothers.

1. Ethical Approval and Informed Consent:

Formal Permission: Ethical approval was obtained from the Ethical Committee of KVV, Karad, ensuring that the study adhered to ethical guidelines and protocols. Present study approved by institutional ethical committee of the KIMSDU, Karad 23/06/2022. Protocol No/Ref. No. KIMSDU/IEC/06/2022.

Informed Consent: Participants were fully informed about the study's objectives and procedures. Consent was obtained from each participant before they enrolled in the study, ensuring their voluntary participation.

2. Study Design and Sampling:

Simple Random Sampling: The study utilized simple random sampling to select participants. Antenatal mothers attending the Antenatal Clinic during third trimester was a potential participant. **Sample Size**: A total of 110 parturient mothers were included in the study 55 in the experimental group and 55 in the control group (those who received routine care). **Selection Process**: On a daily basis, 10 pregnant women were selected randomly from the ANC OPD, ensuring the sample was representative of the population attending the clinic during the study period. **Pre-test** Pre-test of knowledge and attitude about Normal Physiologic Childbirth Measures was taken before intervention.

4. Intervention (Experimental Group):

Educational Sessions: The experimental group received specific training over two interactions on the Normal Physiologic Childbirth Measures, which included Lamaze technique, audio analgesia, ambulation and Bradley method. Bradley method included following aspects which are as follows:

Exercises: physical positions to ease labor.

Relaxation Techniques: Strategies to manage pain and reduce anxiety during labor.

Nutritional Guidance: Advice on a balanced diet that supports labor and delivery, helping the parturient mother maintain strength during childbirth.

Family Involvement: The women were encouraged to involve close relatives or their partners in the learning process, ensuring they were well-prepared for the birth.

5. Intranatal Care:

Implementation of Normal Physiologic Childbirth Measures: When the parturient mothers in the experimental group went into a labor, Normal Physiologic Childbirth Measures were provided to them, which likely included continuous emotional and practical support, relaxation techniques and positions with the help of lady companion that facilitated easier delivery.

Fetomaternal Assessment: During labor, key fetomaternal parameters were assessed to monitor the health of both mother and baby.

6. Control Group:

The control group received routine care as per standard hospital protocols without any special intervention or training in Normal Physiologic Childbirth Measures. This allowed for comparison between the two groups regarding their experiences and outcomes.

7. Post-Intervention Phase (Post-test): 24 hours after delivery post- test was taken from both groups which was about knowledge and attitude.

Data Analysis: The data collected during the pre-test and post-test were compared to evaluate the knowledge about the Normal Physiologic Childbirth Measures and attitude of parturient mothers towards it.

Statistical analysis

The data was compiled in Microsoft Excel and analyzed using SPSS Statistics Windows, Version 19 The analysis included

descriptive and inferential statistics in which paired t test and chi-square test were used to analyze data.

6. MATERIAL AND METHOD

An experimental research design and (mixed) research approach was used. The study was conducted in labour room at Krishna Hospital, Karad. Population comprises Antenatal Mothers attending antenatal OPD at K.H. and M.R.C., Karad. Antenatal Mothers attending antenatal OPD for Antenatal visits during 3rd trimester were included and High-risk Antenatal mothers (advanced maternal age, pregnancy complications, IUGR and malposition's etc.), multiple pregnancy, hypertensive disorders, diabetes mellitus, bad obstetrical history were excluded from study. Study participant was selected by using Simple Random Sampling Technique. Total 110 participants were included in the study (According to S. choudhary, K. Prakash et.al. [3]). 55 participants were included in control group and 55 were experimental group by using lottery method. Present study approved by institutional ethical committee of the KIMSDU, Karad 23/06/2022. Protocol No/Ref. No. KIMSDU/IEC/06/2022. Participants were fully informed about the study's objectives and procedures and thereafter informed Consent was taken from each study participants before they enrolled in the study. Pre-test of knowledge and attitude about Normal Physiologic Childbirth Measures was taken before intervention for both groups. Knowledge about Normal Physiologic Childbirth Measures was provided to Study group and routine care provided control group. Post- test was taken from both groups which was about knowledge and attitude 24 hours after delivery of the baby.

• **Data Analysis:** The collected data was analyzed by using descriptive and inferential statistics. Descriptive statistics was frequency and percentages mean SD. The inferential statistic was paired t-test and Chi-square.

Table no. 1 – Mean ± SD of knowledge score of parturient mothers regarding Normal Physiologic Childbirth Measures.N= 110

Knowledge	Group	Minimum Score	Maximum Score	Mean ± SD	Paired t value	P value
Pre-test	Study	2.00	15.00	7.0 ± 3.33	0.7206	0.4743
	Control	2.00	16.00	7.5 ± 3.87		
Post-test	Study	3.00	29.00	15.7 ± 5.66	7.911	< 0.0001
	Control	2.00	17.00	8.20 ± 3.84		

Above table depicts that Mean ± SD of Pretest of knowledge score was quite similar for both groups, but the posttest Mean ± SD of knowledge score was increased in study group than control group. There was significant difference was found between mean pretest and posttest knowledge score of mothers from study group and control group (P< 0.0001).

Table No. 2 - Score System of knowledge N= 110

Knowledge	Score	Study group		Control group	
		Pretest	Posttest	Pretest	Post-test
Poor	0 - 7	34(61.81%)	7(12.73%)	31(56.36%)	29(52.73%)
Average	>7-14	20(36.37%)	15(27.27%)	22(40%)	23(41.82%)
Good	>14 – 21	01(1.82%)	33(60%)	02(3.64%)	03(5.45%)

Above table depicts that in pretest majority mothers from study group had poor knowledge, whereas in posttest it improves that majority mothers got good knowledge about Normal Physiologic Childbirth Measures.

Table No. 3 - Mean ± SD of attitude score of parturient mothers regarding Normal Physiologic Childbirth Measures. N= 110

Attitude	Group	Minimum	Maximum	Mean ±SD	Paired t value	P value
Pre-test	**Study**	9.00	34.00	13.02 ± 1.06	0.7075	0.4823
	Control	4.00	18.00	13.28 ± 2.39		
Post-test	**Study**	4.00	36.00	30.20 ± 7.32	15.524	< 0.0001
	Control	12.0	26.0	13.98 ± 2.32		

Above table depicts that Pre-test Mean ± SD of attitude score was similar for both the groups, but in post-test attitude was positive towards Normal Physiologic Childbirth Measures. There was significant difference was found in Mean ± SD of Posttest attitude score of study and control group (P< 0.0001).

Table No. 4 - Distribution of parturient mothers according to Attitude score in Pre-test and Post-test N= 110

Attitude	Score	Study group		Control group	
		Pre-test	**Post-test**	**Pre-test**	**Post-test**
Negative attitude	≤ 12	09 (16.36%)	2(3.63%)	22(40%)	15(27.27%)
Neutral attitude	13 – 24	26 (47.27%)	8 (14.55%)	33(60%)	39(70.91%)
Positive attitude	25 -36	20 (36.37%)	45(81.82%)	0(0.0%)	1(1.82%)

Above table shows a positive shift in attitudes among mothers regarding normal physiologic childbirth measures. The pre-test results indicate a neutral stance, while the post-test reveals a majority now holding a positive attitude. This suggests that whatever intervention or educational efforts were implemented effectively influenced their perceptions and beliefs about Normal Physiologic Childbirth Measures.

7. DISCUSSION

Childbirth experience has been influenced by many factors such as knowledge about the labor process, quality of care and services, severity of labor pain, method of labor pain management, medical interventions and mother's attitude towards labor process [1].

In the present study researcher has assessed Knowledge about Normal Physiologic Childbirth Measures, among parturient mothers. Normal physiologic childbirth measures include ambulation, Lamaze technique, and audio analgesia and Bradley method. In the present study pregnant mother's female close relative was involved to help a parturient mother. For managing labour pain nutrition, exercise, relaxation techniques were emphasized. [5] In the present study out of 55 pregnant mothers from study group pre-test of knowledge score was taken during 1st interaction. In pre-test 7(12.73%) pregnant mothers had poor knowledge, 20(36.37%) pregnant mothers had average knowledge and 01(1.82%) had good knowledge. Knowledge score was improved after giving Knowledge about Normal Physiologic Childbirth Measures to study group. Post- test was taken on next day of parturient mother's delivery. In post-test 34(61.81%) pregnant mothers had poor knowledge, 15(27.27%) pregnant mothers had average knowledge and 33(60%) had good knowledge. Present study's findings supported by study of Mrs. D. Subasri, Dr. Susila. C. et. al. **[6]**, but they had studied knowledge about Bradley method only among husbands of antenatal mothers. In their study knowledge score was assessed through Pre-test and post-test by using self-structured questionnaire among 30 husbands of antenatal mothers. Out of 30 husbands of antenatal mothers, in pre-test 6 (20%) husbands of antenatal mothers had inadequate knowledge, 24(80%) had moderate knowledge and 0(0%) of them had adequate knowledge. Knowledge about Bradley method was improved after providing Structured Teaching Programme on Bradley method. In post-test 0(0%) husbands of antenatal mothers had inadequate knowledge, 8 (26.67%) of them had moderate knowledge and 22 (73.33%) of them had adequate knowledge [5].

As compare to present study according to Nagvanshi S., Linson C. et. al. [7] study the out of 50 primigravid mothers 5 (10%) Primigravida mothers had adequate knowledge, 21 (42%) of Primigravida mothers had moderate knowledge and 24 (48%) of Primigravida mothers had inadequate knowledge about Lamaze technique. In the present study attitude score regarding Normal Physiologic Childbirth Measures was assessed in pregnant women. Pre-test was taken in 1st interactive session of the study. In Pre – test of study group out of 55 pregnant women 09 (16.36%) women had Negative attitude, 26 (47.27%) of them had Neutral attitude and 20 (36.37%) pregnant women had Positive attitude. Post- test was taken on next day of parturient mother's delivery. In post-test out of 55 pregnant women 2(3.63%) had negative attitude, 8 (14.55%) of them had neutral attitude and 45(81.82%) had positive attitude. These findings supported by study of Mrs. D. Subasri, Dr. Susila. C. et. al.[6] in their study attitude score about Bradley method among husbands of antenatal mothers was assessed through Pre-test and post-test by using self-structured questionnaire. Its findings were out of 30 husbands of antenatal mothers in pre-test 5(16.67%) husbands of antenatal mothers had Poor attitude, 25(83.33%) had Moderate attitude and 0(0.00%) had good attitude. After providing Structured Teaching Programme on Bradley method attitude of husbands of antenatal mothers were improved, whereas 0 (0.00%) of them had poor attitude, 7(23.33%) of them had moderate attitude and 23 (76.67%) of them had good attitude.

An expected outcome was assessed as Normal Physiologic Childbirth Measures was effective to reduce level of labour pain, improvement in feto-maternal parameters and increase level of knowledge about Normal Physiologic Childbirth Measures and change attitude of parturient mothers towards it.

8. CONCLUSION

Knowledge about labor process as well as about Normal Physiologic Childbirth Measures can play major role in labour process, which can make positive attitude of parturient mothers towards Normal Physiologic Childbirth Measures. Based on the study findings researcher has come to know that how much knowledge about Normal Physiologic Childbirth Measures parturient mothers having. The present study was helpful for not only primipara but also multipara mothers to make this experience excellent, effective and memorable.

Conflict of Interest – Nil

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